Occupational Qualification Document						
Occupational Code	Qualification Title		NQF Level	Quality Council for Trades & Occupations		
132408	Occupational Certificate: Grain Depot Manager		5			
	Name	Email		Phone	Logo	
Development Quality Partner	AgriSETA	info@agriseta.co.za		(012) 301 5600	AgriSETA	
Assessment Quality Partner	AgriSETA	info@agriseta.co.za		(012) 301 5600	AgriSETA	

<del></del>	
DQP Representative Signature	Date

## **QUALIFICATION DETAILS**

Qualification Title: Occupational Certificate: Grain Depot Manager

Occupational Code: 132408

Quality Assuring Body: Quality Council for Trades and Occupations (QCTO)

Sub Framework: Occupational Qualifications Sub-Framework

Field: Field 01 - Agriculture and Nature Conservation

Subfield: Secondary Agriculture

NQF Level: 5 Credits: 229

Originator/Development Quality Partner (DQP): AgriSETA

Originating Provider/Assessment Quality Partner (AQP): AgriSETA

Qualification Type: Occupational Certificate

Registered qualifications and or learning programmes to be replaced:

National Diploma: Grain Handling Management, SAQA ID 14873, NQF L 5

### **RATIONALE**

Grain Depot Managers are employed by enterprises involved in handling, storage and distribution of grains and oilseeds as a service to farmers.

This qualification addresses the need to promote employment opportunities in the grain handling and storage industry as well as career progression for many employed in the industry.

The South African National Growth and Development Plan recognised the need to develop both rural areas as well as value adding opportunities in the agricultural sector. This curriculum supports this initiative as grain-handling facilities are mostly located in the rural areas of the country where employment and skills development opportunities are critical.

The majority of future development of grain processing operations as well as intensive farming operations will involve grain handling and storage facilities as a component of the infrastructure. This curriculum provides a standard for training of persons who will be tasked with the management or control of these grain storages or handling facilities

## **PURPOSE**

The purpose of this qualification is to prepare a learner to operate as a Grain Depot Manager

A Grain Depot Manager achieves operational efficiencies by monitoring, controlling and responding to operational variables, the utilisation of resources and the mechanical integrity of a bulk grain handling and storage unit.

A qualified learner will be able to:

- Manage and control the achievement of operational targets
- Lead and manage staff to ensure smooth business operations
- Manage and control the utilisation of operational resources
- Achieve grain handling and storage efficiency and quality standards by controlling unit operations
- Conduct grain and oilseed grading processes

## **RULES OF COMBINATION**

This qualification is made up of the following compulsory Knowledge, Practical Skills and Work Experience Modules:

### **Knowledge Modules:**

Total number of credits for Knowledge Modules: 76

#### **Practical Skill Modules:**

Total number of credits for Practical Skill Modules: 81

### **Work Experience Modules:**

Total number of credits for Work Experience Modules: 72

### **ENTRY REQUIREMENTS**

NQF Level 4

### EXIT LEVEL OUTCOMES AND ASSOCIATED ASSESSMENT CRITERIA

#### **Exit Level Outcome 1**

Manage and control the achievement of operational targets

## Associated Assessment Criteria

- Planning, organising, directing and controlling resources management functions are executed in accordance with workplace requirements
- Resource scheduling, planning and control practices are applied in accordance with workplace requirements
- The achievement of set operational targets are monitored and reproted on in accordance with workplace requirements
- Problems are analysed and decisions and formulated by using a structured approach
- Client relations are management in accordance with workplace requirements
- Preventative maintenance management and inspections are executed in accordance with workplace requirements

### **Exit Level Outcome 2**

Lead and manage staff to ensure smooth business operations

### Associated Assessment Criteria

- Fair labour practices, procedure and general codes of conduct are applied as established by legislative and regulatory standards
- Team leadership and good interpersonal dynamics are applied as related team results achieved
- Performance measurement principles and practices are executed in accordance with workplace requirements
- The principles of setting clear, realistic and measurable work objectives are applied in accordance with workplace requirements
- Work schedules indicating the tasks to be performed are drafted and communicated in accordance with workplace requirements

- Written and verbal instructions are issued in accordance with workplace requirements
- Performance management concepts and standards (including Developing performance standards, Measuring performance and isolating causes of poor performance, Performance interviews and feedback, Rewarding good performance and correcting poor performance) are applied in accordance with workplace standards
- Leadership theories and concepts (including Leadership vs management, Leadership styles, Team leadership theories, models and styles, Task vs relationship orientations in teams, Creating high performance teams) are applied in accordance with workplace standards

#### **Exit Level Outcome 3**

Manage and control the utilisation of operational resources

#### Associated Assessment Criteria

- Production data and reports are analysed, trends recognised and interpreted in view of addressing production demands
- Operational reports are comprehensive and accurate as required by workplace standards and reporting procedures
- Grain handling technology operation is controlled and problems addressed to accepted industry standards
- Demonstrate an understanding of communication theory
- Budgeting concepts (including operational budgeting principles, types of budgets, budget cost items) are applied in accordance with workplace requirements
- Operational cost are monitired and controlled in accordance with workplace requirements
- Financial reporting duties (including monthly operating budget reports, cost control and variance reports, cost of handling and storage, recording and processing financial documents) are executed in accordance with workplace requirements
- Stock management duties (including availability of different quality grains and oilseeds, niche market requirements/customer needs, stock control) are executed in accordance with workplace requirements
- Appropriate writing styles, format and language is used when producing production reports and presenting information
- Business correspondence (including written instructions, memoranda, electronic messages, completing of prescribed documents and records) is maintained in accordance with workplace standards and requirements

## **Exit Level Outcome 4**

Achieve grain handling and storage efficiency and quality standards by controlling unit operations

## Associated Assessment Criteria

- The efficient and productive use of resources is achieved in terms of production targets, operational capacities and quality standards
- Facility and asset utilisation practices and principles are applied in terms of accepted industry practices
- Storage conditions and pest control operations are monitored and controlled in accordance with accepted industry practices
- Grain handling facility and equipment inspections and remedial actions are performed to ensure efficiencies and quality standards

- Occupational health and safety standards are controlled and enforced as related to a risk assessment requirements
- Operational practices and quality standards are controlled as related to risk assessment requirements
- · Grain sampling and grading are monitored and applied in terms of accepted industry practices
- Emergency response procedures are maintained in terms of risks associated with the handling and storage of grains and oilseed
- Pest control principles and concepts (including Primary and secondary grain pests, Principles of pest
  management, Pest harbourage and infestation signs, Pest monitoring techniques) are applied in
  accordaance wirh workplace standards
- Work practices, events or situations that could create unsafe working conditions are identified and responded to in accordance with workplace standards

# **Integrated Assessment Focus Area 5**

Conduct grain and oilseed grading processes

### Associated Assessment Criteria

- Valid and reliable grain and oilseed grading results are assured by applying standard prescribed sampling practices
- Regulated grading standards and requirements are complied with and documented
- · Food safety standards and practices are adhered to in accordance with standard procedures
- Grading equipment and consumables are selected and used in accordance with standard procedures
- Work is planned and execute in a structured manner to ensure that the pace of work meets accepted turnaround times.
- The grading results obtained and the interpretation of the results is accurate in accordance with regulatory standards.
- Grading documentation are accurately completed and administrative requirements are met in accordance with standard procedures

## INTERNATIONAL COMPARABILITY

A desktop study was conducted on qualifications and programs, which exist in other countries, that are comparable to this qualification. The comparability exercise focused on countries that have formal qualification registration frameworks or an industry representative body that promotes professional development in the occupation.

The United States of America, Germany and Australia were selected based on comparable learning programs and qualifications

#### **United States of America**

Training program offered by the The Grain Elevator and Processing Society (GEAPS) was specifically selected, as this is regarded by the South African industry as the worldwide leaders regarding grain handling and storage training. The South Africa representative body of the grain storage industry, AgriBiz Grain, is also a member of The Grain Elevator and Processing Society

GEAPS offers distance education programmes for grain silo personnel in conjunction with the Kansas State University. The program is aligned with core competencies and specified as specific credential bearing programs as follows:

### The Credential in Grain Operations Management (CGOM)

GEAPS 500: Introduction to Grain Operations or GEAPS 501 – Management Basics for Grain Facility

Supervisors

GEAPS 510: Grain Facilities Planning and Design I

GEAPS 520: Grain Quality Management

GEAPS 530: Quality Management Systems for Bulk Materials Handling Operations

GEAPS 540: Entry Level Safety

GEAPS 550: Materials Handling I

A specific unit of learning available from GEAPS addresses training in grain grading in accordance with the standards set by the USA Department of Agriculture through the Federal Grain Inspection Service of the USA as follows:

• GEAPS 522: FGIS Grain Inspection Orientation

This standard is a specific component of various of the credential programs offered by GEAPS

## Specialist Credentials

GEAPS and K-State also offer specialist credentials for people interested in focusing on a specific grainoperations skill area. To earn a specialist credential, you must first earn the Credential in Grain Operations Management. Each of the Specialist Credentials requires four additional courses, in addition to the six courses required for the CGOM.

## Specialist in Grain Quality Management

GEAPS 521: Aeration System Design and Fan Operational Management

GEAPS 522: FGIS Grain Inspection Orientation

GEAPS 524: Grain Drying

GEAPS 525: Management of Pests in Stored Grain

## Specialist in Grain Handling Equipment Management

GEAPS 551: Materials Handling II

GEAPS 552: Materials Handling III

GEAPS 554: Grain Elevator Equipment Maintenance

GEAPS 555: Advanced and Preventive Maintenance for Grain Facilities: Conveyance Equipment

## Specialist in Property and Casualty Risk Management

GEAPS 541: Developing an Effective Safety Culture

GEAPS 542: Electrical Safety for Grain Facilities

GEAPS 544: Preventing and Responding to Grain Dust Explosions

GEAPS 545: Grain Entrapment: Causes, Prevention and Rescue

## Master Credential in Grain Operations Management (MCGOM)

The Master Credential in Grain Operations Management is earned by completing the CGOM and all three specialist credentials. It is the highest form of training currently available in the industry.

## Germany

A tree year vocational qualification is offered in Germany for Process Technologist for the Milling and Grain industry.

Acting on behalf of the Federal Government, the Federal Institute for Vocational Education and Training (BIBB) joined forces with the social partners and experts from the field of the milling industry and agricultural storage.

The qualification includes

- the control, measurement and regulation of process technology procedures,
- the acceptance and inspection of raw materials,
- sensor-based and technical laboratory investigations,
- the cleaning, treatment, storage and preparation of raw materials for processing,
- the packaging and loading of products
- and the operation, maintenance and servicing of plants, machines and technical equipment.

This means that the training adopts a cross-specialism approach by imparting skills, knowledge and competences all along the process chain from the acceptance of raw materials to making products available for further processing.

Specific focus areas of agricultural storage places emphasis on storing various raw materials in a way which retains their value, the management of drying, cooling and ventilation processes, protection of stocks and energy efficiency.

### Australian standards

Two specific qualifications are registered in Australia that can be considered for comparison as follows:

FDF30111 - Certificate III in Food Processing

This qualification includes a number of units that are applicable to the grain silo industry and also specifically includes unit FDFGR2010A Handle grain in a storage area

AHC40110 - Certificate IV in Agriculture

This qualification includes a number of units that are applicable to the grain silo industry and also specifically includes unit AHCBAC406A, Maintain grain quality in storage

### Comparability Evaluation

Of specific importance are the various programs available from The Grain Elevator and Processing Society (GEAPS) presented in conjunction with the Kansas State University. The competencies addressed by the South African qualification are comparable to the GEAPS standards in terms of complexity and content.

The recent initiative by Germany to introduce a qualification in the agricultural storage operations recognises the formal need for a qualification that imparts skills, knowledge and competences along the process chain from the acceptance of raw materials to making products available for further processing. This qualification is comparable to the South African standard, in as far as quality assurance, storage and inspection of grain are concerned but also includes technical operations components that are not include in the South African qualification.

As is common with the Australian qualifications, both qualifications listed are broadly specified and provides very little value to this comparability evaluation.

### Conclusion

The South African standard is designed to be fit for purpose and is specially aligned with the occupational competencies of a Grain Depot Manager employed by enterprises who operates grain handling and storage facilities.

The approach followed by South Africa in scope and complexity compares well to the GEAPS standards.

### INTEGRATED ASSESSMENT

#### Integrated formative assessment:

The skills development provider will use the curriculum to guide them on the stipulated internal assessment criteria and weighting. They will also apply the scope of practical skills and applied knowledge as stipulated by the internal assessment criteria. This formative assessment leads to entrance into the integrated external summative assessment.

### Integrated summative assessment:

An external integrated summative assessment, conducted through the relevant QCTO Assessment Quality Partner is required for the issuing of this qualification. The external integrated summative assessment will focus on the exit level outcomes and associated assessment criteria.

#### RECOGNITION OF PRIOR LEARNING

### RPL for access to the external integrated summative assessment

Accredited providers and approved workplaces must apply the internal assessment criteria specified in the related curriculum document to establish and confirm prior learning. Accredited providers and workplaces must confirm prior learning by issuing a statement of result or certifying a work experience record.

## RPL for access to the qualification

Accredited providers and approved workplaces may recognise prior learning against the relevant access requirements.

#### **ARTICULATION**

## Horizontal articulation

This qualification articulates horizontally with the following qualifications:

- Occupational Certificate: Feed Miller, SAQA ID 102295, NQF Level 5
- Occupational Certificate: Miller, SAQA ID 97204, NQF Level 5

### **Vertical articulation**

This qualification articulates vertically with the following qualification:

Advanced Certificate in Operations Management, SAQA ID 91993, NQF L6

#### **NOTES**

### **Qualifying for external assessment:**

In order to qualify for an external assessment, learners must provide proof of completion of all required modules by means of a statement of results and work experience.

### Additional legal or physical entry requirements:

None

# Criteria for the accreditation of providers

Accreditation of providers will be done against the criteria as reflected in the relevant curriculum on the QCTO website.

The curriculum title and code is: 132408-000-00: Grain Depot Manager

# This qualification encompasses the following trades as recorded on the NLRD:

• This is not a trade

**Assessment Quality Partner** 

AgriSETA

# **MODULES**

	ID	MODULE TITLE	NQF LEVEL	CREDITS
Knowledge	132408-000-00- 00-KM-01	Grain Handling Operations HR Management	5	8
Knowledge	132408-000-00- 00-KM-02	Communication Studies	5	8
Knowledge	132408-000-00- 00-KM-03	Grain Handling Operations Management	5	16
Knowledge	132408-000-00- 00-KM-04	Stored grain quality control	5	8
Knowledge	132408-000-00- 00-KM-05	Bulk grain handling and storage process technology	5	24
Knowledge	132408-000-00- 00-KM-06	Sampling and grading of grains and oilseed	4	12
Practical Skill	132408-000-00- 00-PM-01	Develop, review and report on operational plans and targets	5	8
Practical Skill	132408-000-00- 00-PM-02	Manage, implement and review a client relationship management strategy	5	6
Practical Skill	132408-000-00- 00-PM-03	Direct and control the performance and conduct of subordinate personnel	5	6
Practical Skill	132408-000-00- 00-PM-04	Plan, direct and control the utilisation of operational resources	5	8
Practical Skill	132408-000-00- 00-PM-05	Communicate operational information and data	5	6
Practical Skill	132408-000-00- 00-PM-06	Plan, monitor and control processes in a grain handling and storage facility	5	23

Practical Skill	132408-000-00- 00-PM-07	Maintain safety and health standards in a grain handling and storage environment	5	8
Practical Skill	132408-000-00- 00-PM-08	Plan and execute grains and oilseeds sampling and grading processes	4	16
Work Experience	132408-000-00- 00-WM-01	Operational planning, review and management processes in a grain handling and storage environment	5	12
Work Experience	132408-000-00- 00-WM-02	Staff management and leadership in a grain handling and storage environment	5	12
Work Experience	132408-000-00- 00-WM-03	Operational resource utilisation practices in a grain handling and storage operation	5	6
Work Experience	132408-000-00- 00-WM-04	Grain handling and storage procedures, systems, standards and processes	5	30
Work Experience	132408-000-00- 00-WM-05	Grain grading practices and procedures	4	12

Occupational Qualification Document						
Occupational Code	Qu	Qualification Title  Occupational Certificate:  Grain Grader		NQF Level	<b>@QCTO</b>	
313911				4		Council for Trades & Occupations
		Name	Email		Phone	Logo
Development Quality Partne	er	AgriSETA	info@ag	griseta.co.za	(012) 301 5600	AgriSETA
Assessment Quality Partne	er	AgriSETA	info@ag	griseta.co.za	(012) 301 5600	AgriSETA

#### **QUALIFICATION DETAILS**

Qualification Title: Occupational Certificate: Grain Handling Controller

Occupational Code: 313911

Quality Assuring Body: Quality Council for Trades and Occupations (QCTO)

Sub Framework: Occupational Qualifications Sub-Framework

Field: Field 01 - Agriculture and Nature Conservation

Subfield: Secondary Agriculture

NQF Level: 04 Credits: 40

Originator/Development Quality Partner (DQP): AgriSETA

Originating Provider/Assessment Quality Partner (AQP): AgriSETA

Qualification Type: Occupational Certificate

Registered qualifications and or learning programmes to be replaced:

None

## **RATIONALE**

Grain Graders are employed by enterprises involved in handling, storage and distribution of grain products. They execute control over quality standards of grain received and dispatched.

The grain storage and handling facilities are mostly located in the rural towns where the crops are produced and the grains are processed, such as mills. In most of these areas the grain handling and storage depots are key providers of employment opportunities.

This qualification forms part of a career path the grain silo industry and provides progression opportunities for many currently employed in the industry.

#### **PURPOSE**

The purpose of this part qualification is to prepare a learner for employment as a Grain Grader

A Grain grader controls the standards of grain delivered to and by the facility

A qualified learner will be able to:

Conduct grain and oilseed sampling and grading processes

### **RULES OF COMBINATION**

This qualification is made up of the following compulsory Knowledge, Practical Skills and Work Experience Modules:

## **Knowledge Modules:**

Total number of credits for Knowledge Modules: 12

#### **Practical Skill Modules:**

Total number of credits for Practical Skill Modules: 16

## **Work Experience Modules:**

Total number of credits for Work Experience Modules: 12

## **ENTRY REQUIREMENTS**

NQF Level 4

### EXIT LEVEL OUTCOMES AND ASSOCIATED ASSESSMENT CRITERIA

**Exit Level Outcome 1** 

Conduct grain and oilseed grading processes

# Associated Assessment Criteria

- Valid and reliable grain and oilseed grading results are assured by applying standard prescribed sampling practices
- Regulated grading standards and requirements are complied with and documented
- Food safety standards and practices are adhered to in accordance with standard procedures
- Grading equipment and consumables are selected and used in accordance with standard procedures
- Work is planned and execute in a structured manner to ensure that the pace of work meets accepted turnaround times.
- The grading results obtained and the interpretation of the results is accurate in accordance with regulatory standards.
- Grading documentation are accurately completed and administrative requirements are met in accordance with standard procedures

### INTERNATIONAL COMPARABILITY

A desktop study was conducted on qualifications and programs, which exist in other countries, that are comparable to this qualification. The comparability exercise focused on countries that have formal qualification registration frameworks or an industry representative body that promotes professional development in the occupation.

The United States of America and Germany were selected based on comparable learning programs and qualifications

### The United States of America

The Grain Elevator and Processing Society (GEAPS) is recognised as the leading knowledge resource of the USA grain handling and storage industry. GEAPS offers distance education programmes in conjunction with the Kansas State University on a wide range of grain handling and storage related topics. Specific learning programs are also presented in quality assurance and grading of grains as specified by the Grain Federal Grain Inspection Service (FGIS) of the USA.

The learner can select a number of subjects for on-line learning, which are comparable to this qualification such as.

- GEAPS 500: Introduction to Grain Operations
- GEAPS 520: Grain Quality Management
- GEAPS 522: FGIS Grain Inspection Orientation

### Germany

A tree year vocational qualification is offered in Germany for Process Technologist for the Milling and Grain industry.

The qualification includes

- the acceptance and inspection of raw materials,
- sensor-based and technical laboratory investigations,

A part of the qualification is specifically dedicated to the inspection or grading of grains and related laboratory practices.

#### Conclusion

The South African qualification is comparable to what is found in the chosen benchmark, in terms of what the qualification covers and the level of skills that have to be developed. It is, however, designed to meet industry specific labour market needs and current transformational challenges in South Africa.

# INTEGRATED ASSESSMENT

## Integrated formative assessment:

The skills development provider will use the curriculum to guide them on the stipulated internal assessment criteria and weighting. They will also apply the scope of practical skills and applied knowledge as stipulated by the internal assessment criteria. This formative assessment leads to entrance into the integrated external summative assessment

## Integrated summative assessment:

An external integrated summative assessment, conducted through the relevant QCTO Assessment Quality Partner is required for the issuing of this qualification. The external integrated summative assessment will focus on the exit level outcomes and associated assessment criteria.

### **RECOGNITION OF PRIOR LEARNING**

RPL for access to the external integrated summative assessment

Accredited providers and approved workplaces must apply the internal assessment criteria specified in the related curriculum document to establish and confirm prior learning. Accredited providers and workplaces must confirm prior learning by issuing a statement of result or certifying a work experience record.

# RPL for access to the qualification

Accredited providers and approved workplaces may recognise prior learning against the relevant access requirements.

#### **ARTICULATION**

### Horizontal articulation

This qualification articulates horizontally with the following qualifications:

- Occupational Certificate: Mineral Beneficiation Process Controller (Material Handler), SAQA ID 99427, NQF L 4
- Further Education and Training Certificate: Chemical Operations, SAQA ID 78529, NQF L 4

#### Vertical articulation

This qualification articulates vertically with the following qualifications:

- Occupational Certificate: Grain Depot Manager, Submitted to the QCTO
- Occupational Certificate: Feed Miller, SAQA ID 102295, NQF Level 5
- Occupational Certificate: Miller, SAQA ID 97204, NQF Level 5

### **NOTES**

## Qualifying for external assessment:

In order to qualify for an external assessment, learners must provide proof of completion of all required modules by means of a statement of results and work experience.

## Additional legal or physical entry requirements:

None

# Criteria for the accreditation of providers

Accreditation of providers will be done against the criteria as reflected in the relevant curriculum on the QCTO website.

The curriculum title and code is: 313911-000-00: Grain Handling Controller

### This qualification encompasses the following trades as recorded on the NLRD:

This is not a trade

## **Assessment Quality Partner**

**AgriSETA** 

## **MODULES**

ID	MODULE TITLE	NQF LEVEL	CREDITS

Knowledge	132408-000-00- 00-KM-04	Sampling and grading of grains and oilseed	4	12
Practical Skill	132408-000-00- 00-PM-05	Plan and execute grains and oilseeds sampling and grading processes	4	16
Work Experience	132408-000-00- 00-WM-03	Grain grading practices and procedures	4	12