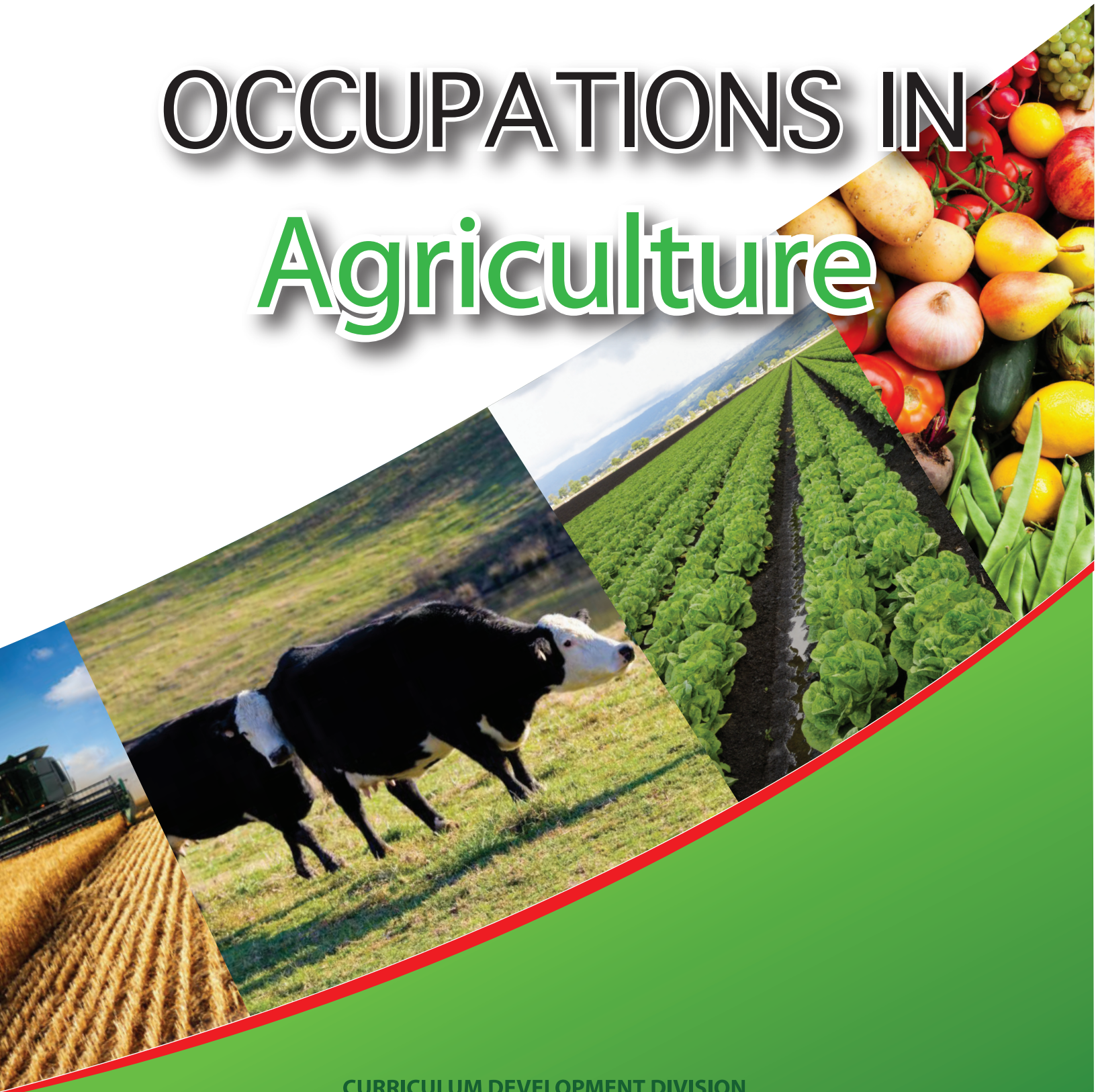




The Government of the Republic of Trinidad and Tobago

MINISTRY OF EDUCATION

OCCUPATIONS IN Agriculture



CURRICULUM DEVELOPMENT DIVISION
OCCUPATIONAL RESEARCH UNIT

2016

**MINISTRY OF EDUCATION
CURRICULUM DEVELOPMENT DIVISION
OCCUPATIONAL RESEARCH UNIT**

**OCCUPATIONS
IN
AGRICULTURE**

**DICTIONARY OF OCCUPATIONS FOR TRINIDAD AND TOBAGO
(DOTT)
2016**

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PREFACE

Preface to Agriculture Handbook

The Government of the Republic of Trinidad and Tobago has identified the Agriculture Sector as one of the drivers to achieving a thriving economy and ensuring the Republic achieves “food secured nation status”. With this mandate, increased focus is placed on the revitalization of an important sector of the economy that has been in decline for some time now.

While concerted effort has been made to revive the sector, chronic labor shortages, technology gaps and a lack of innovativeness have all impacted negatively on the growth and development of the industry. Indeed, the perception has been that agriculture has not attracted the best minds to work in production, research and other agriculture support positions.

The Republic of Trinidad and Tobago is a net importer of food, with food prices contributing significantly to increase in inflation, thus ensuring that the needs for food security remains of paramount concern as the nation drives for recognition as a developed nation. In light of the fact that the sector employs less than five percent(5%) (2015) of the working population and contributes 0.5 Gross Domestic Product(2015), the need to stimulate activities in the sector is of critical importance as evidenced by government’s increased investment in the sector especially over the last decade.

Given the increased focus on the sector by the Government of the Republic of Trinidad and Tobago and the wide window of opportunities for jobs that are available to both employers and employees, this handbook attempts to make information available that the user would find quite useful and timely.

Readers must recognize that this publication is not an exhaustive compilation of jobs in the agriculture sector as they exist in Trinidad and Tobago but a sample in the context of the time that the research was done. Users must also take note that research continues and additional titles will be included in future publications.

ACKNOWLEDGEMENTS

The publication ‘Occupations in Agriculture’ was produced by the Occupational Research Unit of the Ministry of Education as part of its mandate to update the Dictionary of Occupations for Trinidad and Tobago (DOTT).

The cooperation of the many establishments and individuals who facilitated the job analysis and verification exercise or offered helpful suggestions is appreciated. Special thanks are due to the Ministry of Food Production, Land and Marine Affairs, Cocoa and Coffee Industry Board, Caribbean Agricultural Research Development Institute (CARDI) and Caribbean Fisheries Training and Development Institute (CFTDI).

The assistance of the Ministry of Education’s Corporate Communications Division and the School Publications Unit are acknowledged.

UPDATING OF THE DOTT

Occupational changes take place quite frequently in response to technological developments, organizational restructuring, new industrial agreements or other factors.

The Occupational Research Unit in the Ministry of Education would welcome information on the development of new occupations or changes in occupations to facilitate periodic updating of the Dictionary of Occupations for Trinidad and Tobago (DOTT).

We also welcome your comments/questions on format and content.

Information or queries may be directed to:

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INTRODUCTION

This current compilation forms part of the Dictionary of Occupations for Trinidad and Tobago (DOTT) which was first published in 1992 and which consists of an occupational classification and coding system and descriptions for occupations found in Trinidad and Tobago.

Preparation of the current publication consisted of updating occupations previously published in DOTT 1992 and adding new occupations which came into existence subsequently or which were not previously analysed.

Research was conducted with the assistance of personnel from establishments in the public and private sectors and professional bodies. It consisted of on-site job analysis involving direct observation of workers, interviews with workers, their supervisors and senior managers, and consultation with experts.

The term “occupation” is applied to a group of jobs having common or closely related responsibilities and duties, occurring in representative establishments all over the country. As such, the occupational descriptions in the DOTT present average pictures of what takes place in Trinidad and Tobago and do not correspond precisely with any one establishment, unless that establishment is unique.

Occupational descriptions in the DOTT describe the type of work performed, not the person doing the work. A deliberate attempt is made to eliminate the use of gender biased terminology, although at times it is not possible to eliminate it altogether.

STRUCTURE OF THE CLASSIFICATION

The occupational classification is modeled on the International Standard Classification of Occupations (ISCO-08) which places occupations into groups based on the criteria of work performed and skill or ability necessary to carry out the relevant duties, ranging in a progression from the broadest to the most detailed level of aggregation. However, the ISCO has been adapted to reflect the occupational structure of Trinidad and Tobago.

Occupations are classified into MAJOR, SUB-MAJOR, MINOR and UNIT groups based on similarity of work performed.

Major Groups are the broadest grouping of occupations. Apart from Major Group 0, the groups are based on the skill levels of workers and on very general areas of economic activity and are a convenient means of grouping all occupations falling within these wide fields of work. The Major Groups are as follows:-

- Major Group 1 Managers
- Major Group 2 Professionals

- Major Group 3 Technicians and Associate Professionals
- Major Group 4 Clerical Support Workers
- Major Group 5 Service and Sales Workers
- Major Group 6 Skilled Agricultural, Forestry and Fishery Workers
- Major Group 7 Craft and Related Trades Workers
- Major Group 8 Plant and Machine Operators and Assemblers
- Major Group 9 Elementary Occupations
- Major Group 0 Defence Force.

Sub-major Groups are divisions of the respective Major Groups. These are based on skill specialization relating to the field of knowledge required, the tools and machinery used, materials worked on or with, and the kinds of goods and services produced.

Minor Groups are a breakdown of Sub-Major Groups and also a collection of Unit Groups. The groupings at this level are still fairly general.

Unit Groups are the most specific grouping of occupations. They are basic groups of occupations in which the main tasks have many similar characteristics. Unit Groups thus have occupational homogeneity and there is a closer relationship between occupations in the same Unit Group in terms of work performed than between occupations from different Unit Groups.

This structure is useful for understanding the Occupational Code Number (see below) however no references are made to the groups in the handbook. Only the Unit Groups are reflected in the Numerical Index.

This structure is useful for understanding the Occupational Code Number (see below) however no references are made to the groups in the handbook. Only the Unit Groups are reflected in the Numerical Index.

Glossary

Technical terms and words not ordinarily found in a standard English dictionary, or connoting meanings different from those ordinarily understood. They have been printed in italics when they first occur in the descriptions and are explained in the glossary at the back of the handbook.

COMPONENTS OF AN OCCUPATIONAL DESCRIPTION

Each occupational description has the following seven basic components:-

- i. Occupational Code Number;
- ii. Base Title, sometimes followed by Alternate Title(s);
- iii. Occupational Definition;
- iv. Statement of Duties;
- v. Related Job Titles, if any,
- vi. Required Education/Training and Experience
- vii. Occupational Profile

Occupational Code Number

Six-digit code numbers are provided for all unique occupations in the DOT. The first digit denotes the Major Group, the first two digits denote the Sub-Major Group, the first three digits denote the Minor Group, and the first four digits denote the Unit Group. The entire six-digit code number, including the two digits right of the decimal point, indicates the occupational category.

Occupational Titles

Base Titles appear immediately after the six digit code number and are printed in upper-case bold-face letters. These are the titles by which occupations are widely known and understood in the majority of establishments in Trinidad and Tobago.

Alternate Titles are the synonyms for Base Titles. They are the less frequently used titles by which such occupations are known. An occupation may have one or more alternate titles. They are printed immediately after the Base Title, after a 'stroke' (/), in upper/lower case, bold-face type.

Related Titles are variations of the Base Titles, but are not sufficiently different from them to justify classification as separate six-digit occupations. These titles are printed in upper/lower case letters at the end of descriptions and are arranged in alphabetical order. The list of Related Titles is illustrative, not exhaustive.

Index Titles do not appear in descriptions but are listed only in the Alphabetical Index. These may be used if the list of Related Titles to an occupation is too lengthy. They carry the Occupational Code Number of the occupation in question.

Occupational Definition

The summary statement following the Base Title and/or Alternate Titles is the definition of an occupation, succinctly describing the nature and purpose of an occupation.

Statement of Duties

The statement of duties is presented in a bulleted format. It elaborates on the definition and provides information on the 'what', 'why' and 'how' of the occupation.

'May' items appear after the statement of duties. These duties are performed by some workers, in some establishments, but are not necessarily performed by all workers.

Required Education/ Training and Experience

These statements spell out the recruitment requirements of an occupation.

Occupational Profile

Occupational information contained in these profiles provides essential information for use in educational and vocational guidance, job development and placement, development of apprenticeship and training programmes and other purposes.

Master Title Description

This description pertains to activities which are common to occupations sharing the same or similar characteristics across unit groups e.g. **CROP FARMER**. Master titles do not refer to single occupations and as such are not assigned code numbers or occupational profiles. The ‘**CROP FARMER**’ Master description is located preceding the occupational descriptions of Major Group 6.

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OCCUPATIONAL DESCRIPTIONS

1112.10 SENIOR GOVERNMENT OFFICIAL

Plans, directs and coordinates administrative and technical activities of section or division within government agency and/or assists departmental head with coordination of activities:

- Formulates, approves or submits for approval policies and programmes geared towards achievement of specific divisional aims
- Consults and advises superior on policies, programmes, administrative and other matters to ensure conformity with national and departmental priorities
- Collaborates with financial personnel to prepare sectional or divisional budget and draft estimates of expenditure
- Issues guidelines and establishes implementation procedures for section controlled
- Assigns duties to and coordinates activities through subordinate supervisory personnel to ensure programme implementation
- Makes field visits where applicable, meets with subordinates, reviews reports to monitor progress of projects and provides technical advice
- Liaises with relevant personnel in other government ministries or departments and regional and international organisations
- Represents organisation on committees and at national and international conferences
- Participates in staff recruitment interviews
- Trains subordinate staff attached to section and/or advises training personnel on institutional and in-service training programmes
- Prepares research papers, administrative reports and performance appraisals of staff directly supervised.

May direct and control administrative and/or technical activities of entire agency, authorise disbursement of approved funds and recommend award of contracts within specified budgetary limits.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

University first degree, post-graduate training in a relevant area and considerable experience in public sector administration.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; supervising other workers; handling;
Education and Training	
Development:	Post-graduate University degree or diploma;
Special Vocational Preparation:	Over 10 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; performing under stress; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group;

Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/ tabular material;
Interests:	Leading and influencing others;
Physical Demands:	Light work; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting;
Environmental Conditions:	Inside, daytime, nights, working around people.

1112. 49 DIRECTOR, FOOD PRODUCTION

Plans, directs and coordinates activities of agricultural division:

- Performs duties of **SENIOR GOVERNMENT OFFICIAL**
- Coordinates research, planning and development activities in assigned agricultural area
- Advises government agencies on operating policies, ensuring that priorities are met in areas of crop and livestock research, animal health, extension services, fisheries, forestry, agricultural engineering and other designated areas
- Approves implementation of projects such as reforestation, soil and water conservation, irrigation and drainage works
- Visits agricultural field projects, monitors progress and provides technical advice to ensure that targets are met and discusses reasons for constraints
- Represents government on various committees dealing with agricultural matters.

RELATED TITLES:

Director, Animal Production and Health
Director, Fisheries
Director, Research Division

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in agricultural related field and four to eight years' experience in the field of agriculture.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; handling;
Education and Training Development:	University first degree;
Special Vocational Preparation:	Over 5 years, up to and including 10 years;
Temperaments:	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualize objects in three dimensions from drawings/representation; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;

Interests:	Plants and animals; leading-influencing;
Physical Demands:	Light work; writing; talking-ordinary, other types; hearing ordinary conversation; vision-ordinary; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people.

1112. 68 CONSERVATOR OF FORESTS

Develops and executes programmes geared towards development and preservation of forests and forest resources:

- Plans and coordinates *silvicultural* programme and trains field staff in silvicultural techniques
- Coordinates construction and maintenance of forest roads, bridges and buildings
- Directs, approves and coordinates the research, surveying and forest utilization programmes of the forestry division
- Administers legislated forestry and wildlife Acts and forest concessions
- Co-ordinates preparation of budget and draft estimates of expenditure and supervises disbursement of funds
- Makes periodic inspection of district offices, forest nurseries, forest plantations and forest reserves
- Develops and ensures maintenance of forest-based recreational facilities
- Liaises with relevant personnel in local, regional and international organizations and represents government on advisory committees and at national and international conferences
- Develops, directs and monitors educational and information systems embracing forestry, wildlife and related fields
- Reviews and/or prepares periodic administrative reports on Division's activities, staffing and training requirements and annual and technical reports on forestry and wildlife
- Directs sales of forest products from government lands.

RELATED TITLES

Assistant Conservator of Forests

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in forestry related area and at least eight years' experience in tropical forestry.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; handling;
Education and Training Development:	University first degree;
Special Vocational Preparation:	Over 5 years, up to and including 10 years;
Temperaments:	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group;

Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualize objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details in verbal/tabular material;
Interests:	Plants and animals; leading-influencing;
Physical Demands:	Light work; writing; talking-ordinary, other types; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people.

1311.11 FARM MANAGER

Manages farm operations on behalf of owner to ensure optimum productivity and profitability of enterprise:

- Confers with owner and subordinate supervisory personnel to plan sequence of farming activities and discuss budgetary issues
- Prepares operating budget and work plan indicating labour, equipment and supply requirements
- Requisitions purchases of supplies and equipment and ensures correct disbursement and use
- Issues instructions and discusses farm activities with subordinates
- Visits *holdings* periodically to monitor farm operations and condition of plant and equipment
- Liaises with suppliers and government agencies to obtain technical assistance
- Arranges for marketing of produce
- Responds to emergencies on farm and coordinates activities to resolve problems
- Compiles and analyses production and financial records to determine cost efficiency of operation.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Diploma in Agriculture with five years' experience in an agricultural setting.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; handling;
Education and Training Development:	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution;
Special Vocational Preparation:	Over 5 years, up to and including 10 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group;
Aptitudes:	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;
Interests:	Plants and animals; business detail;

Physical Demands:	Light work; use of hands, writing; talking-ordinary; hearing-ordinary conversation; acuity beyond 6 metres, vision-ordinary, colour vision; walking, standing, sitting;
Environmental Conditions:	Inside and outside, daytime, nights, working around people; slippery surfaces; dust, dirt, glare.

1311.12 COCOA AND COFFEE EXPORTER

Operates establishment to purchase, process and export cocoa and coffee:

- Plans, organises and coordinates work of produce warehouse
- Negotiates purchase of cocoa and coffee beans and berries from Cocoa and Coffee Growers and Cocoa and Coffee growers buying agent
- Directs or supervises workers engaged in loading, storing, processing and preparation of product for marketing
- Arranges for *hulling* of coffee and delivery to local manufacturers
- Makes and receives payments and maintains records
- Communicates with government departments and overseas agents regarding export of produce
- Liaises with personnel of regulatory body on matters relating to grading, preparation and storage of beans, hygiene and security of premises and local sales and export quotas
- Submits returns summarising total purchase, sale and export of produce to regulatory body.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Secondary level education and three to five years' experience in the Cocoa and Coffee Industry. A license from the Cocoa and Coffee Industry Board is required.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; exchanging information to arrive at terms of agreement; handling;
Education and Training Development:	Forms 4 & 5, CSEC/GCE O-Level;
Special Vocational Preparation:	Over 3 years, up to and including 5 years;
Temperaments:	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;
Interests:	Business detail;
Physical Demands:	Light work; stooping; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime; noise; odours, dust.

1311.13 HATCHERY MANAGER

Coordinates and supervises activities of poultry hatchery:

- Requisitions equipment and supplies such as incubators, eggs and medication
- Supervises activities such as traying and transfer of eggs, vaccinating and debeaking of chicks and maintenance of sanitary conditions
- *Candles* eggs before incubation to identify defective ones and estimate hatching rate
- Breaks and examines unhatched eggs to identify infertility or incubating problems
- Monitors incubators to maintain temperature, humidity and ventilation standards and ensure required turning of eggs
- Monitors functioning of other hatchery equipment and arranges for major equipment repair
- Compiles or checks records of eggs received, hatched and delivered
- Completes hatch analysis report for use by egg suppliers
- Liaises with **Poultry Serviceman** or **Poultry Farmer** to ascertain progress of delivered flocks and identify problems due to malfunctions of hatchery
- Analyses records to improve efficiency and cost effectiveness of hatchery operations.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Five CSEC/GCE O-Level subjects with at least four years' experience in a hatchery environment.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; manipulating;
Education and Training Development:	Forms 4 & 5, CSEC/GCE O-Level;
Special Vocational Preparation:	Over 3 years, up to and including 5 years;
Temperaments:	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;
Aptitudes:	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;
Interests:	Business detail;
Physical Demands:	Light work; stooping, crouching, raising of arms; use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary; standing, walking, sitting;
Environmental Conditions:	Inside, daytime, nights, shifts/on call; wet; mechanical hazards, electrical hazards.

1311.21 PROJECT MANAGER, LANDSCAPING \ **Landscaping Contractor**

Plans and coordinates landscaping projects by performing any combination of the following duties:

- Prepares and submits tenders or estimates to relevant authority such as government agency, **Building Contractor** or private owner, in response to referrals or advertisements
- Reads plans and visits client's premises to determine physical layout of land in relation to structures
- Liaises with **Landscape Architect** and prepares detailed drawings of garden layout

- Performs routine soil tests and selects appropriate fertilisers
- Supplies plants and other garden materials to create desired effect for client
- Trains **Groundsmen** in use and care of work tools and equipment
- Supervises and assists workers in laying out, grading, planting and preserving of grounds until garden is fully established
- Collaborates with **Building Contractor** throughout project to ensure integration of landscaping work with overall construction exercise

May provide follow-up maintenance services for client's garden or lawn.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Agriculture and at least three years' working experience in the field of Landscaping.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; exchanging information to arrive at terms of agreement; manipulating;
Education and Training	
Development:	University first degree;
Special Vocational	
Preparation:	Over 5 years, up to and including 10 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to perceive subtle colour distinctions;
Interests:	Artistic/creative expression of feelings or ideas; plants and animals; business detail;
Physical Demands:	Light to medium work; use of hands, writing; talking-ordinary; hearing - ordinary conversation; vision-ordinary, beyond 6 metres, within 0.5 metres, field of vision, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces, radiant energy; odours, dust, dirt, toxic conditions, glare.

1311.22 HORTICULTURAL MANAGER

Plans and directs cultivation of trees, vegetables and ornamental plants for wholesale and retail purposes:

- Plans work programme with subordinate staff
- Maintains stock area of mother plants to obtain cuttings for new plants
- Supervises subordinate staff in propagation tasks, such as preparation of rooted cuttings, formulation and mixing of soil preparations, application of fertilisers, planting of products in commercial

- containers and caring for plants in greenhouses
- Implements disease and insect pest spraying programmes
- Keeps abreast of information relating to use of chemicals and fertilisers and new trends in plant production and maintenance
- Supervises preparation of plants for sale to wholesalers, retailers and general public
- Supervises repair and maintenance of machinery and equipment
- Maintains production and financial records

May supervise garden landscaping and maintenance activities.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Agriculture or Horticulture and three years' experience in the field of horticulture at a professional level.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; handling;
Education and Training Development:	University first degree;
Special Vocational Preparation:	Over 5 years, up to and including 10 years;
Temperaments:	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to perceive subtle colour distinctions;
Interests:	Plants and animals; business details;
Physical Demands:	Light work, lifting, carrying, pushing, pulling; stooping, crouching; use of hands and fingers, feeling, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces, risk of occupational disease, noxious substances; fumes, dust, dirt, toxic conditions, glare.

2113.15 BIOCHEMIST

Researches chemical processes in living organisms:

- Coordinates and guides research projects
- Conducts experiments and analyses results to aid in study of vital processes in living organisms and action of drugs, food, chemicals and other substances on them
- Investigates the chemical structure and functions of living cells, organs and tissues of humans, animals, plants or micro-organisms
- Investigates biochemical processes involved in production of substances
- Performs chemical analyses on bodily substances and fluids to detect abnormalities and assist in clinical diagnoses

- Develops new and improved methods for the preparation of enzymes, serums, vaccines, hormones and other products derived from animals, plants, tissue cultures or micro-organisms
- Applies research findings to projects such as improvement of plant species, optimisation of food and beverage storage and processing techniques and elimination of water pollution
- Supervises and coordinates the work of technologists and technicians.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Biochemistry with three to five years' experience in the field of biochemistry.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; precision working;
Education and Training	
Development:	University first degree;
Special Vocational Preparation:	Over 5 years, up to and including 10 years;
Temperaments:	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and or/ fingers; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully; ability to perceive subtle colour distinctions;
Interests:	Scientific and technical work;
Physical Demands:	Light work; carrying, pulling, stooping, crouching; raising of arms, reaching, use of hands and fingers; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, depth perception, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside, daytime, working around people; wet, risk of occupational diseases; noxious substances; fumes, dirt.

2113.19 FOOD TECHNOLOGIST

Conducts research and develops method and procedures for manufacture and processing of foods and beverages:

- Determines inputs required from professional and technical personnel for project research
- Identifies appropriate testing equipment and instruments and set up and/or monitors setting up of apparatus
- Undertakes research and investigations and assigns work to laboratory personnel
- Performs experiments and analyses to develop methods of commercial processing of food and beverages
- Liaises with clients and visits establishments to monitor operations and advise on various aspects of production such as food and beverage handling, marketing, cost control and plant design

- Develops quality control programmes
- Collaborates with professional colleagues and other relevant personnel in food-production field to achieve project goals
- Prepares research and related papers for publication as required.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Chemistry or Food Technology. Three to five years' experience in food safety programmes in an industrial environment.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; setting-up;
Education and Training	
Development:	University first degree;
Special Vocational Preparation:	Over 5 years up to and including 10 years;
Temperaments:	Direction, control and planning of an activity or project: dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; team work;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material; ability to perceive subtle colour distinctions;
Interests:	Scientific and technical work; leading and influencing others;
Physical Demands:	Sedentary to light work; reaching, use of hands and fingers, feelings, writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, acuity within 0.5 meters, colour vision; standing, walking, sitting; smelling, tasting;
Environmental Conditions:	Inside and outside, daytime, working around people; heat; cold; wet; noise; mechanical hazards; odours.

2120.33 BIOMETRICIAN

Develops methodologies and applies statistical techniques to facilitate analysis of medical and agricultural research data:

- Performs duties of **STATISTICIAN**
- Advises researchers on the correct and appropriate statistical design of experiments, surveys and monitoring studies in order to ensure that adequate and relevant data are collected for future analysis and evaluation
- Plans and designs research projects, experiments and surveys to ensure that all variables under investigation can be examined fully
- Discusses research projects and clients' requests with technical staff to determine techniques to be applied in analysis of data
- Accompanies clients on field trips to monitor collection of information
- Provides advisory services and assistance in data processing and computing
- Prepares statistical papers for research scientists

- Conducts training and refresher courses for peers and subordinates in basic statistics and data processing and their applications
- Supervises the work of **Statistical Assistants and Clerks.**

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Mathematics or Biological science with post-graduate qualification in a specialization such as Biometry or Applied Statistics and over six years' experience in biometrics.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; handling;
Education and Training Development:	Post-graduate university degree/diploma;
Special Vocational Preparation:	Over 10 years;
Temperaments:	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;
Interests:	Leading-Influencing
Physical Demands:	Sedentary work; use of hands, writing; talking-ordinary, other types; hearing-ordinary conversation; vision-ordinary, acuity beyond 6 metres; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people.

2131.11 MICROBIOLOGIST

Applies knowledge of nature and characteristics of micro-organisms to develop nutritional, medical and other practical applications:

- Identifies and characterises micro-organisms by using appropriate laboratory techniques, in fields such as *serology*, biochemistry and bacteriology to determine physiological, *morphological*, immunological and cultural characteristics
- Studies role of micro-organisms in production of foods and beverages and the treatment of waste
- Develops quality-control and quality-assurance programmes for food, drug and chemical manufacturing operations as well as environmental monitoring procedures for processing operations
- Supervises or conducts laboratory tests on water, food, beverages, soil, air, chemicals, drugs and other substances and prepares reports on findings
- Applies the above methods to control the growth of micro-organisms in processing industries, food storage and retail outlets, and medical settings
- Conducts epidemiological investigations of diseases, studying causes, developments and changes
- Coordinates laboratory services in diagnostic microbiology
- Determines degree of microbiological hazard inherent in procedures being used and outlines

- appropriate safety measures for protection of staff
- Ensures adherence to safety guidelines and reviews them periodically
- Keeps abreast of technological developments in field
- Submits research findings for publication in scientific literature
- Supervises subordinate and trainee professional and technical personnel and trains in new techniques and methods

May supervise research in specialised areas, oversee care of animal colonies maintained for experiments, prepare proposals for research funding and monitor the microbiological indicator organisms of public health significance.

RELATED TITLES

Clinical Microbiologist

Industrial Microbiologist

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Microbiology and experience in the field of Microbiology or any equivalent combination of experience and training.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; precision working;
Education and Training	
Development:	University first degree;
Special Vocational Preparation:	Over 3 years, up to and including 5 years;
Temperaments:	Direction, control and planning of an activity or project; influencing people; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully; ability to perceive subtle colour distinctions;
Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Sedentary to light work; stooping; reaching, use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, depth perception, ability to adjust focusing, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside, daytime, working around people; wet; risk of occupational diseases; noxious substances.

2131.12 WILDLIFE BIOLOGIST

Studies and evaluates wildlife resources and habitat and plans management strategy for protection and preservation of wildlife:

- Identifies areas for wildlife research and designs, coordinates and monitors research projects aimed at determining distribution, abundance, behaviour and other biological characteristics of wildlife forms
- Observes wildlife in its natural environment to determine physical characteristics, eating, mating and nesting patterns, population levels, migratory trends and other characteristics
- Collates, analyses and evaluates data obtained, employing statistical techniques as necessary
- Identifies and classifies specimens and collections
- Prepares research reports, papers and publications for educational purposes
- Prepares wildlife status reports for submission to superior
- Plans and supervises activities of subordinate staff
- Serves as an authority on wildlife and wetland conservation.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Biology/Zoology or related field, Master's degree in Wildlife Management or in a related field such as Ecology or Biology.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; precision working;
Education and Training Development:	Post-graduate university degree/diploma;
Special Vocational Preparation:	Over 5 years, up to and including 10 years;
Temperaments:	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualize objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to perceive subtle colour distinctions;
Interests:	Scientific and technical work; plants and animals; leading-influencing;
Physical Demands:	Sedentary/light work, lifting, carrying, pushing, pulling; climbing, balancing; stooping, kneeling, crouching, crawling; reaching, use of hands and fingers, feeling, writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, acuity beyond 6 metres, acuity within 0.5 metres, field of vision, ability to adjust focusing, colour vision, night vision; standing, walking, sitting; good bodily coordination, smelling;
Environmental Conditions:	Inside and outside, daytime, nights, working alone, working around people; wet, humidity; slippery surfaces, risk of bodily injury/loss, risk of disability conditions, risk of occupational diseases; fumes, odours, dust, dirt, glare.

2131.13 AQUATIC BIOLOGIST

Conducts research into aquatic life-forms to determine impact of their environment:

- Conducts field research, diving if necessary, to determine effect of environmental factors such as temperature, salinity, acidity and light reduction on aquatic plants and animals
- Collects biological and other specimens with assistance of subordinates for laboratory analysis
- Conducts analyses employing techniques such as microscopy and photography
- Identifies and preserves specimens and prepares collections for reference purposes
- Collates and analyses data and prepares and presents reports and scientific papers
- Plans, supervises and co-ordinates field and laboratory work of subordinates.

RELATED TITLES

Aquaculturist

Marine Biologist

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Marine Biology, Zoology or Biology with a specialization in Aquatic Science and experience in the field of fisheries or Aquatic Biology.

OCCUPATIONAL PROFILE

Data/People/Things:

Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; precision working;

Education and Training

Development:

University first degree;

Special Vocational

Preparation:

Over 3 years, up to and including 5 years;

Temperaments:

Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;

Aptitudes:

Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/ representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully; ability to perceive subtle colour distinctions;

Interests:

Scientific and technical work; plants and animals;

Physical Demands:

Light to medium work, lifting, carrying; stooping, kneeling; use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity beyond 6 metres, acuity within 0.5 metres, depth perception, ability to adjust focusing, colour vision; standing, walking, sitting, swimming;

Environmental Conditions:

Inside and outside, underwater, daytime, nights, working around people; wet; slippery surfaces; fumes, odours, dirt, glare.

2131.22 TISSUE CULTURE SPECIALIST

Develops and implements plant propagation projects using tissue culture technology:

- Participates in project planning and budgeting activities to identify and define projects in the area of plant production and crop improvement and *germplasm accessions* which require biotechnology procedures
- Designs laboratory facilities for tissue culture activities
- Designs and adapts crop propagation systems to develop and cultivate horticultural and food crop plants
- Screens and indexes pathogen/contaminants in plant tissue culture
- Undertakes analyses of data and interprets results to make recommendations
- Diagnoses tissue culture problems to recommend control and management techniques
- Develops methods for in vitro germplasm maintenance and storage
- Trains staff in the procedures involved in germplasm collection and preparation and basic laboratory techniques and supervises the work of technical and research staff
- Prepares reports and technical papers and disseminate findings and conclusions of procedures, research and projects
- Advises and works along with government officials, farmers, farmers' organizations and other stakeholders to determine and solve problems of the agricultural community
- Ensures that activities and technologies carried out take social and gender considerations into account and do not promote environmental degradation.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

MSc. in Plant Science or Crop Production, specializing in Tissue Culture and Bio-technology. Over six years' experience in the area of plant propagation using tissue culture methods and techniques.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; setting-up;
Education and Training Development:	Post graduate university degree;
Special Vocational Preparation:	Over ten years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; influencing people; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Sedentary work; use of hands, writing; talking-ordinary; hearing – ordinary conversation; vision-ordinary, acuity within 0.5 metres; standing, walking, sitting;

Environmental Conditions: Inside and outside, daytime, working around people; heat; noise; radiant energy; fumes, odours, dust, toxic conditions.

2131.23 PLANT PATHOLOGIST

Plans and conducts research and makes recommendations for control of plant diseases:

- Participates in planning and budgeting of research projects
- Visits farms on requests of farmers or members of agricultural community to investigate plant disease problems and collect samples
- Designs appropriate experiments to conduct the necessary scientific enquiry and to collect, collate and analyse the resultant data
- Examines specimens of soil, crop and plant tissue and diagnoses problems
- Supervises and trains laboratory personnel on tests to be performed and techniques to be employed
- Examines and compares laboratory data with field information, identifying location of soil samples, type of crops examined and time sample was taken
- Estimates extent of crop loss due to diseases and other relevant factors to determine optimum methods of controlling pathogens and provides feasible and economic methods to improve crop production and alleviate damage
- Supervises preparation of trial crop sites to test suitability of pesticides in treatment of various plant diseases
- Develops and introduces disease-control measures to be pursued by **Crop Farmers**
- Screens plant material, potting mixture and other substances for pathogens and plant parasitic nematodes and advises technical personnel on action to be taken
- Prepares reports on research projects for publication in international journals or for presentation at scientific conferences
- Disseminates information to agricultural community and other user agencies through lectures, bulletins, workshops, and seminars
- Assists in training personnel attached to relevant government departments
- Performs assigned administrative duties.

RELATED TITLES

Plant Virologist

Plant Nematologist

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post graduate university degree in Crop/Plant Pathology and at least a minimum of six years' post-university experience in plant pathology. Experience in project planning, implementation and management is required.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; precision working;
Education and Training Development:	Post-graduate university degree/diploma;
Special Vocational Preparation:	Over 10 years;

Temperaments:	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Light work; climbing; stooping, crouching; use of hands and fingers, feeling, writing; talking-ordinary, other types; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, ability to adjust focusing, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces, risk of occupational diseases, noxious substances; fumes, odours, dust, dirt, toxic conditions, gases, glare.

2131.32 ENTOMOLOGIST

Conducts research on insects and mites to develop management, control and eradication strategies and supervises the extension learning programmes in crop production:

- Surveys farming community to assess problems with insect pests and mites
- Designs and develops research projects to minimize impact of pests and increase crop yield
- Investigates biological and chemical control of crops under cultivation, making reference to pest management techniques and use of chemicals
- Investigates and analyses insect distribution and habitat and recommends methods to prevent importation, propagation and spread of harmful types and promote spread of beneficial ones
- Investigates factors affecting pollination of plants
- Improves bee strains to promote production of honey, jelly and other by-products
- Prepares educational materials including articles for technical journal and disseminates information directly to agricultural producers or through extension staff
- Advises and trains personnel involved in entomological projects at government agencies, research centres, apiaries, nurseries and other establishments
- Ensures that activities carried out and pest control methods developed and tested do not promote environmental degradation
- Performs administrative and supervisory duties relevant to operation of assigned department.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Master's degree in biological sciences with specialization in Entomology/Plant Health/Crop Protection. A minimum of six years' post-university experience in pest management and control.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; setting-up;
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Education and Training**Development:**

Post-graduate university degree/diploma;

Special Vocational**Preparation:**

Over 10 years;

Temperaments:

Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group;

Aptitudes:

Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualize objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and /or fingers; ability to perceive subtle colour distinctions;

Interests:

Scientific and technical work; plants and animals;

Physical Demands:

Light work; stooping, crouching, raising of arms; reaching, use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, acuity within 0.5 metres, ability to adjust focusing, colour vision; standing, walking, sitting;

Environmental Conditions:

Inside and outside, daytime, working around people; risk of bodily injury/loss, risk of occupational diseases, noxious substances; dust, dirt;

2132.11 SOIL SCIENTIST

Conducts research on soil and plant material to assess fertility status and makes recommendations to improve crops and increase yield:

- Participates in project planning and budgeting activities
- Plans and develops practices for soil erosion control, moisture conservation and general environmental conservation
- Designs scientific experiments to collect data for analysis and decision support
- Carries out soil and land capability surveys to ensure that relevant maps are prepared
- Obtains soil and leaf samples from farms and analyses samples to determine suitability of soil for intended crop and presence of plants nutrients and other factors which may affect crop production
- Advises on proper land use, corrective measures to be taken to improve crop yield and soil management techniques to improve fertility
- Advises relevant government department on condition of soil in specified areas, on request
- Ensures that activities carried out and technologies designed, tested and adapted do not promote environmental degradation
- Supervises technical staff, laboratory personnel and unskilled workers
- Keeps abreast of advances made in the field of soil science by attending conferences and reading related technical publications
- Documents and disseminates research findings and information in reports, bulletins and publications and lectures to members of the agricultural community.

RELATED TITLES

Soil Chemist

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

MSc. in Soil Science and at least three years' post graduate experience.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; precision working;
Education and Training Development:	Post-graduate university degree/diploma;
Special Vocational Preparation:	Over 5 years, up to and including 10 years;
Temperaments:	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move fingers and manipulate small objects rapidly/accurately;
Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Light work; stooping, crouching; use of hands and fingers, writing; talking-ordinary, other types; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, ability to adjust focusing, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; risk of occupational diseases, noxious substances, radiant energy; fumes, odours, glare.

2132.12 AGRONOMIST

Conducts research on food crops and develops new methods of growing crops to obtain more efficient production, higher yield and improved quality:

- Participates in project planning and budgeting activities and designs crop research experiments
- Carries out research projects on private farms, pastures, experimental stations, or research institutions
- Determines effective methods of cultivation, pest and disease control, harvesting of suitable varieties of crops under different environmental conditions, post harvest handling and processing as well as crop rotation and irrigation practices
- Evaluates data, using statistical analysis techniques and use the principles of biology, chemistry and other sciences to solve problems in agriculture and interprets results of evaluation and presents

- findings at seminars and lecture sessions
- Prepares advisory and educational bulletins for dissemination to agricultural community
- Supervises plant quarantine services at ports of entry, if attached to government agency
- Supervises work of technical staff and performs assigned administrative duties
- Ensures that activities carried out and technologies designed, tested and adapted do not promote environmental degradation.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Master's degree in Agronomy/Crop Production and six years' post university experience in the field of Agronomy. Specialised knowledge of biological research and biotechnology. Formal training in experimental design and statistical analysis would be an asset.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; precision working;
Education and Training	
Development:	Post-graduate university degree/diploma;
Special Vocational Preparation:	Over 10 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material;
Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Light work; stooping, kneeling, crouching; reaching, use of hands and fingers, writing; talking-ordinary, other types; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, colour vision, ability to adjust focusing; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; slippery surfaces, noxious substances; fumes, odours, dust, dirt, toxic conditions, gases, glare.

2132.13 ANIMAL SCIENTIST/Livestock Officer

Conducts research into animal breeding, nutrition and physiology, and develops management systems to ensure economic production of animals and animal products:

- Participates in research, marketing, project planning, resource mobilization and budgeting activities
- Evaluates different breeds of animals, in terms of meat, milk and egg production, to determine suitability for rearing under specified conditions
- Monitors effect of feeding on milk, meat and egg production
- Develops nutrition programmes to formulate diets for farm animals
- Identifies locally available ingredients to replace imported components in animal feeds

- Designs and conducts experiments to collect data on reproductive performance of animals and related factors and disseminates findings in the form of reports and technical papers
- Keeps abreast of advances in livestock and forage production technologies nationally and internationally and uses information to adjust policies and programmes
- Guides the development, monitoring and evaluation of relevant extension programmes
- Liaises with stakeholders to ascertain issues affecting livestock production and implements strategies to address same
- Coordinates animal production programmes and serves as resource person to other staff members and technical institutions
- Supervises technical and non-technical staff engaged in animal research and husbandry and performs assigned administrative duties.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Master's degree in Animal Health with specialization in areas such as animal production/nutrition/breeding/reproductive physiology. Six years' post university experience in the field of Animal Science.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; handling;
Education and Training	
Development:	Post-graduate university degree/diploma;
Special Vocational Preparation:	Over 10 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;
Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Light work; stooping, crouching; reaching, use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, field of vision, ability to adjust focusing, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; slippery surfaces, risk of occupational diseases; odours, dust, dirt, glare.

2132.14 POST HARVEST TECHNOLOGIST-SPECIALIST

Develops, adapts and transfers post-harvest technology to exporters, local marketers and farmers to improve the post-harvest quality and standards of agricultural produce:

- Identifies post harvest problems being experienced by farmers and exporters and develops solutions to alleviate such problems
- Plans and conducts research to test, adapt and validate post harvest practices
- Designs, develops and implements quality control systems to reduce the possibility of damage to farmers' agricultural produce and improve market delivery
- Develops testing and sampling methods to be utilized at various stages during production, harvesting, handling, packaging and export of fruits or crops
- Sources, reviews and disseminates post harvest information on priority crops and provides technical support to scientific and government departments/agencies
- Works as part of a multi-disciplinary team and conducts training sessions in post harvest handling of export produce
- Supervises the work of technical and research assistants
- Prepares reports on all major scientific activities.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Agriculture or its equivalent, MSc. in Post Harvest Technology and a minimum of six years' post-university experience in the area of Quality Control in Agricultural produce.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; precision working;
Education and Training Development:	Post-graduate university degree;
Special Vocational Preparation:	Over 10 years;
Temperaments:	Direction, control and planning of an activity or project; influencing people; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Light work; raising of arms; reaching, use of hands, writing; talking-ordinary; hearing –ordinary conversation; vision-ordinary, colour vision; standing, sitting, walking;
Environmental Conditions:	Inside and outside, daytime, working around people; wet.

2132.15 AGRICULTURAL OFFICER

Administers agricultural development programme in assigned county:

- Designs and participates in agricultural surveys in order to inform agricultural programmes
- Coordinates and executes programmes and controls disbursement of funds
- Monitors and evaluates programmes in pursuance of Government's policies
- Prepares estimates of revenue and expenditure for agricultural and related educational programmes in

assigned county

- Conducts on-station and on-farm research under guidance of specialist officer
- Identifies and investigates incidence of pests and diseases or their threat, implements corrective action and makes recommendations for their management
- Participates in interviews of applicants for state lands and recommends assistance based on suitability
- Represents ministry at district conferences and other meetings and provides technical advice
- Visits farms and regional projects, offers technical advice and liaises between farmers, government ministries, agricultural societies and other stakeholders
- Supervises and reviews work of technical and non-technical staff in assigned department and organises in-service training programmes
- Prepares or reviews periodic reports for submission to superior.

RELATED TITLES

Agricultural Officer I/II/III

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Agriculture and at least two years' experience in agriculture activities.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; handling;
Education and Training	
Development:	University first degree;
Special Vocational Preparation:	Over 3 years, up to and including 5 years;
Temperaments:	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/ group;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material;
Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Light work; stooping, raising of arms; use of hands and fingers; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, nights; working around people; wet; slippery surfaces, risk of bodily injury/loss; fumes, odours, dust, dirt, glare.

2132.16 AGRIBUSINESS DEVELOPMENT SPECIALIST

Organizes, conducts and coordinates technical assistance programme to advise farmers on appropriate technology and business advisory services to be able to increase productivity:

- Designs agriculture and rural development programs and projects
- Conducts market research, project planning, budgeting and development activities
- Designs, develops and implements technical assistance packages for agribusiness enterprises

- Mobilises resources to generate technology products and services demanded by entrepreneurs and promotes transfer
- Provides business advisory services
- Manages the identification and recruitment of short term consultants and multidisciplinary teams assigned to projects coordinated by the unit
- Supervises staff and performs administrative duties.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Agriculture, Management or equivalent, Msc. in Agricultural Economics or equivalent and at least ten years' post-graduate working experience in project planning, development and monitoring.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analysis of data to discover facts or develop concepts; directing work-related activities of a group of workers; handling;
Education and Training	
Development:	Post-graduate university degree/diploma;
Special Vocational Preparation:	Over 10 years;
Temperaments:	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; ability to work as part of a team/group;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;
Interests:	Plants and animals; business detail;
Physical Demands:	Sedentary work; use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people.

2132.17 PLANT BREEDER

Plans and carries out plant breeding research to develop and improve crop *cultivars* and quality of planting material for the enhancement of crop production:

- Participates in the institute's planning and budgeting process and helps to identify and define plant breeding inputs on projects.
- Carries out experiments to determine the environmental factors in the origin, transmission and genetic control of inherited traits of plants
- Analyses determinants responsible for specific inherited traits such as colour differences, size and disease resistance to improve or to understand relationship of heredity to maturity, fertility and other factors
- Devises methods for altering or producing new traits making use of chemicals, heat, light or other means
- Uses plant-breeding techniques to screen, evaluate, characterize and select materials to improve the production and marketing potential of important crop species

- Conducts and inspects field experiments that lead to crop improvement and *germplasm* maintenance
- Ensures that field chemicals are applied according to specifications and monitors temperature and humidity conditions
- Collaborates with other researchers and field technicians to ensure that established plant culture procedures are met
- Participates in the planning of workshops and seminars for farmers and farmers' organisations and provides technical assistance as necessary
- Disseminates findings of original research work through the preparation of papers for publication in agricultural science journals
- Maintains and updates propagation records and compiles monthly and quarterly reports.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Agriculture with a Post-graduate degree in Plant Breeding/Genetics/Agronomy, and a minimum of six years' post university experience in research management and application of Genetics and Plant Breeding methods.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; communicating with people to convey or exchange information; precision working;
Education and Training	
Development:	Post-graduate university degree/diploma;
Special Vocational Preparation:	Over 10 years;
Temperaments:	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully; ability to perceive subtle colour distinctions;
Interests:	Plants and animals; scientific and technical work;
Physical Demands:	Light work; use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, working around people; slippery surfaces, noxious substances; dust, dirt, glare.

2132.31 FISHERIES OFFICER

Organises and conducts activities related to management and development of fishing industry by performing any combination of the following duties:

- Develops and coordinates research activities relating to technical, commercial and biological aspects of fishing industry

- Plans and directs collection and compilation of data obtained from fishermen about tides, currents, fishing patterns, fishing areas, fish catches and gear used
- Develops, recommends and administers programmes for the conservation and development of economically important fresh water and marine fish resources
- Conducts feasibility studies, surveys and censuses on various aspects of the fishing industry, to advise on investment, marketing and locating of amenities
- Recommends sites for the cultivation of fish species and for fish centres and monitors and follows up to ensure proper expenditure of funds and development and maintenance of facilities
- Recommends payment of compensation and subsidies to fishermen
- Participates in simulated fishing trips to become familiar with fishing methods and techniques and obtains samples for laboratory analysis
- Develops and implements measures to regulate the import, export and exchange of fish and fish products as well as ornamental fish
- Initiates and participates in educational activities to improve fishing methods and techniques
- Liaises with and investigates problems affecting Fishermen and other members of fishing community and fosters the formation of fishing co-operatives and fishing associations
- Participates in conferences and seminars and keeps abreast of developments in field
- Coordinates production and dissemination of fisheries statistics and information and manages the Fisheries Division Library and Information Centre
- Plans, organises and coordinates activities of subordinates
- Performs administrative duties such as preparing budgets and reports and ordering supplies and equipment.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Fisheries Science/Fisheries Biology/Fisheries Management/Aquaculture or Natural Sciences and experience in the field of fisheries development.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; handling;
Education and Training	
Development:	University first degree;
Special Vocational Preparation:	Over 3 years, up to and including 5 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;
Interests:	Scientific and technical work, plants and animals, leading-influencing;

Physical Demands:	Light/medium work, lifting, carrying; stooping, crouching; use of hands and fingers, feeling, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, ability to adjust focusing, colour vision, night vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, nights, working around people; wet; risk of bodily injury/loss, noxious substances, mechanical hazards; odours, dirt, glare.

2132.32 FISH INSPECTION OFFICER

Coordinates the monitoring, surveillance and enforcement functions of the government fisheries unit to ensure compliance with laws and regulations:

- Assists in the preparation and implementation of fisheries projects
- Co-ordinates and supervises subordinate staff conducting inspections of fish landing sites, transshipment port or vessels for compliance with fisheries regulations and/or other fisheries management arrangements
- Inspects and measures fishing gear and species caught or landed in accordance with existing legislation
- Ensures proper maintenance of databases, reviews the quality of data collected and co-ordinates and supervises data entry activities
- Attends court on behalf of the unit on matters related to compliance with fisheries laws and regulations
- Participates in conferences and meetings both locally and abroad on matters relating to fisheries, monitoring and surveillance
- Disseminates information and provides technical assistance to fishermen, suppliers of fishing gear and equipment, fishing associations, enforcement officers and members of the public on fisheries laws and regulations
- Assists with the organization of training programs for the fishing industry on sanitary and *phytosanitary* requirements as well as other health related issues affecting the fishing industry
- Prepares rosters for field inspections, detail work of subordinates and supervises field activities.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Natural Science with courses related to Fisheries Management and Quality Assurance and at least four years' experience in fish handling or processing and sea operations.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; handling;
Education and Training Development:	University first degree;
Special Vocational Preparation:	Over 5 years, up to and including 10 years;
Temperaments:	Influencing people; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group;

Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;
Interests:	Plants and animals; protective;
Physical Demands:	Light work; reaching, use of hands, writing; talking-ordinary; hearing – ordinary conversation; vision-ordinary; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces.

2132.33 FISH CULTURIST

Plans, organises and coordinates preservation and development of fresh water fish farming:

- Coordinates activities of workers engaged in the maintenance and development of fresh water fish farming areas, including the maintenance of agricultural plots around fish farms
- Advises superiors on policy measures to be adopted for conservation and development of fresh water resources
- Recommends, develops and administers programmes and projects for conservation and breeding of fresh water fish
- Approves sites for fresh water fish culture
- Assists in the research of fresh water fish by collecting and analyzing statistical data on their biology, migration and effects of environment
- Develops measures to regulate the import, export and exchange of local aquarium fish
- Checks incidence of pollution of breeding grounds, ensures the isolation of contaminated species, and recommends measures for curbing the incidence of pollution
- Demonstrates fish culture methods to subordinate staff
- Participates in conferences and seminars on the development of fisheries and keeps abreast of current developments.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Marine Biology or related area and experience in the field of fisheries at the professional level.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; handling;
Education and Training Development:	University first degree;
Special Vocational Preparation:	Over 3 years, up to and including 5 years;
Temperaments:	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and processes quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular

	material;
Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Light work; use of hands and fingers; writing; talking- ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking; sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; risk of occupational diseases; glare.

2149.14 AGRICULTURAL ENGINEER

Plans, designs and implements agricultural engineering development projects associated with production, processing and handling of food:

- Prepares and submits proposals for development and/or improvement of physical structures and/or sites and equipment to optimise output from agricultural projects
- Visits agricultural engineering projects, to ensure that work is progressing satisfactorily and to ensure adherence to established engineering principles and standards
- Implements soil and water management activities such as irrigation, drainage, soil conservation and waste disposal systems
- Executes land clearance programmes on state lands and identifies agricultural areas needing access roads and bridges
- Sets up and coordinates systems for maintenance of farm machinery and equipment
- Inspects and tests machinery and equipment to determine their suitability for local farming and ensure proper maintenance
- Implements construction programmes to provide physical facilities for livestock production, fishing centres, offices and workshops
- Supervises technical and maintenance staff in performance of their duties, giving advice and ensuring availability of equipment.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Agricultural Engineering and at least six to eighteen months' experience in design, survey and layout of agricultural projects.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; precision working;
Education and Training Development:	University first degree;
Special Vocational Preparation:	Over 3 years, up to and including 5 years;
Temperaments:	Direction, control and planning of an activity or project; evaluation of information using subjective or judgemental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group;

Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;
Interests:	Scientific and technical work/mechanical work;
Physical Demands:	Light work; stooping, crouching; use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity beyond 6 metres, field of vision, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet, slippery surfaces, risk of bodily injury/loss; dust, dirt, glare.

2190.14 HYDROLOGIST

Studies location, distribution and properties of water resources to aid in utilization, conservation and management:

- Conducts research into availability of water within a geographic land area, examining form, location and consistency of occurrence
- Measures and records degree of absorption, run-off and evaporation relative to seasonal rainfall changes and monitors water table movement to advise on controlled use of water supply
- Charts water flows to determine peak periods and need for drainage or structures such as flood-protection barriers
- Supervises performance of tests to determine physical and/or chemical properties of water and assists health authorities in developing and applying measures to control pollution and water-borne diseases
- Evaluates hydrological data to solve problems of drainage, irrigation and water storage
- Determines effect of tidal conditions, intrusion of salt water into rivers and sedimentation on flow, flooding, storage and quality of water
- Directs and supervises technical and clerical subordinates assisting in collection and analysis of data.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Civil Engineering and Post Graduate Diploma in Hydrology.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; precision working;
Education and Training Development:	Post-graduate university degree/diploma;
Special Vocational Preparation:	Over 3 years, up to and including 5 years;
Temperaments:	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;

Aptitudes:	Ability to perform mathematical operations and process quickly and accurately; ability to move fingers and manipulate small objects rapidly/accurately;
Interests:	Scientific and technical work;
Physical Demands:	Light work, stooping, writing; talking-ordinary, hearing-ordinary conversation; vision-ordinary, depth perception; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces.

2250.10 VETERINARIAN

Diagnoses and treats disorders in animals and advises on aspects of animal production:

- Examines animals physically and/or employs various diagnostic techniques to determine extent of ill-health or injury
- Treats animals, with assistance of related para-professional personnel, administering medication and anaesthetics, dressing wounds or setting broken bones
- Administers obstetric care to various animal species such as cows, dogs, goats and sheep
- Inoculates animals against diseases
- Performs surgical operations such as castrations and caesarean sections and provides post-operative and follow-up care at clinics, farms or animal centres
- Advises clients on techniques of feeding, breeding and housing of animals.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Veterinary Medicine and registration with the relevant recognized professional body.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; directing work-related activities of a group of workers; precision working;
Education and Training Development:	University first degree;
Special Vocational Preparation:	Over 3 years, up to and including 5 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; performing under stress; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;
Aptitudes:	Ability to comprehend and effectively use language; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal /tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully; ability to perceive subtle colour distinctions;

Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Medium work; stooping, crouching; reaching, use of hands and fingers, feeling, strong grip, writing; talking-ordinary, other types; hearing-ordinary conversation, other sounds; vision-ordinary, acuity within 0.5 metres, depth perception, ability to adjust focusing, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; noise; slippery surfaces, risk of bodily injury/loss, risk of occupational diseases, noxious substances, radiant energy; fumes, odours, dust, dirt, glare.

2250.11 VETERINARY OFFICER

Supervises livestock production, disease control and eradication services under auspices of relevant government ministry:

- Assists in the planning and supervision of livestock development projects
- Monitors notifiable diseases among animals, institutes quarantine control and eradication measures and follows course of diseases until containment
- Examines animals, meat and meat products at port of entry to ensure adherence to statutory requirements
- Enforces quarantine regulations with regard to importation of animal products and impounding of livestock
- Investigates cause, treatment and control of diseases in animals and advises farmers on prevention and management of diseases relating to livestock
- Develops research programmes for application and use in veterinary medicine
- Supervises preventive medicine programmes such as vaccinations against rabies and control of disease-causing bats, testing of animals for tuberculosis and animal slaughter programmes
- Liaises with **Veterinarians**, public health organizations and the general public regarding control of diseases that can be transmitted from animal to man
- Trains and supervises technical staff in delivery of field programmes and services
- Performs administrative duties.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Veterinary Medicine, and registration with the relevant recognized professional body.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; directing work-related activities of a group of workers; manipulating;
Education and Training Development:	University first degree;
Special Vocational Preparation:	Over 3 years, up to and including 5 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; performing under stress; precise attainment of set limits, tolerances or standards;
Aptitudes:	Ability to comprehend and effectively use language; ability to

	visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal /tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully; ability to perceive subtle colour distinctions;
Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Medium work; stooping, crouching; reaching, use of hands and fingers, feeling, writing; talking-ordinary, other types; hearing-ordinary conversation, other sounds; vision-ordinary, acuity within 0.5 metres, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; noise; risk of occupational diseases, odours, dust, dirt, glare.

2250.12 VETERINARY PATHOLOGIST

Plans, directs and conducts research into causes and incidence of disease in animals:

- Formulates, organises and administers programmes of veterinary diagnostic laboratory and coordinates and supervises activities of professional and technical laboratory staff
- Examines blood samples and bacteria cultures from animal organs and tissues, using microscope
- Interprets results of tests performed by **Microbiologist** and other laboratory personnel
- Prepares and forwards reports on findings to **Veterinarian**
- Conducts autopsies and prepares and examines cases for pathological diagnosis
- Assists in coordinating work of veterinary laboratory with that of other agricultural programmes and activities of universities and similar institutions
- Prepares technical reports on animal diseases for submission to government bodies
- Organises in-service training for technical staff
- Prepares departmental budget, requisitions supplies and performs other administrative duties relevant to operation of department
- Prepares veterinary bulletins to update community of ongoing research.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Veterinary Medicine, MSc. Degree in Veterinary Pathology and at least four years' experience in the field of Veterinary Medicine.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; precision working;
Education and Training	
Development:	Post-graduate university degree/diploma;
Special Vocational	
Preparation:	Over 10 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with

Aptitudes:	<p>people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;</p> <p>Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/ representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully;</p>
Interests:	Scientific and technical work; leading-influencing;
Physical Demands:	Light work; stooping, raising of arms; reaching, use of hands and fingers, writing; talking-ordinary, other types; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, ability to adjust focusing, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside, daytime, working around people; wet; risk of occupational diseases, noxious substances; fumes, odours.

2250.13 VETERINARY PHYSIOLOGIST

Plans and directs research into various aspects of animal production:

- Develops and organises research programmes to improve livestock production, in collaboration with related professionals
- Investigates reproductive problems in animals and recommends corrective measures
- Monitors reproductive health of breeding animals at breeding centre and recommends replacement or culls as required
- Advises ministry personnel and other government agencies on reproductive aspects of animal production including of importation of semen, ova and embryos
- Provides technical advice to persons attached to artificial breeding laboratories
- Supervises and trains technical staff engaged in artificial breeding services
- Prepares technical reports.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Veterinary Medicine, MSc. degree in Veterinary Obstetrics and at least four years' experience in Veterinary Medicine.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; directing work-related activities of a group of workers; manipulating;
Education and Training	
Development:	Post-graduate university degree/diploma;
Special Vocational Preparation:	Over 10 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of

	information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;
Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Light work; stooping; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, ability to adjust focusing, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people, slippery surfaces, fumes, odours.

2310.12 UNIVERSITY LECTURER, FOOD AND AGRICULTURE/ University Lecturer, Agriculture and Food Technologies

Delivers tertiary level teaching in an area of academic agricultural specialization to undergraduates and/or graduate university students:

- Plans course content with other lecturers in department and compiles course bibliography
- Prepares and delivers lectures to students in agriculture
- Stimulates class discussions and fosters independent thought among students taking notes on their development and progress
- Conducts seminars, tutorial and laboratory sessions and practical demonstrations
- Supervises field trips and field work
- Prepares, administers and grades examinations by marking papers and course work
- Conducts research in agriculture specialization and prepares findings for publication in books, professional and scientific journals, departmental and faculty papers and other research publication for presentation at conferences
- Keeps abreast of advances in field by updating teaching materials by continuous review of literature and other information sources
- Conceptualizes and prepares outlines for new courses
- Liaises with colleagues at other universities, research institutes and in professional societies to discuss and evaluate research and problem issues
- Attends global conferences dealing with agricultural specialization

May be designated according to the level of responsibility for example:

RELATED TITLES

Assistant Lecturer
Senior Lecturer
Professor

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Ph.D in a specialized area in Agriculture with experience in teaching and research at university level and a proven record of publication in scientific journals.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; teaching or training others; setting-up;
Education and Training Development:	Post-graduate university degree/diploma.
Special Vocational Preparation:	Over 10 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material;
Interests:	Scientific and technical work; plants and animals; leading-influencing
Physical Demands:	Light work; climbing; raising of arms; reaching, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people

2320.11 VOCATIONAL EDUCATION TEACHER, AGRICULTURE/Teacher III

Instructs secondary school students in agricultural science subjects such as crop and livestock husbandry and related studies:

- Performs duties of **TECHNICAL/VOCATIONAL EDUCATION GRADUATE TEACHER**, specialising in giving instruction in crop cultivation, nursery and plant propagation techniques, general livestock care and related studies such as farm management and agricultural co-operatives
- Instructs students in minor repair and routine maintenance of farm structures and equipment, application of fertilisers and pest/disease control techniques
- Selects, orders and arranges for transportation of livestock, crops and related supplies for use in practical work
- Organises, supervises and assesses practical field work of students performed on individual and small group basis
- Plans and arranges field trips, accompanying students to farms, abattoirs, equipment dealers' establishments and other places of agricultural interest to provide essential learning experiences
- Monitors, coordinates and schedules activities of **School Farm Attendant** to ensure adequate preparation, handling and maintenance of garden beds, crops, livestock and equipment.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Agricultural Science with some experience in the teaching of Agricultural Science.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; teaching or training others; manipulating;
Education and Training Development:	University first degree;

Special Vocational**Preparation:****Temperaments:****Aptitudes:****Interests:****Physical Demands:****Environmental Conditions:**

Over 3 years, up to and including 5 years;

Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; evaluation of information using subjective or judgmental criteria;

Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;

Plants and animals, mechanical work, leading and influencing;

Light work/ medium work, lifting, carrying, pushing; stooping, crouching, raising of arms; reaching, use of hands, use of fingers, feeling, writing; talking-ordinary, other types; hearing-ordinary conversation, other sounds; vision-ordinary, field of vision; standing, walking, sitting;

Inside and outside, daytime, working around people; wet; slippery surfaces, noxious substances; odours, dust, dirt, toxic conditions, glare.

2320.12 AGRICULTURAL TRAINING OFFICER

Instruct students in agricultural science or agricultural teacher education and related subject areas:

- Updates and modifies existing curricula
- Prepares course work and audio-visual aids and materials for use in classroom and laboratory sessions
- Lectures to students on various aspects of agricultural science such as animal/crop husbandry, soils and agricultural engineering, and farm management
- Collects plant, animal and insect specimens, prepares solutions and carries out demonstrations during laboratory sessions assisted by **Technical Instructor, Agriculture and Forestry**
- Plans, organises and conducts practical sessions on farm, demonstrates agricultural methods and techniques and supervises students
- Arranges field trips to farms, factories and government agencies and accompanies students to areas of interest
- Supervises students' research projects, assisting in selection of topic, planning, organising and execution of project work
- Evaluates and monitors students' performance and progress through oral questioning, practical and written assignments, projects, tests and examinations, and prepares mark sheets and reports for submission to superior
- Manages projects in areas such as dairy and beef, laboratory and plant nursery, ensures implementation of work programmes and the procurement of supplies of material and equipment
- Supervises **Technical Instructor, Agriculture and Forestry**
- Controls the maintenance of all farm machinery and equipment.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Agriculture and at least six to eighteen months' experience in agriculture at a supervisory level.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; teaching or training others; manipulating;
Education and Training	
Development:	University first degree;
Special Vocational Preparation:	Over 3 years, up to and including 5 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals; leading-influencing;
Physical Demands:	Light work; climbing; stooping, kneeling, crouching, raising of arms; reaching, use of hands, use of fingers, feeling, strong grip, writing; talking-ordinary, other types; hearing-ordinary conversation, other sounds; vision-ordinary, acuity beyond 6 metres, acuity within 0.5 metres, depth perception, field of vision, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces, risk of bodily injury/loss; fumes, odours, dust, dirt, noxious substances, glare.

2320.13 FORESTRY TRAINING OFFICER

Instructs students in forestry and related subject areas:

- Updates and modifies existing curricula
- Prepares course work and audio-visual aids and materials for use in classroom and laboratory sessions
- Lectures to students on various aspects of forestry management, forest entomology and pathology, forest engineering and watershed management
- Collects plant and insect specimens, prepares solutions and carries out demonstrations during laboratory sessions assisted by **Technical Instructor, Agriculture and Forestry**
- Plans, organises and conducts practical sessions in *aboretum*
- Plans and arranges field trips and practical field sessions to forested areas, factories and government agencies and accompanies students
- Supervises students' research projects, assisting in selection of topic, planning, organising and execution of project work, monitors progress and makes final assessment
- Evaluates students' performance and progress through oral questioning, practical and written assignments, projects, tests and examinations, and prepares mark sheets and reports for submission to superior
- Manages forestry projects in areas such as laboratory and plant nursery, ensuring implementation of

- work programmes and the availability of adequate supplies of material and equipment
- Supervises **Technical Instructor, Agriculture and Forestry**.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Forestry.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; teaching or training others; manipulating;
Education and Training Development:	University first degree;
Special Vocational Preparation:	Over 2 years, up to and including 3 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals; leading-influencing;
Physical Demands:	Light work; climbing; stooping, kneeling, crouching, raising of arms; reaching, use of hands, use of fingers, feeling, strong grip, writing; talking-ordinary, other types; hearing-ordinary conversation, other sounds; vision-ordinary, acuity beyond 6 metres, acuity within 0.5 metres, depth perception, field of vision, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces, risk of bodily injury/loss; noxious substances, fumes, odours, dust, dirt, glare.

2431.27 AGRIBUSINESS DEVELOPMENT OFFICER

Executes functions which promote agricultural productivity through the provision of business advisory services and the adoption of appropriate technology:

- Participates in design of agriculture and rural development programs and projects
- Conducts market research, project planning and development activities as assigned by manager
- Assists in the design, development and implementation of technical assistance packages for agribusiness enterprises
- Provides technical advice on agriculture and rural development
- Assists in the identification and recruitment of short term consultants and multidisciplinary teams assigned to projects coordinated by the unit
- Assists in the supervision of staff and the preparation of monthly, quarterly and annual reports.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Agriculture, Management or equivalent, MSc. in Agricultural Economics or equivalent and at least eight years' post-graduate working experience in project planning, development and monitoring.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; directing the work-related activities of a group of workers; handling;
Education and Training	
Development:	Post-graduate university degree/diploma;
Special Vocational Preparation:	Over 10 years;
Temperaments:	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals; business detail;
Physical Demands:	Sedentary work; use of hands, use of fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people.

2631.13 AGRICULTURAL ECONOMIST

Conducts economic research and analysis to enhance the business decisions of agricultural corporations and stakeholders in the sector:

- Conducts economic and financial research, and evaluation to determine commercial feasibility to agribusiness project and ventures
- Studies competitiveness of commodities of economic importance
- Undertakes risk analysis evaluating crop insurance and other risks management strategies relating to selected commodities and make appropriate recommendations
- Develops and facilitates training programmes in critical areas of farm and agribusiness management for stakeholders.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-Graduate degree in Economics, Project Management or related field. At least five years' experience in a similar background.

OCCUPATIONAL PROFILE

Data/People/Things:	Integrating analyses of data to discover facts or develop concepts; communicating with people to convey or exchange information; handling;
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Education and Training**Development:**

Post-graduate university degree/diploma;

Special Vocational**Preparation:****Temperaments:**

Over 5 years, up to and including 10 years;

Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; evaluation of information using subjective or judgmental criteria;

Aptitudes:

Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal /tabular material;

Interests:

Leading/Influencing;

Physical Demands:

Light work; use of hands, use of fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;

Environmental Conditions:

Inside and outside, daytime, working around people.

3122.47 PRODUCTION SUPERVISOR, SUGAR PROCESSING

Supervises activities of workers engaged in operating equipment for the production of sugar by performing any combination of the following duties:

- Performs duties of **PRODUCTION SUPERVISOR** at sugar factory
- Monitors processing operations and advises subordinates to adjust machinery as necessary to ensure smooth and proper operation
- Examines results of quality-control tests to determine quality of incoming sugar cane
- Ensures correct addition of water
- Checks mud level in clarifiers and instructs subordinates to fill and shut off as required
- Tests consistency of syrup in vacuum pan and inspects samples to ensure that sugar product is of requisite quality
- Supervises weighing, bagging and storage activities
- Liaises with engineering personnel to facilitate optimum utilisation of equipment.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Five CSEC/GCE O-Levels including Physics and Chemistry with a minimum of three years' experience in the field.

OCCUPATIONAL PROFILE**Data/People/Things:**

Planning and directing work activities; directing work-related activities of a group of workers; handling;

Education and Training**Development:**

Forms 4 & 5, CSEC/GCE O-Level;

Special Vocational**Preparation:****Temperaments:**

Over 3 years, up to and including 5 years;

Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;

Aptitudes:

Ability to comprehend and effectively use language; ability to perform

	mathematical operations and process quickly and accurately; ability to move and work with hands easily and skillfully; ability to perceive subtle colour distinctions;
Interest:	Industrial work;
Physical Demands:	Light work; climbing; stooping, raising of arms; use of hands, use of fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside, shifts/on call; heat; noise, vibration; slippery surfaces; risk of bodily injury/loss, mechanical hazards; odours, dust, dirt.

3141.11 BOTANICAL TECHNICIAN

Performs technical functions in various aspects of botany for teaching and research purposes, by performing any combination of the following duties:

- Sets up and operates laboratory and field equipment to perform analyses
- Prepares culture-media and grows bacteria and fungi
- Monitors growth of bacteria and fungi and prepares slides for examination and storage
- Isolates plant disease organisms, removes diseased tissue and prepares sections for microscopic examination by labelling, mounting, and staining them with dyes
- Prepares *histological* samples
- Extracts *nematodes* from soil and roots and other plant material, assists in identification counting and records observations

May collect plant and soil samples and assist students during laboratory sessions.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Laboratory Technician Diploma, with at least two years' experience in the field.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; communicating with people to convey or exchange information; precision working;
Education and Training Development:	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution;
Special Vocational Preparation:	Over 2 years, up to and including 3 years;
Temperaments:	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;
Aptitudes:	Ability to visualize objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully;
Interests:	Scientific and technical work;
Physical Demands:	Light work, lifting, carrying; reaching, use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, ability to adjust focusing, colour vision; standing, walking, sitting;

Environmental Conditions: Inside and outside, daytime, working around people; wet; noxious substances, burns; fumes, odours, dirt, toxic conditions.

3142.11 AGRICULTURAL RESEARCH TECHNICIAN/Scientific Assistant, Agriculture

Performs laboratory tests on plants, livestock and soil samples and monitors field experiments by performing any combination of the following duties:

- Performs duties similar to those of **CHEMICAL LABORATORY TECHNICIAN**
- Tests water and blood samples for pesticide residues
- Tests livestock feeds to determine factors such as protein, fat and fibre content
- Records field data on plant and animal treatments and experimental conditions
- Prepares culture-media and grows fungi and bacteria, isolates fungi and bacteria from diseased tissues and extracts *nematodes* from root and soil samples
- Conducts biochemical tests on bacteria
- Counts fungal and bacterial spores and/or colonies, using microscope and colony counter;
- Supervises land preparation and general maintenance of fields
- Collects and tests samples from animals, plants and soil to determine their physical properties and structure and ascertain possible causes of diseases and irregularities
- Advises farmers on treatment of problems in accordance with specified policy and refers problems to superior.

RELATED TITLES:

Agricultural Research Laboratory Technician

Agricultural Research Field Technician

Soil Research Technician

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

BSc. in Agriculture, a relevant Technician Diploma and at least four (3) years experience in technical laboratory work including experience in soil chemistry and plant analysis.

OCCUPATIONAL PROFILE

Data/People/Things: Examining and evaluating data; communicating with people to convey or exchange information; precision working;

Education and Training

Development: University first degree;

Special Vocational

Preparation: Over 5 years, up to and including 10 years;

Temperaments: Dealing with people beyond giving and receiving instructions; influencing people; evaluation of information using subjective or judgemental criteria; precise attainment of set limits, tolerances or standards;

Aptitudes: Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully;

Interests: Scientific and technical work; plants and animals;

Physical Demands:	Light work, lifting, carrying; stooping, kneeling; reaching, use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, ability to adjust focusing, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces, noxious substances; odours, dirt, toxic conditions, glare

3142.12 AGRICULTURAL ASSISTANT

Assists with implementation of government agricultural programmes and provides technical advice and support to the farming community:

- Visits farmers in assigned district and advises on crop and animal husbandry and subsidy schemes
- Visits state lands designated for agricultural purposes and prepares sketches, subdivisions and field reports
- Participates in interviews of applicants for state land, assists successful applicants to settle in and monitors adherence to land-use policies
- Investigates reports of agricultural diseases and pests and supervises pest control operations
- Assists with research programmes and experiments and evaluates agricultural data
- Inspects plant and animal products at ports of entry, issues acceptance certificates or confiscates products
- Examines and services run-off instruments and rain gauges periodically and checks and repairs minor break-downs in agricultural machinery
- Liaises with relevant government agencies to resolve problems related to roads, drainage and health
- Assists with exhibition/demonstration and other related agricultural activities
- Supervises subordinate personnel in assigned areas and activities at agricultural stations
- Prepares reports for submission to superior

RELATED TITLES

Agricultural Assistant I/II/III.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Diploma in Agriculture or its equivalent.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; communicating with people to convey or exchange information; manipulating;
Education and Training Development:	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution;
Special Vocational Preparation:	Over 1 year, up to and including 2 years;
Temperaments:	Dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group;

Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Light work, lifting, carrying; stooping, crouching; reaching, use of hands and fingers, writing; talking-ordinary, other types; hearing-ordinary conversation; vision-ordinary, acuity beyond 6 metres, acuity within 0.5 metres, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, nights, shifts/on call, working around people; wet; slippery surfaces, risk of bodily injury/loss; odours, dust, dirt, glare.

3142.13 SERVICEMAN, POULTRY INDUSTRY/Field Service Technician, Poultry Industry

Inspects poultry farms to ensure conformance with contract standards:

- Visits and inspects farm facilities and equipment to determine sanitary condition and efficiency of operations
- Develops poultry feeding and medication programme
- Supervises vaccination or administers vaccines to chickens by placing medication in drinking water or by injecting birds
- Examines records to determine mortality rates and adherence to feeding and medication schedule and verifies records by checking feed stock and number of dead birds
- Weighs and visually examines chickens for growth rate and evidence of diseases
- Conducts post-mortems and obtains samples for laboratory testing
- Recommends changes in facilities, equipment and management techniques to improve production efficiency
- Informs **Poultry Farmers** of new procedures, changes in government regulations and company production standards
- Attends seminars and courses and liaises with **Veterinarians** to keep abreast of new developments in area
- Prepares reports for submission to superior.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Laboratory Technician Diploma, or Diploma in Agriculture with a minimum of one year on the job experience.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; communicating with people to convey or exchange information; handling;
Education and Training Development:	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution;
Special Vocational Preparation:	Over 2 years, up to and including 3 years;

Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to comprehend and effectively use language; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully;
Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Light work, lifting, carrying; stooping, crouching; use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; risk of occupational diseases; odours, dust, dirt.

3142.14 AQUACULTURE TECHNICIAN

Collects spawn and breeds and incubates fish in aquaria and/or ponds:

- Visits natural habitats such as rivers and swamps and collects spawn and/or adult fish such as cascadura and conch
- Stocks adults in troughs or ponds
- Prepares hatchery according to salinity and temperature specifications and deposits eggs
- Prepares various types of food and feeds stock at scheduled times
- Removes hatchlings from nursery and transfers them to ponds
- Monitors and adjusts dissolved oxygen and alga concentrations in ponds
- Drains ponds and transports fingerlings to laboratory
- Examines and separates fingerlings according to gender and stocks male fingerlings in ponds
- Collects samples from ponds, weighs fingerlings and adjusts feeding rates as necessary
- Cleans and maintains laboratory and ponds
- Prepares tables giving details such as feeding and growth rates, mortality rates, number of specimens in stock and other related data.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Two CAPE/GCE A-Levels including Biology and at least six months' experience in the field.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; communicating with people to convey or exchange information; precision working;
Education and Training Development:	CAPE/GCE A-Level;
Special Vocational Preparation:	Over 6 months, up to and including a year;
Temperaments:	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;

Aptitudes:	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully;
Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Light to medium work, lifting, carrying; stooping, kneeling, crouching; use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, depth perception, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces; odours, dirt, glare.

3142.15 EXTENSION OFFICER , FISHERIES

Liaises with fishing community to promote development of fishing industry:

- Assists fishermen in organisation of fishing groups and cooperatives
- Reviews applications for fishing permits, loans and duty-free concessions and makes recommendations
- Advises on matters relating to fish marketing, distribution, processing and related legislation
- Arranges for establishment of fish centres, storage and sanitary facilities
- Assists superior in investigation of incidents involving fishermen at sea and settlement of disputes among fishermen and reports on unresolved problems
- Surveys and registers fishermen, fishing boats and engines and updates registers periodically
- Participates in activities such as exploratory fishing trips and experimental fish processing to assess potential of fishing areas and inform fishermen on improved methods and techniques
- Organises educational activities such as lectures, film shows and demonstrations
- Supervises fishing centre caretakers.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Three CSEC/GCE subjects including Biology and experience in the field of fisheries or any equivalent combination of experience and training.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; communicating with people to convey or exchange information; manipulating;
Education and Training	
Development:	Forms 4 & 5, CSEC/GCE O-Level;
Special Vocational Preparation:	Over 1 year, up to and including 2 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to comprehend and effectively use language; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;

Interests:	Plants and animals;
Physical Demands:	Light work; climbing, stooping, crouching, raising of arms; reaching, use of hands and fingers, writing; talking-ordinary, other types; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, nights, working around people; wet; slippery surfaces; fumes, odours, dust, dirt, toxic conditions.

3142.16 FISHERIES ASSISTANT

Provides extension services to fish farmers to develop fisheries production and monitors import and export of freshwater fish:

- Visits pond sites and inspects facilities to ensure proper construction and preparation of ponds and obtains samples of fish population and water to ascertain production levels
- Visits fishing areas to stamp engines used for commercial fishing and checks on the upkeep of boats and engines and prepares and issues Identification Cards to fishermen
- Assists in experimental work on the culture of various species of fish, particularly fresh water fish, for commercial purposes
- Distributes fingerlings to farmers and gives advice on stocking rates, water flow and pollution control techniques, and use of lime and fertilisers to increase production rates
- Liaises with banking personnel to assist farmers with procurement of loans and to ascertain payment for exports
- Liaises with relevant authorities to authenticate import licences and advise them of fish-export season to ensure controlled outflow of local species
- Examines documents and imported stock at airport to ensure adherence to requirements
- Assists in collection of stock from nursery grounds and in arranging film shows and demonstrations on fish farming
- Collects data such as price and quantity of all species of fish, shrimps, crabs and lobsters caught
- Sells station produce to members of the public and maintains related records
- Compiles annual returns and prepares reports for submission to supervisor
- Photographs private fish farms for demonstration and records purposes.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Three CSEC/GCE O-Level passes including Biology with at least two years' experience in the field of fisheries or any equivalent combination of experience and training.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; communicating with people to convey or exchange information; manipulating;
Education and Training Development:	Forms 4 & 5, CSEC/GCE O-Level;
Special Vocational Preparation:	Over 1 year, up to and including 2 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria;

Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material;
Interests:	Plants and animals;
Physical Demands:	Light work, carrying; stooping, crouching; reaching, use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, nights , working around people; cold, wet; slippery surfaces; odours, dirt, glare.

3142.17 INSPECTOR, COCOA AND COFFEE INDUSTRY

Inspects establishments and operations concerned with purchase, preparation, storage and sale of cocoa and coffee to ensure compliance with procedures and standards:

- Inspects cocoa and coffee warehouses and depots to ensure sanitary conditions and appropriate storage and security
- Checks establishment's records and stored produce to verify correspondence with data submitted to regulatory body
- Examines cocoa and coffee beans and berries to ensure grading according to standards
- Issues certificate of quality for export purposes
- Validates export licences and certifies cocoa and coffee imports and exports
- Advises **Buying Agents** and **Exporters** on preparation, buying, selling and export of produce and arbitrates in disputes
- Issues official stationery such as application forms for licences, monthly return forms and claim forms
- Prepares summaries of cocoa and coffee sales purchases on import and export
- Forwards necessary information to government departments and international cocoa and coffee organizations.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Diploma in Agriculture and at least three years experience in the cocoa and coffee industry.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; communicating with people to convey or exchange information; handling;
Education and Training Development:	Awards not equivalent to university first degrees, obtained at technical institute, training school or similar institution;
Special Vocational Preparation:	Over 3 years, up to and including 5 years;
Temperaments:	Dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;

Interests:	Business detail;
Physical Demands:	Light work; stooping, crouching; use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside, daytime; noise; odours, dust.

3142.19 FISH INSPECTOR

Enforces laws and regulations pertaining to fishing activities, implements the work program of the Fisheries Division and ensures compliance with national and international fisheries obligations:

- Conducts field visits to specified landing beaches and trans-shipment ports for fish and fishery products
- Boards vessels and inspects catch and gear to ensure compliance with national laws and regulations
- Monitors vessel landings and size restrictions on specified species for compliance with and enforcement of national and international agreements
- Conducts inspections at fish processing plants, landing facilities and vessels to monitor compliance with fisheries regulations
- Leads inspection of fishing fleet to monitor compliance with and enforce gear specifications as outlined in law and participates in joint monitoring and surveillance activities with relevant agencies to ensure compliance with fisheries regulations
- Attends court proceedings on behalf of the unit to give evidence on infringements of fisheries regulations
- Records data and prepares reports for monitoring, surveillance and enforcement activities
- Prepares reports on field inspections and level of compliance with fisheries regulations.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

At least two CAPE/GCE A-Level subjects with at least one Biological or Social Science subject. Individuals must be precepted. The ability to operate at sea would be an asset.

OCCUPATIONAL PROFILE

Data/People/Things: Examining and evaluating data; communicating with people to convey or xchange information; handling;

Education and Training

Development: CAPE/GCE A-Level, Form 6;

Special Vocational

Preparation: Over 1 year, up to and including 2 years;

Temperaments: Dealing with people beyond giving and receiving instructions; precise attainment of set limits, tolerances or standards; ability to work as part of a team/group;

Aptitudes: Ability to comprehend and effectively use language; ability to visualize objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;

Interests: Plants and animals; protective;

Physical Demands:	Light work, lifting; climbing; stooping, raising of arms; reaching, use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces, risk of bodily injury/loss.

3142.20 COCOA EXTENSION OFFICER

Provides advisory and practical help to farmers to increase cocoa production:

- Advises farmers on modern agricultural methods to help them develop the skills and techniques necessary to function efficiently
- Trains farmers in the control of pests and diseases
- Participates in interviews of applicants for state lands and subsidy schemes and makes recommendations for assistance based on suitability
- Maintains a database for farmers to facilitate monitoring of loans and scheduling of group meetings and practical demonstrations
- Establishes and maintains effective working relationships with associates and the farming community
- Conducts school field trips to cocoa estates.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Diploma in Agriculture and at least three years experience in agriculture.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; teaching or training others; handling;
Education and Training Development:	Awards not equivalent to university first degree obtained at technical institute training school, similar institution;
Special Vocational Preparation:	Over 3years, up to and including 5 years;
Temperaments:	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations quickly and effectively; ability to work with hands easily and skillfully;
Interests:	Plants and animals; business detail;
Physical Demands:	Light work, lifting; stooping; raising of arms; writing; talking-ordinary, other types; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, working around people; fumes, dirt

3142.21 AGRICULTURAL EXTENSION AIDE

Informs farmers and assists with various programmes conducted by government ministry:

- Assists in the conduct of farm and school visits to promote agricultural development

- Assists in the inspection of lands in respect of applications for subsidies
- Assesses crop loss in cases of natural disasters
- Assists in the construction of exhibition booths and preparation of exhibits
- Informs farmers of film shows, lectures and demonstrations
- Conducts visits to home gardens and householders
- Assists in the conduct of surveys to identify and exterminate agricultural pests which affect the agriculture.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary School Leaving Certificate and four to eight years' experience in agricultural methods and practice.

OCCUPATIONAL PROFILE

Data/People/Things:	Gathering, collating or classifying information; communicating with people to convey or exchange information; handling;
Education and Training Development:	Post-primary, Forms 1, 2, 3;
Special Vocational Preparation:	Over 5 years, up to and including 10 years;
Temperaments:	Dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group;
Aptitudes:	Ability to comprehend and effectively use language; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals;
Physical Demands:	Light work; crouching, raising of arms; use of hands and fingers; talking-ordinary; hearing-ordinary conversation; vision – ordinary; standing, walking;
Environmental Conditions:	Inside and outside, daytime; working around people; wet; dirt.

3142.22 AGRICULTURAL TECHNICAL AIDE

Carries out routine technical support functions for agricultural experiments and disease surveys:

- Assists with the citrus virus testing program including propagation and *inoculation* of test plants, observing experimental test plants and keeping records
- Collects materials from disease suspected tree crops
- Assists in carrying out grafting experiments aimed at producing improved species of fruit trees
- Grows plants in greenhouses and outdoors for experimental purposes
- Assists with maintenance of plant pathology laboratory
- Prepares time books, records experimental data and prepares plans for experimental plots
- Assists in binding, sorting and classification of library books and records.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary school leaving certificate with at least six months' experience in agricultural related activities.

OCCUPATIONAL PROFILE

Data/People/Things:	Transcribing, entering or posting data; carrying out assigned work; manipulating;
Education and Training Development:	Post-primary, Forms 1,2,3;
Special Vocational Preparation:	Over 6 months, up to and including a year;
Temperaments:	Evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group;
Aptitudes:	Ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals;
Physical Demands:	Light work, lifting, carrying; stooping, crouching, raising of arms; reaching, use of hands and fingers; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces; dirt.

3143.11 FORESTER

Develops and controls forested lands and resources for economic, ecological, recreational, hydrological and social purposes:

- Coordinates activities relating to control of flooding and soil erosion and other forest conservation measures in forestry division
- Visits forest plantations and natural forested areas to collect data, examine field work and enforce existing laws and regulations
- Assists in collation and analysis of data collected
- Investigates encroachments and complaints and apprehends offenders where necessary
- Leads the detection and suppression of forest fires and conducts fire prevention programmes
- Oversees reforestation and other *silvicultural* works
- Implements programmes on forest extension and agroforestry
- Maintains recreational facilities in forests and advises visitors on enforceable regulations
- Visits educational institutions and conducts workshops and tours of forested areas to educate students and members of the public on value of forest and wildlife
- Supervises subordinate staff, allocates and reviews assignments and prepares staff, financial and work reports for submission to senior administrative personnel
- Surveys sites and supervises workers engaged in constructing roads, buildings and bridges in forested areas.

RELATED TITLES

Forester I/II/III.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

CSEC/GCE O-Level including Mathematics, English Language and a science subject, Diploma in Tropical Forestry.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; handling;
Education and Training Development:	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution;
Special Vocational Preparation:	Over 1 year, up to and including 2 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to comprehend and effectively use language; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals; protective;
Physical Demands:	Light to medium work; climbing, balancing; raising of arms; reaching, use of hands, writing; talking-ordinary; hearing-ordinary conversation vision-ordinary; acuity beyond 6 metres; standing, walking, sitting good bodily coordination;
Environmental Conditions:	Inside and outside, daytime, nights; wet, humidity; slippery surfaces, risk of bodily injury/loss, burns; dust, dirt, glare.

3152.14 CAPTAIN, FISHING VESSEL / Trawler Captain

Manages operations of fishing vessel and co-ordinates activities of crew:

- Interviews, hires and trains crew in use of fishing equipment
- Prepares watch schedule and assigns duties to crew to ensure safe navigation of vessel
- Sets vessel course and computes locations, using navigational aids such as charts, compass, tables and global positioning satellite
- Steers vessel or instructs crew member at helm to steer vessel to fishing grounds according to predetermined course
- Directs operations, applying knowledge of areas, data-collecting equipment such as fish finder, echo sounder and temperature gauge, and capabilities of crew and vessel
- Supervises crew and assists with maintenance of vessel and fishing equipment
- Arranges for purchase of supplies and equipment
- Makes necessary arrangements for discharge of catch
- Records daily activities in ship's log.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

CSEC/GCE O-Level subjects including Mathematics, Geography and English Language; certification in Basic Seamanship and Coastal Navigation, Launch Captain Licence or Boat Master 111 certification.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; driving-operating;
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Education and Training**Development:**

Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution;

Special Vocational**Preparation:**

Over 3 years, up to and including 5 years;

Temperaments:

Direction, control and planning of an activity or project; performing under stress; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;

Aptitudes:

Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully; ability to move body members with good coordination;

Interests:

Mechanical work; leading-influencing;

Physical Demands:

Medium work, lifting, carrying, pulling, controls; crouching, raising of arms; reaching, use of hands, writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, acuity beyond 6 metres, acuity within 0.5 metres, depth perception, field of vision, colour vision, night vision; standing, walking, sitting; good bodily coordination;

Environmental Conditions:

Inside and outside, confined spaces, daytime, nights, working around people; wet; noise, vibration; slippery surfaces, risk of bodily injury/loss, noxious substances; fumes, odours, glare.

3240.11 ANIMAL HEALTH ASSISTANT

Assists professional staff in providing health care to animals:

- Assists superior in surgical procedures by administering medication and oxygen, swabbing incisions and performing other related duties as directed
- Cares for animals after surgery by taking and recording temperature, pulse and other vital signs
- Gives injections and intravenous fluids and assists in follow-up care
- Participates in preventive medicine programmes by assisting in administering of vaccines against rabies and testing of animals for tuberculosis at farms and other designated premises
- Assists in collection of data pertinent to infectious diseases and ensures adherence to disease-control rules and regulations.

RELATED TITLES

Veterinary Public Health Assistant

Veterinary Assistant

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Diploma in Animal Health or Diploma in Agriculture supplemented by an approved course in Animal Health and on the job training.

OCCUPATIONAL PROFILE**Data/People/Things:**

Gathering, collating or classifying information; attending to the

	requests/needs of people; tending;
Education and Training Development:	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution;
Special Vocational Preparation:	Over 2 years, up to and including 3 years;
Temperaments:	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;
Aptitudes:	Ability to perceive pertinent details/differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully; ability to perceive subtle colour distinctions;
Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Light work to medium work, lifting, carrying; stooping, crouching; reaching, use of hands and fingers, feeling, writing, strong grip; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, acuity within 0.5 metres, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; noise; slippery surfaces, risk of bodily injury/loss, risk of occupational diseases, noxious substances; fumes, odours, dust, dirt, glare.

3240.12 ANTI-RABIES ASSISTANT

Assists Veterinary Officers in clinical care and treatment of Government and privately owned utility livestock and the eradication and control of paralytic rabies:

- Assists in the vaccination of livestock against rabies
- Participates in surveys to determine the incidence and prevalence of diseases of economic importance to livestock and of public health significance in programmes of epidemiological surveillance and control
- Assists in the testing of livestock for Tuberculosis
- Monitors and traps bats
- Investigates complaints of animals bitten by bats and information received from the public of the presence of bats
- Uses strategies for the control and management of rabies
- Disseminates information to the public with regard to rabies control
- Prepares various reports and maintains records, relevant to field of work.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary School Leaving Certificate with at least six months' experience in handling animals.

OCCUPATIONAL PROFILE

Data/People/Things:	Gathering, collating or classifying information; attending to the requests/needs of people; manipulating;
Education and Training Development:	Post-primary, Forms 1,2,3;
Special Vocational	

Preparation:	Over 6 months, up to and including a year;
Temperaments:	Evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;
Aptitudes:	Ability to perceive pertinent details/differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully; ability to perceive subtle colour distinctions;
Interests:	Scientific and technical work; plants and animals;
Physical Demands:	Light work to medium work, lifting, carrying; stooping, crouching; reaching, use of hands and fingers, feeling, writing, strong grip; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, acuity within 0.5 metres, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; noise; slippery surfaces, risk of bodily injury/loss, risk of occupational diseases, noxious substances; fumes, odours, dust, dirt, glare.

3323.12 BUYING AGENT, COCOA AND COFFEE

Buys, processes and sells cocoa and coffee under licence from regulatory body:

- Weighs and examines produce on arrival at depot to determine grade and ascertain processing needs
- Purchases cocoa and coffee beans and berries from growers, calculating price based on weight and grade
- Supervises or performs tasks relating to loading and storage
- Arranges for sale and delivery of produce to exporters after processing and bagging
- Ensures display of guidelines and price lists issued by regulatory body for information of produce growers
- Liaises with inspector of regulatory body to verify matters relating to grading, processing and storage of produce
- Prepares monthly returns summarizing purchase and sale of cocoa and coffee and forwards to regulatory body.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary education and at least three years' experience in the cocoa and coffee industry. A licence from the Cocoa and Coffee Industry Board is required.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; handling;
Education and Training	
Development:	Post-primary, Forms 1,2,3;
Special Vocational	
Preparation:	Over 2 years, up to and including 3 years;
Temperaments:	Direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perform mathematical operations and process quickly and

	accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;
Interests:	Mechanical work; business detail;
Physical Demands:	Light work to heavy work, lifting, carrying; stooping, crouching, raising of arms; reaching, use of hands and fingers, strong grip; writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside, daytime, working around people; wet; noise; odours, dust, dirt.

3610.11 TECHNICAL INSTRUCTOR, AGRICULTURE AND FORESTRY

Conducts field sessions for agricultural and forestry students and demonstrates complementary skills and techniques:

- Plans yearly practical programme with reference to specified curricula;
- Monitors students' performance through oral questioning and written assignments, and assesses research projects
- Conducts practical field sessions for agriculture and forestry students, demonstrating related methods and techniques such as land preparation, pest and disease control, castration and milking of animals and use of agricultural and forestry equipment and machinery
- Assists **Agricultural Training Officer and Forestry Training Officer** in performance of duties
- Collects specimens and prepares relevant illustrations for use in demonstrations and theoretical sessions
- Checks animals for wounds and illnesses, treats minor ailments and notifies **Veterinarian** as required
- Observes animals for *oestral* period and informs **Artificial Insemination Technician**
- Prepares and allocates small-group assignments to complement classroom activities
- Maintains records of students' attendance at practical sessions and reports on individual problems and progress to superiors
- Supervises auxiliary staff such as **Farm Labourers** and **Woodsmen**
- Consults with superior to determine building needs and makes recommendations for repair, renovation and erection of farm structures
- Liaises with stores personnel to arrange for distribution of supplies and equipment to students and auxiliary staff
- Maintains stock inventory and completes and submits requisition forms to relevant personnel
- Ensures that tools, equipment, machinery and other teaching materials are properly maintained.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Diploma in Agriculture or Forestry with at least four years' experience in agricultural or forestry methods and practices.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; teaching or training others; manipulating;
Education and Training Development:	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution;
Special Vocational Preparation:	Over 5 years, up to and including 10 years;

Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; dealing with people beyond giving and receiving instructions; influencing people; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;
Aptitudes:	Ability to comprehend and effectively use language; ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals; leading-influencing;
Physical Demands:	Light to medium work, lifting, carrying, controls; stooping, crouching, raising of arms; reaching, use of hands and fingers, feeling, writing; talking-ordinary, other types; hearing-ordinary conversation, other sounds; vision-ordinary; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces, noxious substances, radiant energy; odours, dust, dirt, toxic conditions, glare.

3610.12 FARM SCHOOL INSTRUCTOR

Instructs students in theoretical and practical aspects of agricultural science to prepare them for employment:

- Performs duties similar to those of **Technical Vocational Teacher 1**
- Lectures to students on aspects of crop and animal husbandry and other subjects related to agricultural science
- Conducts practical training of students in crop and livestock management skills with the assistance of the **Farm School Demonstrator** and assesses the students' ability and progress
- Plans and arranges field trips to livestock and vegetable farms and accompanies students on visits
- Prepares work schedules for farm personnel and monitors their performance
- Maintains production records concerning planting and harvesting of crops, egg and milk production and animal births and deaths
- Maintains stock records of tools and equipment and undertakes minor repairs when necessary
- Assists in the placement of students for on-the-job training
- Prepares annual reports for submission to superior
- Organises sale of farm produce, with assistance of farm personnel, and maintains records of sale of produce.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Diploma in Agriculture and at least five years' experience in agricultural methods and techniques.

OCCUPATIONAL PROFILE

Data/People/Things: Examining and evaluating data; teaching or training others; manipulating;

Education and Training

Development: Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution;

Special Vocational**Preparation:****Temperaments:****Aptitudes:****Interests:****Physical Demands:****Environmental Conditions:**

Over 5 years, up to and including 10 years;

Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria;

Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;

Plants and animals; leading-influencing;

Light work, lifting, carrying, pushing, pulling; stooping, crouching, raising of arms; reaching, use of hands and fingers, feeling, strong grip, writing; talking-ordinary, other types; hearing-ordinary conversation, other sounds; vision-ordinary, field of vision, colour vision; standing, walking, sitting;

Inside and outside, daytime, shifts/on call, working around people; wet; slippery surfaces, risk of bodily injury/loss; odours, dust, dirt, toxic conditions, glare.

3610.13 FISHING GEAR TECHNOLOGIST-INSTRUCTOR

Designs, constructs, evaluates and modifies fishing gear and instructs trainees in construction, operation, maintenance and repair of gear:

- Performs duties of **NON-GRADUATE TECHNICAL AND VOCATIONAL EDUCATION TEACHER** at fisheries training institute
- Teaches aspects of gear preparation such as making of knots and splices
- Determines needs and makes recommendations for fishing gear repair and construction
- Designs fishing gear, such as trawling and beach nets, fish pots and lines, applying knowledge of fishing methods, biological and engineering systems and oceanography
- Constructs gear according to particular designs and specifications, using hand tools, welding equipment and materials such as rope, wire, cork and needles
- Evaluates functioning of gear under normal conditions on board fishing vessel, in consultation with seafarers, and modifies gear as required
- Conducts research in the area of fishing gear technology
- Advises on and supervises selection, purchase, maintenance and storage of tools, equipment and raw materials.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

CSEC/GCE O-Level subjects with Advanced Level Mathematics being an asset; at least five years' experience in the construction, hanging, rigging, mending and maintenance of fish and shrimp trawling nets and a sound knowledge of the principles of trawl fishing.

OCCUPATIONAL PROFILE**Data/People/Things:**

Examining and evaluating data; teaching or training others; manipulating;

Education and Training**Development:**

Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution;

Special Vocational**Preparation:****Temperaments:**

Over 5 years, up to and including 10 years;

Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; influencing people; evaluation of information using subjective or judgmental criteria;

Aptitudes:

Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to visualize objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;

Interests:

Plants and animals; leading-influencing;

Physical Demands:

Medium work, lifting, carrying, pushing; stooping, crouching, raising of arms; reaching, use of hands and fingers, feeling, strong grip, writing; talking-ordinary, other types; hearing-ordinary conversation, other sounds; vision-ordinary, field of vision; standing, walking, sitting;

Environmental Conditions:

Inside and outside, daytime, nights, working around people; wet; slippery surfaces, risk of bodily injury/loss; odours, dust, dirt, toxic conditions, glare.

3610.14 FARM SCHOOL DEMONSTRATOR

Demonstrates practical aspects of crop and animal husbandry to farm school students and supervises farm maintenance personnel to ensure general maintenance of farm:

- Assists **Farm School Instructor** by demonstrating to students, methods and techniques used in practical aspects of crop and animal husbandry such as preparation of seed beds, budding, grafting and pruning of trees, castration and deworming of animals, construction of animal pens and operation and maintenance of farm machinery
- Checks animals for obvious signs of illness or disease, administers simple treatment to sick animals and refers major problems to superior
- Assists in planning and preparation of daily work schedules and supervises farm maintenance personnel
- Organises sale of farm produce
- Issues agricultural tools and equipment to farm personnel and students for use in practical work
- Collects and compiles data on types of seeds sown, dates of transplanting and fertilising, increase or decrease in livestock numbers and other related matters.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Diploma in Agriculture and at least eighteen months' experience in crop and animal husbandry.

OCCUPATIONAL PROFILE

Data/People/Things:	Gathering, collating or classifying information; directing work-related activities of a group of workers; manipulating;
Education and Training Development:	Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution;
Special Vocational Preparation:	Over 3 years, up to and including 5 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to comprehend and effectively use language; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals;
Physical Demands:	Light work, lifting, carrying, pushing, pulling; stooping, crouching, raising of arms; reaching, use of hands, use of fingers, feeling, strong grip, writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, field of vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, shifts/on call, working around people; heat; wet; slippery surfaces, risk of bodily injury/loss, odours, dust, dirt, toxic conditions, glare.

4321.15 SUGAR-CANE WEIGHER

Weighs cut sugar-cane for processing at mill:

- Ensures that loaded tasker-trailer is positioned on scale and that scale needle is properly balanced before weighing
- Examines *tare board* of scale house to ensure that weight of truck and trailer container meet with specifications
- Instructs driver to correct weight of container if necessary
- Inserts cane ticket into weighing slot on scale and presses button to record gross weight of tasker and trailer
- Subtracts tare weight of tasker-trailer from gross weight to obtain net weight of cane
- Records ticket number of **Sugar-Cane Farmer**, weight of cane and other data to be submitted for payment of **Sugar-Cane Farmers**
- Forwards information to traffic and engineering department.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Forms 4 & 5 CSEC/GCE O-Level, with at least one month on the job experience.

OCCUPATIONAL PROFILE

Data/People/Things:	Gathering, collating or classifying information; communicating with people to convey or exchange information; handling;
Education and Training Development:	Forms 4 and 5, CSEC/GCE O-Level;

Special Vocational**Preparation:**

Over 30 days, up to and including 3 months;

Temperaments:

Repetitive or short-cycle work; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;

Aptitudes:

Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material;

Interests:

Business detail;

Physical Demands:

Light work; use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, sitting;

Environmental Conditions:

Inside and outside, daytime, shifts/on call, working around people; noise, dust, dirt.

4321.17 SUGAR WEIGHER

Checks weight of bagged refined sugar on packaging machine and adjusts scale to ensure bagging of prescribed weight:

- Observes scale on packaging machine to verify that correct weight of sugar is bagged
- Collects and weighs samples of bagged sugar periodically, using table scale
- Records weight of samples and time of weighing
- Puts aside underweight packages for collection and reprocessing
- Signals **Packaging Machine Operator, Food Products** to stop packaging machine and adjusts machine scale if weights are unsatisfactory
- Returns to observation post and repeats monitoring procedure until end of shift.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary Education with up to three months' on the job training.

OCCUPATIONAL PROFILE**Data/People/Things:**

Transcribing, entering or posting data; communicating with people to convey or exchange information; tending;

Education and Training**Development:**

Post-primary, Forms 1,2,3;

Special Vocational**Preparation:**

Over 30 days, up to and including 3 months;

Temperaments:

Repetitive or short-cycle work; evaluation of information using subjective or judgmental criteria;

Aptitudes:

Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material;

Interest:

Mechanical work;

Physical Demands:

Light work; raising of arms; use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting;

Environmental Conditions:

Inside and outside, daytime, nights, shifts/on call, working around people; noise.

5419.16 GAME WARDEN

Enforces game laws to ensure preservation of indigenous species:

- Patrols general forests areas, state lands, forest reserves and wildlife sanctuaries on foot or in vehicle or boat
- Monitors private lands to ensure compliance to Wildlife Act
- Inspects **Hunters'** catch for breach of wildlife regulations, issues caution certificate to first offenders and prefers charges against violators
- Examines hunting and gun licences to verify validity and authenticity
- Acts as scout for biological research team, observes wildlife behaviour and habitat, searches for endangered species and assists with collection of wildlife data
- Attends magistrate's court to give evidence against charged persons
- Attends meetings of Hunters' Associations and wildlife interest groups to disseminate information, receive reports and promote better public relations.

RELATED TITLES

Game Warden I/II

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Three CSEC/GCE O-Levels including Mathematics and English Language and on the job training.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; communicating with people to convey or exchange information; manipulating/handling;
Education and Training Development:	Forms 4 & 5, CSEC/GCE O-Level;
Special Vocational Preparation:	Short demonstration/Training lasting up to 30 days;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to comprehend and effectively use language; ability to visualize objects in three dimensions from drawings/representations; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully; ability to perceive subtle colour distinctions;
Interests:	Plants and animals; protective;
Physical Demands:	Medium to heavy work, lifting, carrying, pushing, pulling, throwing, controls; climbing, balancing; stooping, kneeling, crouching, raising of arms; reaching, use of hands, strong grip, writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, acuity beyond 6 metres, field of vision, ability to adjust focusing, colour vision, night vision; standing, walking, sitting; good bodily coordination;
Environmental Conditions:	Inside and outside, daytime, nights, shifts/on call, working alone, working around people; wet; slippery surfaces, risk of bodily injury/loss; odours, dust, dirt, mist, glare.

5419.19 PLANT QUARANTINE GUARD

Patrols ports of entry to enforce plant quarantine ordinance:

- Monitors passengers at airports and docks to detect attempts to land with prohibited plants, fruit, vegetables and related items
- Inspects aeroplanes and passenger ships alongside wharf to prevent departure of passengers with prohibited items
- Keeps watch on in-transit vessels anchored outside harbour to prevent illicit import and export of prohibited material
- Accompanies plants and fruits being conveyed for examination by **Agricultural Assistants**
- Fumigates plants and related material in fumigation chamber and destroys prohibited items
- Takes information from persons applying for plant quarantine permits and performs related clerical and other assigned duties.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post Primary Education and at least eighteen months' experience with plants and fruits and patrol work.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; communicating with people to convey or exchange information; manipulating;
Education and Training	
Development:	Post-primary, forms 1,2,3;
Special Vocational Preparation:	Over 1 year, up to and including 2 years;
Temperaments:	Dealing with people beyond giving and receiving instructions; Evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to comprehend and effectively use language; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;
Interests:	Protective; plants and animal;
Physical Demands:	Light work, lifting, carrying; climbing; stooping; reaching, use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, nights, shifts/on call, working around people; noise, slippery surfaces, noxious substances; odours, glare, poor ventilation.

6111.10 FIELD CROP FARMER

Operates farm to produce field crops for marketing:

- Performs duties of **CROP FARMER** to direct activities relating to planting, cultivating, harvesting and processing field crops such as vegetables, sugar-cane and rice
- Prepares nurseries and propagates seedlings where applicable
- Supervises and/or operates machinery for land preparation and harvesting of crops.

RELATED TITLES

Rice Farmer

Sugar-Cane Farmer

Vegetable Farmer

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Secondary School Education, short courses in agriculture and at least three years' experience in field crop farming. A CSEC pass in Agricultural Science or CVQ Level 1 in Crop Production is an asset.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; manipulating;
Education and Training Development:	Forms 4 & 5, CSEC/GCE O-Level;
Special Vocational Preparation:	Over 2 years, up to and including 3 years;
Temperaments:	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals; business detail;
Physical Demands:	Medium to heavy work; lifting, carrying, pushing, pulling, controls, stooping, crouching; use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; risk of bodily injury/loss, risk of occupational diseases, mechanical hazards, radiant energy; dust, dirt, toxic conditions glare.

6112.10 TREE CROP GROWER

Operates estate to produce tree crops for marketing:

- Determines acreage and type of crop for cultivation, based on traditional practices and market intelligence information
- Directs, supervises and trains farm workers to prepare lands, plant and cultivate, harvest and prepare crop for market
- Selects and arranges for purchase of supplies such as young plants, chemicals, agricultural machinery and equipment
- Inspects crop during growth, identifies disease or replanting needs and institutes agricultural practices to obtain best results
- Visits work sheds, *fermentary*, drying houses and storage areas to observe general conditions and identifies maintenance requirements
- Liaises with subordinate supervisory personnel to ascertain crop yields, schedule activities, discuss budget, work techniques and personnel matters and determine supply needs
- Arranges for sale of produce to contracted marketing company, wholesaler or retailer

- Liaises with personnel from extension services and other agencies to obtain information on new techniques and technologies for cultivation, weed and pest control measures and other advisory services
- Recruits and discharges workers
- Compiles and analyses financial and production records to determine production and profitability of establishment and plan future activities
- Performs duties of farm worker if necessary.

RELATED TITLES

Citrus Grower
Cocoa Grower
Coconut Grower
Coffee Grower

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Secondary education, training in tree crop farming from recognised institution and at least two years' experience in tree-crop farming.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; manipulating;
Education and Training Development:	Forms 4 & 5, CSEC/GCE O-Level;
Special Vocational Preparation:	Over 2 years, up to and including 3 years;
Temperaments:	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial /graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals, business detail;
Physical Demands:	Medium work; stooping, crouching; use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces, risk of bodily injury/loss, risk of occupational diseases, noxious substances; odours, dirt, glare.

6113.12 GARDENER

Maintains public and private gardens and grounds, and cultivates flowering plants and vegetables by performing any combination of the following duties:

- Cuts lawns and grass of gardens, parks, playing fields, or other large grassed areas, using motorised or manual lawnmower
- Prunes and shapes trees and shrubs and trims hedges, using clippers and shears
- Loosens soil around plants and weeds beds to promote growth and enhance appearance

- Rakes and sweeps leaves and other debris from lawns, drains, garden paths and driveways
- Sprays plants, trees and lawns with fungicide, insecticide and herbicide
- Plants trees, shrubs and flowering plants and fertilises growing vegetation
- Waters outdoor or indoor plants, using watering can, sprinkler or garden hose
- Collects and disposes of garden waste
- Maintains garden tools and equipment.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary School Leaving Certificate.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/ or differences; carrying out assigned work; operating-controlling;
Education and Training	
Development:	Post-primary;
Special Vocational Preparation:	Over 30 days, up to and including 3 months;
Temperaments:	Repetitive or short-cycle work; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals;
Physical Demands:	Medium work; lifting, carrying, pushing, pulling, use of hand/arm and/or foot/leg to operate and control machinery or equipment; stooping, crouching, raising of arms; reaching, use of hands and fingers; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking;
Environmental Conditions:	Outside, daytime; wet; slippery surfaces, risk of bodily injury/loss, noxious substances, mechanical hazards; radiant energy, fumes, dust, dirt, toxic conditions, glare.

6114.10 MIXED-CROP FARMER

Operates farm to produce a variety of tree, field and vegetable crops for marketing:

- Determines type, quantity and ratio of crops to be grown
- Performs duties of **CROP FARMER** to direct activities relating to planting, cultivating, harvesting and processing of crops.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Secondary education, training courses in crop farming from relevant institutions and three years' experience in crop farming.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; manipulating;
Education and Training	
Development:	Forms 4 & 5, CSEC/GCE O-Level;
Special Vocational	

Preparation:	Over 2 years, up to and including 3 years;
Temperaments:	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details /differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals, business detail;
Physical Demands:	Medium to heavy work; stooping, crouching; use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces, risk of bodily injury/loss, risk of occupational diseases, noxious substances, mechanical hazards, radiant energy; dust, dirt, glare.

6121.13 LIVESTOCK FARMER

Manages farm to breed and/or raise livestock such as cattle or sheep, for sale of animals or animal products:

- Hires and supervises **Livestock Farm Workers**
- Purchases supplies and equipment and ensures availability of adequate supply of facilities to carry out farm operation
- Plans and coordinates breeding, feeding and milking schedules and other related activities to produce maximum yield on farm
- Observes animals to detect *oestrus*, illness, injury and growth rate
- Attends to animals during birth of offspring to minimise injury and provide for after-care services
- Provides transportation for livestock and supplies
- Establishes grazing pastures/forage availability
- Selects and matches animals for breeding
- Breeds or arranges for artificial insemination/embryo transfer of animals to obtain desired characteristics in offspring
- Detects and treats illness and injury in livestock and ensures treatment by **Veterinarian** when necessary
- Trains, advises and assists **Livestock Farm Workers** in performance of tasks such as branding, tattooing and tagging of animals, preparation of feed and supplements, castration, and detection and treatment of diseases
- Arranges for marketing of animals
- Maintains cost and operation records.

RELATED TITLES

Cattle Farmer – Dairy/Beef

Goat Farmer

Pig Farmer

Sheep Farmer

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

CSEC/GCE O-Level including Mathematics, English Language. Advanced training in animal care and handling.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; manipulating;
Education and Training Development:	Forms 4 & 5, CSEC/GCE O-Level;
Special Vocational Preparation:	Over 1 year, up to and including 2 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;.
Interests:	Plants and animals; business detail;
Physical Demands:	Medium work, lifting, carrying; stooping, crouching; reaching, use of hands and fingers, feeling, strong grip, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within, 0.5 metres, colour vision; standing, walking;
Environmental Conditions:	Inside and outside, daytime, nights, working around people; wet; noise; slippery surfaces, risk of bodily injury/loss, risk of occupational diseases; odours, dirt, glare.

6121.15 ARTIFICIAL INSEMINATION TECHNICIAN

Collects semen and inseminates livestock to improve production:

- Collects semen for artificial insemination using artificial vagina or collection cup
- Assists laboratory staff in the preparation, evaluation, extension, storage and freezing of semen
- Packs semen in appropriate containers for field use
- Prepares for insemination process by reviewing breeding records, examining animals and selecting suitable semen
- Inseminates animal using depository equipment
- Advises farmers on animal care practices as necessary to increase likelihood of conception
- Collects and transfer embryos in cattle and buffalo
- Prepares service certificates and receipts and collects fees
- Prepares records and written reports.

RELATED TITLES

Artificial Insemination Technician I/II

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary School Leaving Certificate and three to six months' experience in Artificial Insemination. A valid drivers permit is required.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; communicating with people to convey or exchange information; manipulating;
Education and Training	
Development:	Post-primary, Forms 1,2,3;
Special Vocational	
Preparation:	Over 3 months, up to and including 6 months;
Temperaments:	Evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to comprehend and effectively use language; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals;
Physical Demands:	Light to medium work, lifting, carrying, pushing, pulling; stooping, crouching; reaching, use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime; wet; slippery surfaces, risk of bodily injury/loss, risk of occupational diseases; odours, dust, dirt, glare.

6121.22 DAIRY TECHNICIAN

Monitors quality of milk sent from farm to distributor and advises on dairy husbandry methods and techniques to improve quality of milk:

- Visits farms at milking time, advises on and demonstrates correct milking techniques, sanitation, milk shed routine and feeding to improve quality of milk
- Monitors results of quality-control laboratory tests to identify farms which repeatedly produce poor-quality milk
- Liaises with extension staff to learn new dairy production practices
- Collects milk samples from individual cows for laboratory analysis
- Conducts simple on-site tests on samples to detect *mastitis*
- Submits monthly status reports on condition of farms and remedial action taken.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary School Leaving Certificate and an approved Dairy Technician's course or any equivalent combination of experience and training.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; communicating with people to convey or exchange information; handling;
Education and Training	
Development:	Post-primary, Forms 1,2,3;
Special Vocational	
Preparation:	Over 6 months, up to and including a year;
Temperaments:	Dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria;

Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals;
Physical Demands:	Light work; use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces, noxious substances; odours, dirt.

6122.10 POULTRY FARMER

Operates farm to raise poultry for meat and eggs:

- Determines broiler and egg production according to contract or market demand and farm capacity
- Purchases or requisitions purchase of chicks, feed, medication, farm supplies and equipment
- Installs and maintains feeding, watering, heating and lighting systems
- Plans and monitors feeding and lighting schedules to control poultry growth, development and laying
- Supervises or performs other farming operations such as preparing pens to receive poultry, vaccinating poultry, collecting, cleaning, grading and packing eggs, culling flock, repairing farm buildings and equipment, and maintaining grounds
- Plans and monitors feeding and lighting schedules to control poultry growth, development and laying
- Observes feed and water intake and physical condition of birds for indications of disease
- Arranges with processors or wholesalers and hatcheries for sale of produce or sells produce directly to individual customers
- Hires and supervises employees
- Maintains and analyses production and accounting records to plan future production

May transport chickens and eggs.

RELATED TITLES

Poultry Farmer, Broiler Production

Poultry Farmer, Egg Production

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary education, training courses in poultry production from relevant institutions and two years' experience in poultry farming.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; manipulating;
Education and Training Development:	Post-primary, Forms 1,2,3;
Special Vocational Preparation:	Over 2 years, up to and including 3 years;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions;

Aptitudes:	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals; business detail;
Physical Demands:	Light to medium work, lifting, carrying, pushing, pulling; climbing, balancing; stooping, crouching, raising of arms; reaching, use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, colour vision, night vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, nights, working around people; wet; risk of bodily injury/loss; noxious substances; fumes, odours, dust, dirt, toxic conditions.

6123.11 BEEKEEPER / Apiarist

Rears bees to produce honey and other bee products:

- Builds or assembles beehives and hive stands, using hand tools and machinery
- Prepares and inserts honeycomb frames
- Purchases and/or forms starter colonies of bees and introduces bees into hives
- Calms bees in hive, using smoker, to gain access
- Inspects hives for pests and diseases, for signs of swarming, to verify presence and laying of queen bee and to monitor rate of honey production
- Removes pests and treats diseased hives
- Destroys superfluous queen bee cells to prevent swarming
- Inserts accessory equipment such as queen excluder, hive divider and honey-feeder as needed for proper colony management
- Adds additional frames and honey-boxes as production increases
- Removes full frames from hive, uncaps honeycombs, extracts honey using centrifugal extractor and places honey in settling tanks
- Bottles honey for retail sale or forwards honey in bulk to wholesale distributor
- Collects royal jelly, pollen and beeswax and produces queen bees and starter colonies for sale or personal use
- Maintains compound of apiary
- Keeps records relevant to planning of future honey production.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary education and at least one year on the job training.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; carrying out assigned work; manipulating;
Education and Training Development:	Post-primary, Forms 1,2,3;
Special Vocational Preparation:	Over 1 year, up to and including 2 years;

Temperaments:	Performing under stress; working alone and in isolation from others; Evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals;
Physical Demands:	Medium work, lifting, carrying, stooping, crouching, raising of arms; use of hands and fingers, writing; talking-ordinary, other sounds; hearing-ordinary conversation, other sounds; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working alone; risk of bodily injury/loss; fumes; smoke.

6129.11 WILDLIFE FARMER/Wildlife Breeder

Rears wild animals in captivity for sale:

- Constructs cages, pens, ponds and troughs for animals
- Obtains breeding stock by purchasing from and exchanging with other **Wildlife Farmers** or by hunting and trapping
- Cultivates or collects fruits and vegetable matter from the wild for feed
- Feeds and waters animals
- Cleans housing and surrounding areas
- Liaises with **Veterinarian** to discuss animals' health and administers medication as recommended
- Isolates newly acquired, sick and pregnant animals to acclimatize and provide special treatment
- Monitors females' care of newborn and young
- Sells animals for food or as breeding stock
- Maintains cost and breeding records.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary school education and at least six months' experience.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; communicating with people to convey or exchange information; manipulating;
Education and Training Development:	Primary school;
Special Vocational Preparation:	Over 6 months, up to and including a year;
Temperaments:	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals; business detail;
Physical Demands:	Light to medium work, lifting, carrying; stooping, crouching; use of hands; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary; standing, walking, sitting;

Environmental Conditions: Inside and outside, daytime; wet; slippery surfaces, risk of bodily injury/loss, risk of occupational diseases, noxious substances; odours, dirt, glare.

6130.01 FARM SUPERVISOR

Supervises and coordinates activities of workers engaged in raising of crops, rearing of livestock and related work:

- Confers with owner or manager of establishment to obtain guidelines on work programme
- Issues instructions to and supervises workers engaged in activities such as cultivating, irrigation and harvesting crops and caring for livestock
- Directs weed- and pest-control spraying operations
- Visits *holdings* to monitor work performance, appraises conditions and checks workers' output to ensure conformity with accepted practices and safety standards
- Communicates with owner, manager or other supervisors on work and personnel requirements and problems
- Trains new workers in performance of duties
- Compiles records relating to work accomplishments, individual worker performance and sale of farm products
- Responds to emergencies on farm and coordinates activities to deal with same

May hire and pay workers and perform duties of **FARM FOREMAN**.

RELATED TITLES

Crop Farm Supervisor
Livestock Supervisor
Supervisor, Agricultural Services

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Diploma in Agriculture and two years' as a crop/livestock farmer.

OCCUPATIONAL PROFILE

Data/People/Things: Planning and directing work activities; directing work-related activities of a group of workers; handling;

Education and Training

Development: Awards not equivalent to university first degrees, obtained at technical institute, training school, similar institution;

Special Vocational

Preparation:

Temperaments:

Over 3 years, up to and including 5 years;

Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; dealing with people beyond giving and receiving instructions; evaluation of information using subjective or judgmental criteria;

Aptitudes:

Ability to comprehend and effectively use language; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;

Interests:	Plants and animals, business detail;
Physical Demands:	Light to medium work; stooping; use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation; vision ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, nights; noise, slippery surfaces, risk of bodily injury/loss, risk of occupational diseases, noxious substances; odours, dust, dirt, glare.

6130.02 FARM FOREMAN

Supervises gangs of workers engaged in activities on agricultural *holding*:

- Receives instructions from superior on tasks to be performed by gangs and issues necessary instructions to gang workers
- Monitors activities to ensure that tasks are completed and work is properly done
- Controls the issuing and use of chemicals by workers
- Advises workers on, and ensures compliance with the use of safety gears
- Examines field and measures work performed, using rod or tape
- Inspects livestock to ensure proper tending by subordinates
- Records workers' names, tasks completed and working time for submission to superior

May perform duties of workers supervised.

RELATED TITLES

Cultivation Foreman
Livestock Foreman

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary education and six months' on the job training and at least one year experience in the position of Farm Worker.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; directing work-related activities of a group of workers; handling;
Education and Training	
Development:	Post-primary, Forms 1,2,3;
Special Vocational Preparation:	Over 2 years, up to and including 3 years;
Temperaments:	Evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals;
Physical Demands:	Light to medium work, lifting, carrying; stooping, kneeling; reaching, use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity beyond 6 metres; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces, risk of bodily injury/loss; risk of occupational diseases; noxious substances; odours, dust, dirt, toxic conditions, glare.

6130.10 FARMER, MIXED FARMING

Operates farm to raise crops and livestock:

- Appraises market, weather conditions, size and location of farm to determine type and quantity of crops to be cultivated and livestock to be raised
- Selects and purchases planting material, livestock feed, chemicals, machinery, equipment and other supplies
- Directs and supervises or performs farming operations such as preparing land, cultivating and harvesting crops and raising livestock
- Breeds or arranges for artificial insemination/embryo transfer of animals to obtain desired characteristics in offspring
- Markets produce and livestock
- Arranges for maintenance of machinery, equipment, and farm buildings
- Hires, trains and discharges workers and meets with worker representatives where necessary to settle grievances
- Maintains production, financial and other records.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Secondary education, training in livestock and crop farming from approved institution and at least three years' experience in mixed farming.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; manipulating;
Education and Training Development:	Forms 4 & 5, CSEC/GCE O-Level;
Special Vocational Preparation:	Over 2 years, up to and including 3 years;
Temperaments:	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details /differences in verbal/tabular material; ability to \move and work with hands easily and skillfully;
Interests:	Plants and animals, business details;
Physical Demands:	Medium work; lifting, carrying, pushing, pulling; stooping, crouching, raising of arms; reaching, use of hands and fingers, strong grip, writing; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, acuity beyond 6 metres, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, nights, working around people; wet; slippery surfaces, risk of bodily injury/loss, risk of occupational diseases, noxious substances; fumes, odours, dust, dirt, toxic conditions, glare.

6130.11 SCHOOL-FARM ATTENDANT

Cares for crops and livestock on school farm and demonstrates basic techniques to students:

- Unlocks and secures farm buildings at beginning and end of day

- Tends livestock and cleans and scrubs pens
- Cultivates, collects and stores grass for animal feed
- Tends vegetable crops and fruit plants in nursery garden by watering, mulching and applying fertilisers, pesticides and other chemical solutions when necessary
- Demonstrates farm-related skills to students as directed by superior, such as digging of drains, making of seed-boxes, preparation of grow boxes, operation of agricultural tools and equipment and application of chemical
- Issues tools to students and receives and examines same after use
- Distributes chemicals under instructions from superior
- Checks, cleans and lubricates agricultural tools and equipment prior to storage if necessary
- Maintains inventory of stock, checks supplies and recommends replenishment when necessary
- Reports mishaps and irregularities to superior
- Handles limited production sales
- Keeps buildings, drains and surrounding areas in clean and sanitary condition.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary School Leaving Certificate and six to eighteen months' experience in agricultural work.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; communicating with people to convey or exchange information; manipulating;
Education and Training Development:	Post-primary, Forms 1,2,3;
Special Vocational Preparation:	Over one year, up to and including 2 years;
Temperaments :	Doing things only under specific instructions;
Aptitudes :	Ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests :	Plants and animals;
Physical Demands :	Medium to heavy work, lifting, carrying, pushing, pulling; stooping, kneeling, raising of arms; reaching, use of hands and fingers, feeling, strong grip, writing; talking-ordinary, colour vision; hearing-ordinary conversation, other sounds; vision-ordinary; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces, noxious substances, mechanical hazards; fumes, odours, dust, dirt, toxic conditions, glare.

6210. 01 FOREST PLANTATION OVERSEER

Supervises gangs of workers engaged in planting, tending and clearing forest plantations or performing logging operations:

- Issues instructions to gang workers and indicate task to be performed
- Monitors activities to ensure that work is properly done and checks completed work by measuring area cleared or counting felled, planted, or tended trees
- Records workers' names and tasks completed for submission to superior
- Responds to emergency calls and supervises suppression of forest fires.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary school education and considerable experience in the position of Woodsman .

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers; handling;
Education and Training	
Development:	Primary school;
Special Vocational	
Preparation:	Over 3 years, up to and including 5 years;
Temperaments:	Dealing with people beyond giving and receiving instructions; Evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material;
Interests:	Plants and animals;
Physical Demands:	Light to medium work; crouching; use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity beyond 6 metres; standing, walking, sitting; good bodily coordination;
Environmental Conditions:	Outside, daytime, nights, working around people; wet, humidity; slippery surfaces, risk of bodily injury/loss, burns; dust, dirt, glare.

6210.11 FOREST RANGER

Patrols forest plantations and natural forested areas to ensure conformity to conservation regulations:

- Patrols forest reserve to inspect boundaries, assists with investigation of encroachments and ensures conformity to regulations
- Visits forested plantations and natural forest to examine, measure, stamp and conduct sale of timber
- Assist in overseeing reforestation and infrastructure works
- Prepares forms for issuance of licences permitting cutting and removal of forest products from state lands
- Visits sawmills to inspect stock, examine records and query breaches of regulations
- Assists in suppressing forest fires
- Oversees activities at recreational facilities to ensure proper maintenance and conformity to conservation regulations.

RELATED TITLES:

Forest Ranger I/II

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

CSEC/GCE O-Levels including Mathematics and English Language. A pass in the Civil Service entry exam for Forests Rangers is required and on the job training.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; communicating with people to convey or exchange information; handling;
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Education and Training**Development:**

Forms 4 & 5, CSEC/GCE O-Level;

Special Vocational**Preparation:**

Over 3 months, up to and including 6 months;

Temperaments:

Dealing with people beyond giving and receiving instructions; performing under stress; evaluation of information using judgmental criteria;

Aptitudes:

Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;

Interests:

Plants and animals;

Physical Demands:

Medium work, lifting; climbing, balancing; stooping, crouching, raising of arms; reaching, use of hands, strong grip, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, field of vision; standing, walking, sitting;

Environmental Conditions:

Inside and outside, daytime, nights, working alone, working around people; wet, humidity; slippery surfaces, risk of bodily injury/loss; dust, dirt, glare.

6221.11 FISH FARMER/Fish Breeder/Fish Hatchery Operator

Breeds, raises and sells fish for consumption or display:

- Prepares aquaculture facilities such as concrete or plastic tanks, excavated earthen ponds or glass aquariums to be used as breeding, nursery and growing areas
- Maintains ponds and aquariums by draining and cleaning them and fallows earthen ponds
- Regulates water conditions to suit fish by aging water or adding suitable chemicals and fertilizer
- Places aquatic plants, tiles or other material for deposit of eggs
- Stocks facilities with fry or fingerlings or with selected *brood stock*
- Monitors spawning and separates eggs or young from *brood stock*
- Observes growth and transfers fish to other facilities to provide more adequate space and fresh water
- Provides supplemental food according to stages of growth, adding medication to prevent disease
- Culls poor quality specimens
- Places fish in holding ponds and aquariums for display and sale
- Sells fish on premises or at other outlet
- Purchases supplies and equipment
- Installs and maintains artificial aeration and filtration systems
- Destroys predators such as alligators in outdoor ponds
- Maintains records to establish returns on investment

May collect wild spawn and hatch them under controlled conditions.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Secondary education and at least one year experience rearing fish.

OCCUPATIONAL PROFILE

Data/People/Things:	Examining and evaluating data; communicating with people to convey or exchange information; manipulating;
Education and Training Development:	Forms 4 & 5, CSEC/GCE O-Level;
Special Vocational Preparation:	Over 1 year, up to and including 2 years;
Temperaments:	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details /differences in verbal/tabular material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals, business details;
Physical Demands:	Light to medium work, lifting, carrying, pulling, throwing; stooping, crouching, raising of arms; reaching, use of hands and fingers, feeling; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking;
Environmental Conditions:	Inside and outside, daytime, working alone, working around people; wet; slippery surfaces, risk of bodily injury/loss, risk of disability conditions; dirt, glare.

6222.11 FILLET NET FISHERMAN/ Net Fisherman

Catches fish as member of fishing crew on board boat, using fillet net:

- Loads equipment and supplies such as net, engine, gasoline, oil and life jackets onto boat prior to going to sea
- Steers boat to fishing grounds, releases net manually and attaches lanterns simultaneously at special points for safety and identification purposes
- Tests net periodically to determine weight of catch
- Hauls net into boat and empties catch into storage containers
- Off-loads, sorts and sells catch on shore or at fishing depot
- Performs minor boat maintenance such as painting and caulking of leaks
- Assembles and repairs fishing nets, using hand tools.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary education and one to three months' on the job training working with fillet nets.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; communicating with people to convey or exchange information; manipulating;
Education and Training Development:	Post-primary, Forms 1,2,3;
Special Vocational Preparation:	Over 30 days, up to and including 3 months;

Temperaments:	Repetitive or short-cycle work; performing under stress; evaluation of information using subjective or judgmental criteria; ability to work as part of a team/group;
Aptitudes:	Ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals; mechanical work;
Physical Demands:	Very heavy work, lifting, carrying, pulling, throwing; balancing; stooping, crouching; reaching, use of hands, strong grip; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity beyond 6 metres, depth perception, field of vision, colour vision, night vision; standing, walking, sitting; good bodily coordination;
Environmental Conditions:	Outside, daytime, nights, working around people; wet; slippery surfaces, risk of bodily injury/loss, radiant energy; dirt, glare.

6222.12 SEINE FISHERMAN

Catches fish as member of fishing crew, using seine:

- Observes sea from land to determine presence and movement of school of fish
- Loads seine onto fishing boat and drags boat into water
- Ties one end of seine to stake on land or leaves it with crew members on shore
- Rows or drives boat out to sea, releasing seine around school of fish
- Takes other end of seine to land and pulls seine to shore
- Off-loads, sorts and/or stows catch
- Sells catch on shore, along roadside or at market
- Performs minor repairs to boat, seine and other deck equipment.

RELATED TITLES

Boatman
Leadman
Oarman
Ropeman
Skipper, Fishing Boat

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary education and at least one month experience with seine fishing.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; communicating with people to convey or exchange information; manipulating;
Education and Training Development:	Post-primary, Forms 1,2,3;
Special Vocational Preparation:	Over 30 days, up to and including 3 months;
Temperaments:	Repetitive or short-cycle work; ability to work as part of a team/group;
Aptitudes:	Ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully;

Interests:	Plants and animals; mechanical work;
Physical Demands:	Very heavy work, lifting, carrying, pushing, pulling, throwing; balancing; stooping, crouching; reaching, use of hands and fingers, strong grip; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity beyond 6 metres, depth perception, field of vision; standing, walking, sitting;
Environmental Conditions:	Outside, daytime, working around people; wet; slippery surfaces; risk of bodily injury/loss; dirt, glare.

6222.13 FISH POT FISHERMAN

Catches fish and lobster, using pots:

- Constructs fish pots, using wire, nails, bamboo, shears, hammer and pliers
- Steers boat to fishing area, using knowledge of current, tides and fishing ground and anchors boat
- Checks landmarks and flow of current visually to set and facilitate easy retrieval of pots
- Lowers pots to sea bed
- Raises pots out of sea, using lines and hooks
- Removes fish or lobster from pots and stows them in ice containers
- Offloads, sorts and sells catch on shore
- Performs minor repairs such as painting boat and corking leaks.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary education and one month experience working with various designs of fish pots.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; communicating with people to convey or exchange information; manipulating;
Education and Training Development:	Post-primary, Forms 1,2,3;
Special Vocational Preparation:	Over 30 days, up to and including 3 months;
Temperaments:	Repetitive or short-cycle work; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to visualise objects in three dimensions from drawings/representations; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals; mechanical;
Physical Demands:	Medium to heavy work, lifting, carrying, pulling; stooping, crouching; reaching, use of hands, strong grip; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity beyond 6 metres, depth perception, field of vision, colour vision, night vision; standing, walking, sitting;
Environmental Conditions:	Outside, daytime, nights, working around people; wet; slippery surfaces risk of bodily injury/loss; dirt, glare.

6222.14 LINE FISHERMAN

Catches fish for commercial purposes, using lines, hooks and bait:

- Loads equipment and supplies such as lantern, bailer, club, torchlight, foodstuff and life jackets manually onto fishing boat, prior to trip
- Catches bait, using cast net, or purchases bait
- Lays out line and attaches hooks and other fittings
- Steers boat to fishing ground, baits hooks, throws line into water and adjusts depth depending on feeding pattern of fish sought
- Trolls line or anchors boat and holds line to catch fish
- Hauls line onto boat deck and raises fish into boat using *gaff*
- Removes fish from hook and stows catch in ice box
- Offloads, sorts and sells fish on shore or at fish depot
- Performs minor equipment repair such as replacing hooks, caulking leaks and painting boat.

RELATED TITLES

Live Bait Fisherman

Trolling Fisherman

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary education and one month experience line fishing.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; communicating with people to convey or exchange information; manipulating;
Education and Training	
Development:	Post-primary, Forms 1,2,3;
Special Vocational	
Preparation:	Over 30 days, up to and including 3 months;
Temperaments:	Repetitive or short-cycle work; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals; mechanical;
Physical Demands:	Heavy to very heavy work, lifting, carrying, pulling, throwing; balancing; stooping, crouching; reaching, use of hands and fingers, strong grip; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity beyond 6 metres, depth perception, field of vision, colour vision, night vision; standing, walking, sitting;
Environmental Conditions:	Outside, daytime, nights, working around people; wet; slippery surfaces risk of bodily injury/loss, risk of occupational diseases, dirt, glare.

6222.15 UNDERWATER FISHERMAN

Dives underwater to catch fish for commercial purposes:

- Checks aqualung gauges visually to ascertain pressure in air tanks

- Loads tanks and other supplies and equipment such as gaff, oil, snorkels, gas and foodstuff onto fishing boat
- Steers boat to fishing area, using knowledge of currents and tides, and utilising landmarks as guides
- Anchors boat, dons scuba-diving equipment, protective gloves and goggles, and dives off boat to appropriate depth
- Spears fish and octopuses using harpoon gun, collects conchs from seabed, pries lobsters from hiding-places and puts catch in bag
- Checks air in tanks periodically during dive to ensure adequate supply
- Sells items caught to individuals and business places or in market-place.

EDUCATION/TRAINING/EXPERIENCE REQUIREMENTS:

Primary School Education and up to six (6) months training

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; communicating with people to convey or exchange information; manipulating;
Education and Training Development:	Primary School;
Special Vocational Preparation:	Over 3 months, up to and including 6 months;
Temperaments:	Repetitive or short-cycle work; performing under stress; evaluation of information using subjective or judgmental criteria.
Aptitudes:	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully; ability to move body members with good coordination;
Interests:	Plants and animals; mechanical work;
Physical Demands:	Medium work, lifting, carrying, pushing, pulling, (use of hand/arm and/or foot/leg to operate and control machinery or equipment); climbing; stooping, crouching, raising of arms; reaching, use of hands, strong grip; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity beyond 6 metres, depth perception, field of vision, colour vision; standing, walking, swimming; good bodily coordination;
Environmental Conditions:	Outside, underwater, daytime, working alone, working around people; wet; slippery surfaces, risk of bodily injury/loss; fumes, odours, dirt, glare.

6222.16 CRAB CATCHER

Catches crabs from swamps, beaches and rivers by performing any combination of the following duties:

- Snatches running crabs with hand or pins crabs with knife and stores them in bag
- Locates crab holes, inserts wire and hooks and withdraws crabs from hole
- Sets home-made traps near mouth of crab-hole, leaves traps overnight, inspects traps and removes catch accordingly
- Catches crabs in river, using baited line, lifts and scoops up catch with net and bags catch

- Washes crabs to remove mud by holding them under running water or by shaking bag in water
- Secures crabs and ties them into bunches for sale to public or **Market Vendors**
- Maintains safety gear and work aids as applicable

May operate boat to navigate swamp or river.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary school education, one month training in swamp or river environment.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; communicating with people to convey or exchange information; manipulating;
Education and Training Development:	Primary school;
Special Vocational Preparation:	Short demonstration /training lasting up to 30 days;
Temperaments:	Repetitive or short-cycle work; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to move and work with hands easily and skillfully; ability to move body members with good coordination;
Interests:	Plants and animals;
Physical Demands:	Medium work, lifting, carrying; stooping, kneeling, crouching; reaching, use of hands and fingers; vision-ordinary, acuity beyond six metres, depth perception, colour vision, night vision; standing, walking, running;
Environmental Conditions:	Outside, daytime, nights, working alone; wet; slippery surfaces, risk of bodily injury/loss, risk of occupational diseases; odours, dirt, mist.

6222.17 OYSTER GATHERER

Gathers oysters from swamp at low tide:

- Inspects boat and effects necessary repairs to ensure worthiness of vessel
- Enters swamp at low tide by boat or on foot and gains access to mangrove bank
- Locates oysters attached to mangrove roots, cuts off relevant part of root, prises oysters off with knife and places them in bucket or bag
- Moves to other mangrove banks as necessary
- Washes oysters in preparation for sale
- Maintains safety gear, work aids, boat and engine as applicable.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary education with at least six months' training in a swamp environment.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; communicating with people to convey or exchange information; handling;
Education and Training Development:	Post-primary, Forms 1,2,3;

Special Vocational**Preparation:****Temperaments:****Aptitudes:****Interests:****Physical Demands:****Environmental Conditions:**

Short demonstration /training lasting up to 6 months;

Repetitive or short-cycle work; evaluation of information using subjective or judgmental criteria;

Ability to move and work with hands easily and skillfully; ability to move body members with good coordination;

Plants and animals;

Medium work, lifting, carrying; balancing; stooping, kneeling, crouching, raising of arms; reaching, use of hands and fingers; talking-ordinary; hearing-ordinary conversation; vision-ordinary, depth perception, colour vision; standing, walking, sitting;

Outside, daytime, working alone, working around people; wet; slippery surfaces, risk of bodily injury/loss; odours, dirt, mist.

6223.10 DECKHAND FISHERMAN

Operates fishing gear on board trawler at sea to haul in fish and shrimp:

- Manipulates fishing gear on board vessel to release nets for catching fish and shrimp
- Retrieves nets and removes catch from nets
- Handles, cleans and stores catches into fish hold
- Stands watch during the day or night as instructed by the captain
- Off-loads catch and other related items on port
- Repairs nets or fishing equipment when necessary
- Performs general maintenance duties pertaining to fishing vessel as instructed by supervisor.

RELATED TITLES

Cook-Fisherman

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary education and at least three years' experience in trawler fishing and repairing nets. A sound knowledge of the principles of trawl fishing is required.

OCCUPATIONAL PROFILE**Data/People/Things:**

Observing for similarities and/or differences; carrying out assigned work; manipulating;

Education and Training**Development:**

Post-primary, Forms 1,2,3;

Special Vocational**Preparation:****Temperaments:**

Repetitive or short-cycle work; performing under stress;

Aptitudes:

Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully;

Interests:

Plants and animals; mechanical work;

Physical Demands:	Medium work, lifting, carrying, controls; climbing, balancing; talking-ordinary; stooping, crouching, raising of arms; reaching, use of hands, strong grip; hearing-ordinary conversation; vision-ordinary, acuity beyond 6 metres, acuity within 0.5 metres, depth perception, field of vision, night vision; standing, walking;
Environmental Conditions:	Inside and outside, heights, confined space, daytime, nights, working around people; wet; noise, vibration; slippery surfaces, risk of bodily injury/loss, mechanical hazards; glare.

6224.11 HUNTER

Hunts and traps wild animals for sale:

- Selects time and location of hunt according to characteristics of animal being sought
- Determines food, equipment and other requirements for hunt and capture of animals
- Inspects equipment and ensures readiness of hunting dogs
- Hunts animals as member of team or individually, employing one or more of the following methods
- Attracts animals by calling them or constructs scaffold in tree and awaits animal
- Pursues animal by tracking it with dogs or by following its trail
- Smokes or digs animal out of hiding as required
- Traps animals by means of baited traps, removes captured prey and resets or relocates traps
- Kills, skins and guts game
- Maintains and repairs hunting and trapping equipment
- Attends to hunting dogs

May use or sell game as breeding stock, train dogs for hunting and construct traps.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary school education and at least three months' training. A firearm licence is required if guns are being used.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; carrying out assigned work; manipulating;
Education and Training	
Development:	Primary school;
Special Vocational Preparation:	Over 3 months, up to and including 6 months;
Temperaments:	Evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to move and work with hands easily and skillfully; ability to move body members with good coordination;
Interests:	Plants and animals;
Physical Demands:	Light to medium work, lifting, carrying; climbing, balancing; stooping, kneeling, crouching, crawling, raising of arms; reaching, use of hands and fingers, strong grip; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, acuity beyond 6 metres, depth perception, field of vision; standing, walking, sitting; good bodily coordination; smelling;

Environmental Conditions: Outside, heights, daytime, nights, working alone, working around people; wet; slippery surfaces, risk of bodily injury/loss, risk of occupational diseases, burns, explosives; dust, dirt, mist, poor lighting.

6310.10 SUBSISTENCE CROP FARMER

Grows and harvest crops in order to provide food, shelter and a minimum of cash income:

- Determines type of crop for cultivation based on traditional practices
- Prepares soil and sows plants, tends and harvests field crops
- Fetches water and stores for later use
- Carries out some processing of produce
- Builds and maintains houses and other shelters
- Inspects crop during growth, identifies disease or replanting needs and takes corrective action
- Decides on crop rotation, irrigation method and required chemical applications for crop
- Selects and arranges for purchase of supplies such as seeds or young plants, chemicals, agricultural equipment
- Sells some produce at local markets or elsewhere.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary school education and at least six months' practical experience.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; communicating with people to convey or exchange information; manipulating;
Education and Training Development:	Primary school;
Special Vocational Preparation:	Over 6 months, up to and including 1 year;
Temperaments :	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals; business detail;
Physical Demands:	Medium to heavy work; lifting, carrying, pushing, pulling, stooping, crouching; use of hands and fingers, strong grip; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres; standing, walking;
Environmental Conditions:	Inside and outside, daytime, working alone; wet; risk of bodily injury/loss, risk of occupational diseases, noxious substances, mechanical hazards, radiant energy; fumes, dust, dirt, glare.

6320.10 SUBSISTENCE LIVESTOCK FARMER

Breeds, raises and tends livestock in order to provide food, shelter and a minimum of cash income:

- Acquires livestock, supplies and equipment to carry out farm operations
- Coordinates breeding, feeding and milking schedules
- Attends to animals during birth of offspring
- Detects and treats illness and injury in livestock
- Cultivates pastures and manages grazing of lands and monitors feed and water supplies
- Slaughters and skins animals and prepares meat or skin for use or sale
- Provides transportation for livestock and supplies.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary school education and at least six months' experience.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; communicating with people to convey or exchange information; manipulating;
Education and Training Development:	Primary school;
Special Vocational Preparation:	Over 6 months, up to and including 1 year;
Temperaments:	Variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to comprehend and effectively use language; ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals; business detail;
Physical Demands:	Medium to heavy work, lifting, carrying; stooping, crouching; reaching, use of hands and fingers, feeling, strong grip, writing; talking-ordinary; hearing-ordinary conversation; other sounds; vision-ordinary, acuity within 0.5 metres, colour vision; standing, walking;
Environmental Conditions:	Inside and outside, daytime, nights, working around people; wet; noise; slippery surfaces, risk of bodily injury/loss, risk of occupational diseases; noxious substances; odours, dirt, glare.

6330.10 SUBSISTENCE MIXED CROP AND LIVESTOCK FARMERS

Grows and harvest field or tree and shrub crops and breeds and raises animals in order to provide food, shelter and a minimum of cash income:

- Performs duties of **SUBSISTENCE CROP FARMER** and **SUBSISTENCE LIVESTOCK FARMER** to grow and harvest field or tree and shrub crops and to breed and raise animals for meat and other products
- Sells some products at local markets or elsewhere.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary school education and at least six months' training.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; communicating with people to convey or exchange information; manipulating;
Education and Training	
Development:	Primary school;
Special Vocational	
Preparation:	Over 6 months, up to and including 1 year;
Temperaments:	Direction, control and planning of an activity or project; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details in objects or in pictorial/graphic material; ability to perceive pertinent details /differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals, business detail;
Physical Demands:	Medium to heavy work; stooping, crouching; use of hands, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, working around people; wet; slippery surfaces, risk of bodily injury/loss, risk of occupational diseases, noxious substances, mechanical hazards, radiant energy; fumes, dust, dirt, glare.

6340.11 SUBSISTENCE FISHER

Catches a large variety of species, but generally only those relatively close to shore or in fresh waters:

- Stores or carries out some processing of catch
- Uses fishing techniques such as rod and tackle, arrows and harpoons, throw nets and drag nets, and traditional fishing boats
- Performs minor equipment repair such as fishes and gathers various forms of aquatic life in order to provide food, shelter and a minimum of cash income
- Replacing hooks, caulking leaks and painting boat
- Sells catch at seaside or roadside.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary school education and at least one month experience in fishing.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; communicating with people to convey or exchange information; manipulating.
Education and Training	
Development:	Primary school;
Special Vocational	
Preparation:	Over 30 days, up to and including 3 months;

Temperaments:	Repetitive or short-cycle work; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals; mechanical;
Physical Demands:	Heavy to very heavy work, lifting, carrying, pulling, throwing; balancing; stooping, crouching; reaching, use of hands and fingers, strong grip; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity beyond 6 metres, depth perception, field of vision, colour vision, night vision; standing, walking, sitting;
Environmental Conditions:	Outside, daytime, nights, working around people; wet; slippery surfaces, risk of bodily injury/loss, risk of occupational diseases, dirt, glare.

6340.12 SUBSISTENCE HUNTER

Hunts and traps animals in order to provide food, shelter and a minimum of cash income:

- Selects time and location of hunt according to characteristics of animal being sought
- Inspects equipment and ensures readiness of hunting dogs
- Pursues animal by tracking it with dogs or by following its trail
- Traps animals by means of baited traps, removes captured prey and resets or relocates traps
- Kills, skins and guts game
- Maintains and repairs hunting and trapping equipment.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary school education and at least three months' training.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; communicating with people to convey or exchange information; manipulating;
Education and Training Development:	Primary school;
Special Vocational Preparation:	Over 3 months, up to and including 6 months;
Temperaments:	Evaluation of information using subjective or judgmental criteria
Aptitudes:	Ability to move and work with hands easily and skillfully; ability to move body members with good coordination;
Interests:	Plants and animals;
Physical Demands:	Light to medium work, lifting, carrying; climbing, balancing; stooping, kneeling, crouching, crawling, raising of arms; reaching, use of hands and fingers, strong grip; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary, acuity beyond 6 metres, depth perception, field of vision; standing, walking, sitting; good bodily coordination; smelling;
Environmental Conditions:	Outside, heights, daytime, nights, working alone, working around people; wet; slippery surfaces, risk of bodily injury/loss, risk of occupational diseases; dust, dirt, mist, poor lighting.

6340.13 SUBSISTENCE GATHERER

Gathers wild fruits, medicinal and other plants, in order to provide food, shelter and a minimum of cash income:

- Identifies wildfruits, medicinal and decorative plants for consumption or decorative purposes
- Harvests herbs and plants on seasonal basis
- Ensures that plants are not gathered from areas that may have been recently sprayed
- Processes plants by washing, drying, stripping and storing
- Sells fruit, plants and related products.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary school education with at least one month experience.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; communicating with people to convey or exchange information; handling;
Education and Training Development:	Primary school;
Special Vocational Preparation:	Over 30 days, up to and including 3 months;
Temperaments:	Repetitive or short-cycle work; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to move and work with hands easily and skillfully; ability to move body members with good coordination;
Interests:	Plants and animals;
Physical Demands:	Light work, lifting, carrying; climbing, balancing; stooping, kneeling, crouching, raising of arms; reaching, use of hands and fingers; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Outside, daytime, working alone, working around people; wet; slippery surfaces, risk of bodily injury/loss; odours, dirt.

8167.11 CHARGEHAND-OPERATOR, SUGAR PROCESSING

Oversees and assists in activities of workers at sugar factory by performing any combination of the following duties:

- Oversees off-loading of sugar cane at factory and allocation of cane to milling section
- Monitors cutting and grinding of cane and subsequent processing operations in sugar manufacture
- Notes weight of cane process per hour to determine whether production levels are met
- Operates machinery in cases of illness or absenteeism among subordinates
- Supervises washing and cleaning of equipment and examines equipment visually for defects
- Resolves work problems or reports to superior
- Prepares logs and reports on factory operations for submission to superior.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Five CSEC/GCE O-Levels including Physics and Chemistry with at least three years' experience in sugar processing operations.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; directing work-related activities of a group of workers; tending;
Education and Training	
Development:	Forms 4 & 5 CSEC/GCE O-Level;
Special Vocational Preparation:	Over 3 years, up to and including 5 years;
Temperaments:	Repetitive or short-cycle work; ability to work as part of a team or group;
Aptitudes:	Ability to move and work with hands easily and skillfully;
Interests:	Industrial work;
Physical Demands:	Light work; climbing; stooping, crouching, raising of arms; reaching, use of hands and fingers, writing; talking – ordinary; hearing – ordinary conversation; vision – ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside, shifts/on call, working around people; noise, vibration; slippery surfaces, risk of bodily injury/loss, mechanical hazards, moving objects; odours, dust, dirt.

8167.12 PAN BOILER, SUGAR PROCESSING

Operates and monitors vacuum pans to boil syrup to required consistency:

- Ascertains type of sugar to be boiled
- Turns valves to produce vacuum in pan and fill pan to appropriate level with syrup drawn from suction box, or JAVA SUGAR drawn from receivers
- Opens steam valves to admit steam into pans to boil syrup or java to required density
- Monitors steam pressure, temperature and vacuum gauges to ensure maintenance of specified levels
- Draws sample periodically, using proof stick, places sample on glass slides and examines sample visually or by touch to determine whether crystal formation is of desired standard
- Turns valves to introduce molasses or syrup into pan and dilute syrup with water, or transfers limited quantity of syrup into additional pan or java into receivers, and repeats boiling process to control grain formation
- Monitors boiling process, testing grain size at intervals and presents sample to superior for approval when satisfactory grain size is attained
- Strikes pan by manipulating levers and valves to break vacuum seal and shut off steam
- Opens valve to discharge *massecuite* into crystallisers for further processing
- Records relevant data.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Three CSEC/GCE O-Level subjects including Chemistry and at least one year on-the-job training.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; taking instructions/ carrying out assigned work, helping; operating-controlling;
Education and Training	
Development:	Forms 4 & 5, CSEC/GCE O-Level;
Special Vocational Preparation:	Over 1 year, up to and including 2 years;

Temperaments:	Repetitive or short-cycle work; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;
Aptitudes:	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to move and work with hands easily and skillfully;
Interests:	Industrial work;
Physical Demands:	Light work; stooping; reaching, use of hands and fingers, feeling, strong grip, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, acuity within 0.5 metres; standing, walking, sitting;
Environmental Conditions:	Inside, daytime, nights, working around people; heat, noise; burns.

8167.13 CARBONATION WORKER, SUGAR PROCESSING

Operates carbonation machine and equipment used in refining sugar-cane liquor:

- Reads gauges in control room to ensure that system is operating efficiently
- Obtains periodic test results detailing *pH levels* of sugar-cane liquor from laboratory personnel, and opens or closes valves to raise or reduce level of carbon dioxide entering liquor, according to test results
- Observes level of liquor in filter press to ensure free movement of liquor through system and closes valves to filter press in cases of chokes
- Opens sludge valves, signals to **Pump Attendant, Sugar Processing** to obtain water for washing filter press and opens sluicing valve when washing operation is completed to refill filter press and continue processing of liquor
- Informs **Pump Attendant, Sugar Processing** when liquor is ready for pumping to fine-liquor press
- Monitors gas gauges and visits boiler house in case of pressure failure, ascertains cause of failure and takes corrective action
- Records stoppages due to power failure or equipment breakdowns and forwards report to engineering personnel
- Performs minor maintenance and repair work.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Five CSEC or GCE O-Level subjects including Physics, Chemistry and Biology with at least one year on-the-job-training.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; carrying out assigned work; tending;
Education and Training Development:	Forms 4 & 5, CSEC/GCE O-Level;
Special Vocational Preparation:	Over 1 year, up to and including 2 years;
Temperaments:	Repetitive or short-cycle work; doing things only under specific instructions; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to move and work with hands easily and skillfully;
Interests:	Industrial work;

Physical Demands:	Light work; stooping; use of hands, strong grip, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary, depth perception; standing, walking, sitting;
Environmental Conditions:	Inside, shifts/on call, working around people; humidity; noise; moving objects; odours.

8167.14 EVAPORATOR ATTENDANT, SUGAR PROCESSING

Operates evaporators to remove excess water from sugar-cane juice to obtain syrup of required consistency:

- Ensures that evaporator is under vacuum and opens valve to admit cane juice from clarifier
- Checks level of juice in evaporator to determine amount of steam needed for boiling
- Opens steam valve to permit steam to enter evaporator
- Reads gauges to note vacuum and steam pressure levels and temperature of juice
- Checks consistency of juice through inspection windows to determine optimum level of steam pressure and adjusts controls as necessary
- Regulates flow of cold water to cool hot vapours released at top of evaporator
- Opens valves to transfer boiling juice from one evaporator to another for reboiling
- Releases final syrup into storage tank for further processing
- Carries out routine maintenance of evaporators.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary education with at least one year on the job-training.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; carrying out assigned work; tending;
Education and Training Development:	Post-primary, Forms 1,2,3;
Special Vocational Preparation:	Over 1 year, up to and including 2 years;
Temperaments:	Repetitive or short-cycle work; doing things only under specific instruction; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to move and work with hands easily and skillfully;
Interests:	Industrial work;
Physical Demands:	Light work; climbing; stooping, crouching, raising of arms; use of hands, strong grip; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting;
Environmental Conditions:	Inside, shifts/on call, working alone; noise; slippery surfaces, risk of bodily injury/loss, burns; odours, dust.

8167.15 JUICE-SCALE OPERATOR, SUGAR PROCESSING

Controls juice pump to pump cane juice from *juice scale* to liming tank:

- Performs duties similar to those of **PUMP ATTENDANT, SUGAR PROCESSING**
- Reads juice scale and *pH meter* to determine quantity and acidity of juice entering liming tank
- Regulates valves to add lime and other chemicals to cane juice in tank to keep *pH level* within specified parameters
- Reports wastage due to overflow and leaks in equipment and faulty operation to superior
- Tidies work area
- Performs minor maintenance and repair work

May assist in clearing choked pump by removing crushed cane from clogged valves.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Five CSEC/GCE O-Level subjects including Physics and Chemistry. One year on-the-job-training.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; carrying out assigned work; tending;
Education and Training	
Development:	Forms 4 & 5, CSEC/GCE O-Level;
Special Vocational	
Preparation:	Over 6 months up to and including 1 year;
Temperaments:	Repetitive or short-cycle work; doing things only under specific instructions; evaluation of information using subjective or judgmental criteria; precise attainment of set limits, tolerances or standards;
Aptitudes:	Ability to move and work with hands easily and skillfully;
Interests:	Industrial work;
Physical Demands:	Light work; stooping; use of hands; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting;
Environmental Conditions:	Inside, shifts/on call, working around people; wet, humidity; noise; slippery surfaces; odours, dirt.

8167.16 ATTENDANT, SUGAR PROCESSING

Assists in sugar-processing operations by performing any combination of the following duties:

- Feeds mill with sugar-cane and controls movement of sugar-cane along feeder to cane crusher
- Loads bagasse from storage area onto conveyor for transfer to boilers
- Removes and loads bagasse from upper end of carrier bed to prevent clogging of exit
- Tends rotary filters to ensure adequate filtering of cane juice
- Stirs mixture of juice and bagasse in storage tank to prevent clogging of tank
- Opens and closes valves to control flow of sugar solution from storage bin to melting tank
- Mixes lime to desired *brix*, monitors functioning of machines in liming-tank section and reports malfunctions to appropriate personnel
- Regulates flow of sugar from pans into crystallisers and curing baskets and cleans bed of mill to allow uninterrupted flow of bagasse.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

At least 3 CSEC/GCE O-Levels subject with one science subject and on-the-job lasting up to thirty (30) days.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; taking instructions/carrying out assigned work; manipulating;
Education and Training Development:	CSEC/GCE O-Levels;
Special Vocational Preparation:	Short demonstration /training lasting up to 30 days;
Temperaments:	Repetitive or short-cycle work; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully;
Interests:	Industrial work;
Physical Demands:	Light work, lifting, pushing; stooping; reaching, use of hands; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking;
Environmental Conditions:	Inside, daytime, heights, working around people; wet; noise; slippery surfaces, risk of bodily injury/loss, mechanical hazards; odours, dust, dirt.

9211.11 TREE AND SHRUB CROP FARM WORKER/Estate Worker

Assists in operation of tree and shrub crop farming by performing any combination of the following duties:

- Prepares land by digging holes and drains as required
- Plants tree and shrub crops such as cocoa, coffee, coconut, citrus, and other plants to provide windbreak, shade and/or short-term food crop
- Cutlasses, brush cuts or sprays areas around and between trees to control weeds and mulches around trees
- Mixes and applies appropriate chemicals manually or with mist-blower to fertilise trees and control diseases or insect pests
- Prunes trees to direct growth and yield
- Reaps crop, cracks pods and nuts and removes beans and/or kernels where appropriate
- Bags crops for transport to sales outlet or processing plant and conveys beans to processing plant, using vehicular or animal transport where applicable
- Loads dryer with kernels and unloads dryer on completion of drying process
- Places cocoa beans in *fermentary* and turns beans at specified intervals
- Cleans beans by removing foreign matter
- Dries and polishes cocoa and coffee beans
- Bags, weighs and loads processed produce into truck or container for shipment
- Maintains fields by cleaning drains, attending to hedges, and pruning or removing trees
- Maintains farm structures and agricultural equipment and machinery

May *hull* coffee beans, using *mechanical huller*, and grade cocoa and coffee beans, using grading machine.

RELATED TITLES

Farm Worker, Citrus Estate
Farm Worker, Cocoa Estate
Farm Worker, Coconut Estate
Farm Worker, Coffee Estate

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary School Education and three months' on the job training.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; taking instructions/ carrying out assigned work; manipulating;
Education and Training Development:	Primary school;
Special Vocational Preparation:	Over 30 days, up to and including 3 months;
Temperaments:	Repetitive or short-cycle work; doing things only under specific instructions;
Aptitudes:	Ability to perceive pertinent details in objects or in pictorial/graphic material ;ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully; ability to move body members with good coordination;
Interests:	Plants and animals;
Physical Demands:	Medium to heavy work, lifting, carrying; climbing; stooping, crouching, raising of arms; reaching, use of hands and fingers, strong grip; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking;
Environmental Conditions:	Inside and outside, daytime; heat; wet, humidity; risk of bodily injury/loss, noxious substances, mechanical hazards, moving objects, radiant energy; odours, dust, dirt, toxic conditions, mist, glare.

9211.12 FIELD CROP FARM WORKER

Assists in operation of field crop farm by performing any combination of the following duties:

- Prepares land for cultivation by or digging or cleaning drains, brush-cutting, making banks and weeding using manual or mechanical methods
- Plants seedlings or cuttings or *broadcasts* seeds in fields and covers them with soil
- Treats soil and plants with chemicals to eradicate pests and weeds and encourage plant growth
- Weeds and moulds plants, using garden tools
- Erects supports such as stakes and trellises to keep fruit off soil
- Activates irrigation system or waters plants using watering can
- Inspects crops to determine maturity

- Harvests crops manually or mechanically
- Sorts, grades and packs produce for sale or processing as required
- Loads and unloads produce and farm supplies at warehouse and/or market place
- Assists in the maintenance of farm equipment.

RELATED TITLES

Rice Farm Worker

Sugar-Cane Farm Worker

Vegetable Farm Worker

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary school education with a minimum of five months' experience in farming environment.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; carrying out assigned work; manipulating;
Education and Training	
Development:	Primary;
Special Vocational Preparation:	Over 3 months, up to and including 6 months;
Temperaments:	Repetitive or short-cycle work; doing things only under specific Instructions;
Aptitudes:	Ability to perceive pertinent details in objects or in pictorial/graphic material ; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers ; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals;
Physical Demands:	Medium to heavy work, lifting, carrying, pulling, pushing; stooping, crouching, raising of arms; reaching, use of hands and fingers; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking;
Environmental Conditions:	Outside, daytime, working around people; wet, humidity; slippery surfaces, risk of bodily injury/loss, noxious substances; fumes, odours, dust, dirt, toxic conditions, glare.

9212.11 LIVESTOCK FARM WORKER

Assists with work on livestock farm by performing any combination of the following duties:

- Mixes feed and supplements
- Waters and feeds animals and herds them to and from pasture as required
- Observes animals and notifies **Livestock Farmer** of signs of *oestrus*, illness and injury
- Isolates diseased animals for treatment
- Applies medication to injuries and sprays animals with medication when necessary
- Vaccinates animals by placing vaccine in drinking water or feed or by injecting animal as directed
- Assists in administering supportive veterinary treatment such as deworming, dehorning and castration
- Prepares animals for mating and assists in delivery of offspring
- Washes and sterilises milking equipment and udders of animal prior to milking and milks animal

- manually, or using automatic equipment
- Collects and tests animal milk samples for diseases such as mastitis
- Observes performance of machine and reaction of animal during milking and records milk production on record card
- Transfers milk to storage tank manually or by operating pump of automatic milker
- Fumigates, washes and cleans pens and holding areas, using chemicals, brooms and shovels
- Repairs fences, gates and pens to maintain them in acceptable condition
- Plants, cultivates and harvests feed and supplements and maintains pasture by fertilising it and removing unwanted vegetation
- Transports animals in need of specialist care and attention to the veterinary clinic
- Performs marketing duties such as weighing animals and herding them onto trucks

May operate auxiliary farm machinery.

RELATED TITLES

Dairy Farm Worker

Sheep and Goat Farm Worker

Pig Farm Worker

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary school education and two months' on-the-job training and some experience in animal husbandry.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; carrying out assigned work; manipulating;
Education and Training	
Development:	Post-primary, Forms 1,2,3;
Special Vocational	
Preparation:	Over 30 days, up to and including 3 months;
Temperaments:	Repetitive or short-cycle work; variety and change in terms of often changing from one task to another of a different nature without loss of efficiency or composure; doing things only under specific instructions;
Aptitudes:	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals;
Physical Demands:	Medium to heavy work, lifting, carrying, pushing, pulling; climbing, balancing; stooping, crouching, raising of arms; reaching, use of hands and fingers, feeling, strong grip; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary; standing, walking;
Environmental Conditions:	Outside, daytime, nights; wet; slippery surfaces, risk of occupational diseases, noxious substances; fumes, odours, dust, dirt, toxic conditions, glare.

9212.12 POULTRY FARM WORKER

Assists with operation of poultry farm by performing any combination of the following duties:

- Cleans and disinfects poultry pens, cages and equipment in preparation for receipt of chicks

- Spreads and turns *litter* on floor to maximize absorbency capacity
- Assists in installation of feeding, watering, heating and lighting systems and laying boxes
- Removes chicks from shipping trays and places in poultry pens or cages
- Cleans, fills and adjusts feeders and water containers
- Vaccinates poultry by placing medication in drinking water or by injection
- Transfers poultry to other pens or cages for laying
- Removes sick or dead birds from flock
- Cleans nest boxes, places nesting material in same and replenishes supplies of material as necessary
- Collects eggs from boxes or cages, cleans and grades eggs by hand or using cleaning and grading machine and packs eggs in cartons and boxes
- Inspects pens and equipment daily and conducts repairs, when required, using hand tools
- Maintains premises by sweeping, hosing, spraying and cutlassing or burning grass
- Records daily intake of feed, water and medication and daily mortality of poultry

May drive and maintain tractor to transport chicks, eggs, feed, equipment and other supplies.

RELATED TITLES

Laying-House Poultry Workers

Pullet-House Poultry Workers

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary education and 2 months' on-the-job training.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; carrying out assigned work; manipulating;
Education and Training	
Development:	Post-primary, Forms 1,2,3;
Special Vocational	
Preparation:	Over 30 days, up to and including 3 months;
Temperaments:	Repetitive or short-cycle work; doing things only under specific instructions;
Aptitudes:	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals;
Physical Demands:	Light to heavy work, lifting, carrying, pulling; stooping, crouching, raising of arms; use of hands and fingers, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking;
Environmental Conditions:	Outside, daytime; wet; risk of bodily injury/loss, noxious substances, electrical hazards; fumes, odours, dust, dirt, toxic conditions.

9212.13 POULTRY HATCHERY WORKER/ Hatchery Attendant

Assists with operation of poultry hatchery by performing combinations of the following duties:

- Places eggs in incubator trays, identifying and setting aside cracked and dirty eggs and ensuring that eggs are right side up

- Inserts trays in trolleys and wheels trolleys into incubators
- Places eggs in hatching trays and trolleys after specified period and wheels trolleys into hatchers
- Removes trolleys from hatchers after specific period and transfers hatched chicks to boxes
- Trims and sears beaks of chicks to prevent injury, using debeaking machine
- Sanitises and disinfects chick boxes, hatchery equipment and general work area
- Disposes of unhatched eggs and shells.

RELATED TITLES

Poultry Debeaker

Poultry Vaccinator

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary education and one to three months' on-the-job experience.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; carrying out assigned work; manipulating;
Education and Training	
Development:	Post-primary, Forms 1, 2, 3;
Special Vocational Preparation:	Over 30 days, up to and including 3 months;
Temperaments:	Doing things only under specific instructions;
Aptitudes:	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move fingers and manipulate small objects rapidly/accurately; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals; mechanical work;
Physical Demands:	Medium work, lifting, carrying, pushing, pulling; stooping, crouching, raising of arms; reaching, use of hands and fingers, feeling; talking-ordinary; hearing-ordinary conversation; vision-ordinary standing, walking;
Environmental Conditions:	Inside, daytime, working around people; wet; noxious substances fumes, odours, dirt.

9213.12 ASSISTANT SCHOOL FARM ATTENDANT

Performs manual agricultural work in cultivation of school farm:

- Weeds and tills land using garden tools and applies fertilizer to soil preparatory to cultivation
- Demonstrates garden beds from crop cultivation using agricultural tools
- Digs trenches around beds to facilitate drainage
- Tends crops cultivated by students, watering and applying fertilizer, pesticides and fungicides as required
- Demonstrates correct methods of application and use of safety equipment during application of chemical solutions and other dangerous substances
- Cleans and oils agricultural tools such as hand forks and shovels and replaces on shelves after use
- Cleans, tidies and secures agricultural shed
- Report mishaps and irregularities to superior officer

- Cultivates food crops such as vegetables, ground provisions and fruit in keeping with instructions from supervisors

May feed, water and tether animals and clean livestock pens and farm buildings.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary School Leaving Certificate and some experience in routine agricultural work.

OCCUPATIONAL PROFILE

Data/People/Things:	Transcribing, entering or posting data; carrying out assigned work; manipulating;
Education and Training	
Development:	Post-primary, Forms 1, 2, and 3;
Special Vocational Preparation:	6 months, up to and including a year;
Temperaments:	Repetitive or short-cycle work; doing things under specific instructions; working alone and instructions from other; evaluation of information using subjective or judgmental criteria; teamwork;
Aptitudes:	Ability to perceive pertinent details/differences in verbal/tabular material; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals;
Physical Demands:	Light to medium work, lifting, carrying, pushing, pulling; kneeling, raising of arms; reaching, use of hands, use of fingers; feeling, strong grip, writing; talking-ordinary conversation; vision-ordinary, acuity beyond 6 metres; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime; wet; slippery surfaces, risk of bodily injury/loss, toxic/noxious substances, mechanical hazard; odours, dirt, toxic conditions.

9213.13 AGRICULTURAL LABOURER

Assists in crop and animal agricultural operations by performing any combination of the following duties with the use of hand tools and simple equipment:

- Lifts, carries, stacks and handles materials and objects, using simple hand tools and equipment such as shovel and wheelbarrow
- Waters, weeds, tends harvest crops
- Cultivates, fertilises and harvests crops
- Grades, sorts and packs produce into containers
- Attends to farm animals and keeps quarters clean
- Cuts grass to provide fodder and bedding for animals
- Monitors livestock and reports on their condition
- Performs minor repairs to farm buildings, fences, roads and traces.

RELATED TITLES

Fertilizer Applicator, Hand

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary school education and one month on-the-job-training.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; carrying out assigned work; manipulating;
Education and Training	
Development:	Primary school;
Special Vocational Preparation:	Short demonstration /training lasting up to 30 days;
Temperaments:	Repetitive or short-cycle work; doing things only under specific instructions;
Aptitudes:	Ability to perceive pertinent details in objects or pictorial/graphic material ; ability to move and work with hands easily and skillfully;
Interests:	Plants and animals; mechanical;
Physical Demands:	Medium to heavy work, lifting, carrying, pushing, pulling; climbing; stooping, crouching, raising of arms; reaching, use of hands, strong grip; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking;
Environmental Conditions:	Outside, daytime, working around people; wet; risk of bodily injury/loss, risk of occupational diseases, noxious substances, mechanical hazards, moving objects; fumes, odours, dust, dirt, toxic conditions, glare.

9214.12 NURSERY WORKER

Buds, grafts and cultivates horticultural and food-crop plants in nursery:

- Tends stock plants in field by cleaning, weeding, removing unwanted offshoots, watering and spraying to ensure adequate supply of cuttings
- Examines plants visually to verify proper growth of *scions* for use in nursery
- Fills nursery bag or box with soil, fertiliser, peat moss and/or sand
- Sows seed or inserts cuttings from stock plant into bag or box and places in nursery
- Cuts scion from tree, using budding knife
- Selects stock plant and trims leaves to accommodate bud
- Inserts bud cut from scion into slot along outer layer of stock plant
- Secures bud with tape or plastic wrap to prevent penetration of water

May be designated according to area of specialization, for example:

Budder Grafter

Propagator

Sprayer

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary education with at least one year experience working with plants.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; carrying out assigned work; handling;
Education and Training	
Development:	Post-primary, Forms 1,2,3;

Special Vocational**Preparation:****Temperaments:****Aptitudes:****Interests:****Physical Demands:****Environmental Conditions:**

Over 1 year, up to and including 2 years;

Repetitive or short-cycle work;

Ability to move fingers and manipulates small objects rapidly/accurately; ability to move and work with hands easily and skillfully; ability to perceive subtle colour distinctions;

Plants and animals;

Light to medium work, lifting, carrying; stooping, crouching, raising of arms; reaching, use of hands and fingers, strong grip; talking-ordinary; hearing-ordinary conversation; vision-ordinary, within 0.5 metres; standing, walking, sitting;

Inside and outside, daytime, working alone, working around people; wet; risk of bodily injury/loss; risk of occupational diseases; noxious substances; fumes, odours, dust, dirt, toxic conditions.

9215.11 WOODSMAN

Plants, cultivates and tends forest plantations:

- Carries plants from transport vehicle to plantation site
- Measures distances to determine location for planting each tree, digs holes according to specifications, inserts plant and refills hole with displaced soil
- Brush-cuts weed around growing plants and thins and tends plants as necessary to encourage proper growth
- Replaces damaged and dead plants to ensure maximum utilization of land
- Cuts survey lines and fire traces through plantations and forested areas and clears land boundaries for identification purposes
- Responds to emergency calls and assists with suppression of forest fires.

RELATED TITLES

Woodsman I/II

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary school education and on-the-job-training.

OCCUPATIONAL PROFILE**Data/People/Things:**

Observing for similarities and/or differences; carrying out assigned work; manipulating;

Education and Training**Development:**

Primary school;

Special Vocational**Preparation:****Temperaments:**

Short demonstration /training lasting up to 30 days;

Repetitive or short-cycle work; doing things only under specific Instructions;

Aptitudes:

Ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers; ability to move and work with hands easily and skillfully;

Interests:

Plants and animals;

Physical Demands:	Medium work, lifting, carrying, pushing, pulling; climbing; stooping, kneeling, crouching; reaching, use of hands and fingers; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking; good bodily coordination;
Environmental Conditions:	Outside, daytime, nights, working around people; wet, humidity; slippery surfaces, risk of bodily injury/loss, burns; dust, dirt, glare.

9215.12 CHAIN-SAW OPERATOR, FORESTRY

Fells trees and saws felled trees into logs:

- Examines tree for characteristics such as twists and heavy limb growth and determines direction of fall of tree
- Clears vegetation and debris from base of tree and escape route to minimise chances of personal injury
- Starts chain-saw and saws cuts in tree trunk
- Drives wedges behind saw to prevent binding of saw and start tree falling
- Stops engine of saw as tree tips, pulls cutting bar from cut and runs to predetermined location to avoid injury from falling limbs of tree and flying debris
- Trims tops of trees with assistance of helper
- Cuts trees into log lengths
- Maintains chain-saw.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Primary school education, practical experience in the area of chain-saw operating and on-the-job-training.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; carrying out assigned work; manipulating;
Education and Training Development:	Primary school;
Special Vocational Preparation:	Short demonstration/training lasting up to 30 days;
Temperaments:	Repetitive or short-cycle work; performing under stress; evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perceive pertinent details in objects or in pictorial/graphic material; ability to move and work with hands easily and skillfully; ability to move body members with good coordination;
Interests:	Plants and animals;
Physical Demands:	Heavy to very heavy work, lifting, carrying, pushing, pulling, use of hand/arm and/or foot/leg to operate and control machinery or equipment; raising of arms; reaching, use of hands and fingers, strong grip; talking-ordinary; hearing-ordinary conversation, other sounds; vision-ordinary; standing, walking, running; good bodily coordination;
Environmental Conditions:	Outside, daytime, working around people; wet, humidity; noise, vibration; risk of bodily injury/loss, mechanical hazards, moving objects; dust, dirt, glare.

9215.13 LORRY LOADER, FORESTRY

Assists in logging operations by performing any combination of the following duties:

- Attaches skidder cable to enable transport
- Piles logs for road transportation, using crowbars and other hand tools
- Assists with loading logs onto vehicles for transportation to mill
- Prunes trees and measures and/or debarks log.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary School Leaving Certificate. On-the-job training.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; carrying out assigned work; manipulating;
Education and Training	
Development:	Post-primary, Forms 1,2,3;
Special Vocational	
Preparation:	Short demonstration /training lasting up to 30 days;
Temperaments:	Repetitive or short-cycle work; doing things only under specific instructions;
Aptitudes:	Ability to move and work with hands easily and skillfully;
Interests:	Plants and animals;
Physical Demands:	Heavy work, lifting, pushing, pulling; talking-ordinary; hearing-ordinary conversation; vision-ordinary, field of vision; standing, walking;
Environmental Conditions:	Outside, daytime; slippery surfaces, risk of bodily injury/loss; dust, dirt, glare.

9216.11 FISH-FARM LABOURER

Collects, harvests and distributes fish and maintains ponds and banks:

- Collects spawns, juveniles and brood stock from ponds and rivers and stocks farm ponds
- Harvests fish and transfers to holding tank
- Sorts fish manually, according to gender
- Repairs fish-nets as required
- Drains, prepares and floods ponds
- Maintains ponds, banks and surrounding areas, using cleaning equipment.

REQUIRED EDUCATION/TRAINING/EXPERIENCE:

Post-primary School Leaving Certificate and at least one to three months' experience in fish farming.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; carrying out assigned work; manipulating;
Education and Training	
Development:	Post-primary, Forms 1,2,3;
Special Vocational	
Preparation:	Over 30 days, up to and including 3 months;

Temperaments:	Doing things only under specific instructions;
Aptitudes:	Ability to move and work with hands easily and skillfully; ability to make precise movements accurately and swiftly by coordinating eyes, hands and/or fingers;
Interests:	Plants and animals;
Physical Demands:	Medium work, lifting, carrying, pushing, pulling; stooping, crouching; reaching, use of hands, strong grip; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Outside, daytime, nights, working around people; wet; slippery surfaces; Risk of bodily injury/loss, dirt, mist.

9217.01 SUPERVISOR-FOREPERSON, AGRICULTURAL PRODUCE WAREHOUSE

Supervises and coordinates activities of workers engaged in receiving, sorting, grading and distributing agricultural produce:

- Controls receipt and distribution of produce at facility
- Indicates type and quantity of produce for handling
- Schedules sorting, packaging, storage and distribution activities and supervises subordinate staff to ensure efficient performance of duties
- Processes orders for delivery of produce, inspects samples of produce to verify quality and monitors delivery operations
- Prepares and submits periodic stock inventory and staff reports to superior
- Recommends personnel action such as dismissals and other disciplinary measures.

RELATED TITLES

Supervisor/Packing House

REQUIRED EDUCATION /TRAINING EXPERIENCE

CSEC /GCE O'Levels and one to two years' experience.

OCCUPATIONAL PROFILE

Data/People/Things:	Planning and directing work activities; directing work-related activities of a group of workers, handling;
Education and Training Development:	Forms 4 & 5 , CSEC /GCE O' Level;
Special Vocational Preparation:	Over 1 year, up to and including 2 years;
Temperaments:	Evaluation of information using subjective or judgmental criteria;
Aptitudes:	Ability to perform mathematical operations and process quickly and accurately; ability to perceive pertinent details/differences in verbal/tabular material;
Interest:	Business detail;
Physical Demands:	Light work; reaching, use of hands and fingers, feeling; strong grip, writing; talking-ordinary; hearing-ordinary conversation; vision-ordinary; standing, walking, sitting;
Environmental Conditions:	Inside and outside, daytime, cold, vibration, slippery surfaces.

9217.11 SORTER-PACKER, AGRICULTURAL PRODUCE

Sorts, grades and packs agricultural produce for storage and/or distribution:

- Feeds produce, such as fruits and vegetables onto conveyor belt or turntable and washes produce in preparation for packing
- Examines produce, sorting and grading items for quality, size and colour
- Removes and discards inferior produce
- Bunches, trims and ties produce as required and packs them into containers for storage or distribution
- Places filled containers on scales and calculates weight of produce
- Labels containers with relevant information such as date, type and quantity of produce and completes inventory record
- Stack containers on trolleys or in vehicles for transport

May assemble containers.

REQUIRED EDUCATION/ TRAINING/EXPERIENCE:

Post-primary School Leaving Certificate.

OCCUPATIONAL PROFILE

Data/People/Things:	Observing for similarities and/or differences; carrying out assigned work; handling;
Education and Training	
Development:	Post-primary, Forms 1,2,3;
Special Vocational Preparation:	Short demonstration /training lasting up to 30 days;
Temperaments:	Repetitive or short-cycle work;
Aptitudes:	Ability to move and work with hands easily and skillfully;
Interest:	Industrial work;
Physical Demands:	Light work to medium work, lifting, carrying, pushing, pulling; crouching, raising of arms; reaching, use of hands and fingers, strong grip; talking-ordinary; hearing-ordinary conversation; vision-ordinary, colour vision; standing, walking, sitting;
Environmental Conditions:	Inside, daytime; cold; wet; slippery surfaces, risk of bodily injury/loss; odours, dirt.

AGRICULTURE GLOSSARY

Aboretum - a place where trees are grown for study and display.

Accession - a group of related plant material from a single species which is collected at one time from a specific location.

Aqualung - a scuba diving equipment commonly referred to as a diving regulator or demand.

Brix - a scale of densities used in the sugar industry.

Broadcast - to scatter freely.

Broodstock, - are a group of mature individuals used in aquaculture for breeding purposes.

Candles - a method used to observe the growth and development of an embryo inside the egg with the use of a bright light source behind the egg to show details through the shell.

Cultivar - a variety of plant that has been produced by scientific breeding or selected intentionally and maintained through cultivation.

Fermentary - a place for storing the cocoa while the fermentation process goes on.

Gaff - a large iron hook attached to a pole or handle and used to land large fish.

Germplasm - a collection of genetic resources in the form of plants or seeds intended for use in breeding or conservation programmes.

Germplasm Accession - is the unit for storing germplasm of related plant material from a single species for the purpose of protecting rare plants outside of their native.

Histological - the study of the microscopic anatomy of cells and tissues of plants and animals.

Holdings - a single unit, in both technical and economic terms, operating under a single management, which produces agricultural products.

Hull - the dry outer covering of the coffee bean.

Juice Scale - an instrument used to weight the cane juice to know the output of sugar and molasses after the boiling process.

Mechanical Huller - machine used for removing the outer shell or coating of the coffee beans.

Hulling - removal of the outer covering of beans such as cocoa and coffee.

Inoculate (Animal) - to inject or introduce a serum, antigen, or a weakened form of a disease-producing pathogen into the body of an animal in order to create immunity to the disease.

Inoculate (Plant) - to graft by budding or implanting.

Inoculation - the act or an instance of inoculating, especially the introduction of an antigenic substance or vaccine into the body to produce immunity to a specific disease.

Massecuite - a mixture of sugar crystals and molasses.

Mastitis - an inflammation of tissue in one or both mammary glands inside the breast of the animal.

Morphological - a branch of biology that deals with the form and structure of animals and plants.

Nematodes - an eel-like animal resembling but not closely related to an earthworm. Most nematodes are minute – 1/50 of an inch to 1/4 of an inch long (0.5 to 6.5mm long) – but some that live in animals attain much greater lengths.

Oestral - relating to the regularly occurring period of sexual receptivity in most female mammals during which ovulation can take place.

Oestrus - a regularly occurring period of sexual receptivity in the female animal during which ovulation occurs and copulation can take place (animal in heat).

Oestrus - a regularly occurring period of sexual receptivity in most female mammals, except humans, during which ovulation occurs and copulation can take place.

pH Level - is the measure of hydrogen-ion concentration; the higher the pH reading, the more alkaline and oxygen rich the fluid is and the lower the pH reading, the more acidic and oxygen deprived the fluid is.

Phytosanitary - Pertains to the health of plants, especially freedom from pests and pathogens requiring quarantine.

Poultry litter - material used as bedding in poultry operations to render the floor more manageable.

Scion - a portion of a plant, usually a piece of young stem, which is inserted into a rooted stock in grafting.

Serology - the branch of science dealing with the measurement and characterization of antibodies, antigens, and other immunological substances in body fluids (serum) or even plants that are virus-infected.

Silvicultural - relating to the practice of controlling the establishment, growth, composition, health, and quality of forests to meet diverse needs and values.

Udder - baglike organ containing the mammary glands, characteristic of certain female mammals, such as cows, sheep, and goats.

ALPHABETICAL INDEX

The Alphabetical Index has been designed to reflect various types of titles. The same kind of type is used as that used to differentiate titles in the actual occupational descriptions. Base titles are in **BOLD-FACE, UPPER-CASE LETTERS**; alternate titles are in **Bold-Face, Upper/Lower Case Letters**; related titles are in Upper/Lower Case letters. Some titles listed in the Alphabetical Index, do not appear on occupational descriptions. Their six-digit code number refers to the description to which they are affiliated.

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		Sugar-Cane Farmer	6111.10
		Supervisor, Agricultural Services	6130.01
		SUPERVISOR-FOREPERSON, AGRICULTURAL-PRODUCE WAREHOUSE	9217.01
		SORTER-PACKER, AGRICULTURAL PRODUCE TECHNICAL INSTRUCTOR, AGRICULTURE AND FORESTRY	9217.11
		TISSUE CULTURE SPECIALIST	3610.11
		TREE AND SHRUB CROP FARM WORKER/Estate Worker	2131.22
		Tree and Shrub Crop Growers	9211.11
			6112
		TREE CROP GROWER	6112.10
		Trolling Fisherman	6222.14
		UNDERWATER FISHERMAN	6222.15
		University and Higher Education Teachers	2310
		UNIVERSITY LECTURER, FOOD AND AGRICULTURE/University	2310.12
		Vegetable Crop Farm Worker	9211.12
		Vegetable Farmer	6111.10
		VETERINARIAN	2250.10
		Veterinarians	2250
		Veterinary Assistant	3240.11
		VETERINARY OFFICER	2250.11
		VETERINARY PATHOLOGIST	2250.12
		VETERINARY PHYSIOLOGIST	2250.13
		Veterinary Public Health Assistant	3240.11
		Veterinary Technicians and Assistants	3240
		Vocational Education Associate	3610
		Professionals	
		VOCATIONAL EDUCATION TEACHER, AGRICULTURE/ Teacher III	2320.11
		Vocational Education Teachers	2320
		WILDLIFE BIOLOGIST	2131.12
		WILDLIFE FARMER/Wildlife Breeder	6129.11
		Woodsman I/II	9215.11
		WOODSMAN	9215.11

