

**SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)**

In accordance with regulation 24(c) of the National Standards Bodies Regulations of 28 March 1998, the Standards Generating Body (SGB) for

Secondary Agriculture

Registered by NSB 01, Agriculture and Nature Conservation, publishes the following qualifications and unit standards for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the qualification and unit standards upon which qualifications are based. The full qualification and unit standards can be accessed via the SAQA web site at www.saga.org.za. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, Hatfield Forum, 1067 Arcadia Street, Hatfield, Pretoria.

Comment on the unit standards should reach SAQA at the address ***below and no later than 12 April 2004***. All correspondence should be marked **Standards Setting – SGB for Secondary Agriculture** and addressed to

The Director: Standards Setting and Development
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National Certificate in Seed Processing and Packaging at NQF Level 3

Field: Agriculture and Nature Conservation

Sub-field: Secondary Agriculture

NQF Level: 3

Credits: 123

Rationale for the Qualification

This Qualification is aimed at people who are currently working in the seed industry and who would like to further their career in the seed industry as well as those who would like to pursue a career in the seed industry. It is aimed at formalising the skills required in seed processing and packaging to facilitate career-pathing and to provide access to new entrants. The Qualification provides learners with access to advanced learning in specialised areas within the seed industry. It also provides learners with the necessary background knowledge, skills and values to achieve the NQF principle of portability within other sub-sectors of the agricultural industries.

Through the above, the Qualification will address one of the key National priorities in the reduction of unemployment and under employment. It will assist in creating job opportunities and to create a better nation at large.

Purpose of the Qualification

This Qualification is registered at level 3 on the National Qualification Framework. It provides learners with the opportunity to obtain competence in seed processing and packaging, including aspects such as the receipt of seed, the treatment, enhancement and processing of seed as well as the packaging and storage of seed. The Qualification will provide learners with the technical competence to perform to industry standards.

This Qualification is an entry-level Qualification into seed processing and packaging, enabling learners to progress in other fields of learning in the agricultural industry and providing articulation to higher education and learning.

The Qualification focuses on the skills, knowledge and values to ensure competence at this level of learning. The intention is to enhance the potential of people, in order for them to grow and develop. This Qualification will furthermore add value to the individuals, their workplace and the economy as a whole.

Rules of combination

To obtain this Qualification, the learner must achieve 43 Fundamental credits, 65 Core credits and select 15 Elective credits to total 123 minimum credits.

Access to the Qualification

The only basis for access to this Qualification is outlined under the learning assumed to be in place as outlined below. There are no further restrictions placed on learners, which may prevent them from gaining access to this Qualification.

Learning assumed to be in place

It is assumed that learners wishing to enter a programme leading to this qualification have demonstrated competence in mathematics, languages and communication at NQF 2.

Exit level Outcomes and Associated Assessment Criteria**1. Exit Level Outcome**

Demonstrate an understanding of the introduction to the workplace within the seed industry.

Associated Assessment Criteria

- Consequences of not identifying and reporting unsafe working practices and potentially dangerous situations in the work are explained.
- Purposes of maintaining sound customer relations and service excellence are recalled and explained.
- Reasons for identifying and handling hazardous substances in the work place are explained.
- Consequences of not adhering to company norms, values and ethics are explained.

2. Exit Level Outcome

Receive seed package, label, seal and process seed.

Associated Assessment Criteria

- Appropriate equipment are identified and selected according to work site procedures.
- Purpose of processing seed according to work site procedures is explained.
- Consequences of not monitoring processing and taking corrective actions are explained.
- Purpose of preparing the work area is explained.
- Reasons for adhering to safety and quality procedures.
- Consequences of not preparing work-site adequately according to work site procedures and statutory requirements are explained.
- Consequences of not acquiring and applying the correct identification material according to work site procedures and statutory requirements are explained.
- Importance of verifying delivery documentation and labelling is explained.
- Consequences of not acquiring a representative sample are explained.
- Implications of not identifying deviations on seed are explained.
- Consequences of not evaluating seed according to work site procedures are explained.
- Consequences of not labelling the consignment correctly according to work site procedures and statutory requirements are explained.

3. Exit Level Outcome

Wrap and bulk seed containers, treat, enhance and store seed.

Associated Assessment Criteria

- Appropriate equipment and materials are identified and selected according to work site procedures and statutory requirements.
- Purpose of determining a sequence of operation is explained.
- Consequences of not monitoring treatment and enhancement and taking corrective actions are explained.

- Purpose of preparing the work area is explained.
- Reasons for adhering to safety and quality procedures.
- Consequences of incorrect wrapping are explained.
- Reasons for bulking of correct products are explained.
- Implications of not identifying deviations on seed quality in storage are explained.
- Consequences of not completing documentation according to work site procedures and statutory requirements are explained.

International comparability

Comparisons were done against qualifications in the United States. These were:

- AGN 4253/6253 Seed and Grain Conditioning and Storage
(Mississippi State University)

A comparison of the above Qualifications was undertaken and the best practice points were incorporated and used in the generation of the Unit Standards for this Qualification.

Because of the difference in levels across the different countries, difficulty was found in making actual direct comparisons, level to level. It was found that the South African Qualifications seem to contain more detail and therefore are slightly more complex in their presentation and execution.

Integrated Assessment Criteria

Unit standards associated with this Qualification must be used to assess specific and critical cross-field Specific Outcomes. Assessment should focus in an integrated way on determining the competence of the learner in terms of the overall purpose and title of this Qualification.

The term integrated assessment also implies that the theoretical and practical components should be assessed together and assess combinations of practical, applied, foundational and reflective competencies.

Assessment activities should be done in real workplace situations and where simulations or role-plays are used, there should be supporting evidence to show that the learner is able to display the competencies to the real work situation.

All assessments should be conducted in line with the following documented principles of assessment: appropriateness, fairness, manageability, integration into work of learning, validity, direct, authentic, sufficient, systematic, open and consistent.

Learners wishing to be assessed will need to provide evidence of the following:

- Verbal and written explanations of reasons for adhering to operational and work site procedures as well as statutory requirements, adhering to specific sequence of operations, identifying deviations, taking corrective actions and recording relevant data, and reporting deviations outside the jobholder's responsibility.
- Demonstrations of a range of operational actions relating to applying quality control in processing-, treating-, labelling-, wrapping of seed, and applying general safety in the work place. Learners will also demonstrate an understanding of the Seed Industry and the relevant workplace.
- Oral or written questioning regarding the reflective competencies within the qualification:

If the identifying and solving of problems, team work, organising one-self, the using of applied science, the implication of actions and reactions in the world as a set of related systems are not clear from the observation, a method of oral questioning or a case study should be applied to determine the whole person development and integration of applied knowledge and skills.

- A portfolio of evidence is required to prove the practical, applied and foundational competencies of the learner that may include records of receipts, treatments, enhancements and samplings.
- Assessors and moderators should develop and conduct their own integrated assessment by making use of a range of formative and summative assessment methods. Assessors should assess and give credit for the evidence of learning that has already been acquired through formal, informal and non-formal learning and work experience.
- Unit standards in the qualification must be used to assess specific and critical cross-field Specific Outcomes. During integrated assessments the assessor should make use of formative and summative assessment methods and should assess combinations of practical, applied, foundational and reflective competencies.

Recognition of prior learning (RPL)

This Qualification may be achieved in part or completely through the recognition of prior learning, which includes formal, informal and non-formal learning and work experience. Where RPL is required the learner will need to prove competence in that specific area in order to obtain recognition of that skill and knowledge.

Evidence can be presented in a variety of forms, including international or previous local qualifications, reports, testimonials mentioning functions performed, work records, portfolios, videos of practise and performance records. The assessment methods and tools to be used to assess Prior Learning shall be decided upon jointly by the assessor and the learner.

Articulation possibilities

This Qualification lends itself to both vertical and horizontal articulation possibilities. These possibilities ensure both mobility and progression for the learner in other fields of learning such as Seed Research and Development Operations and Seed Processing and Packaging control.

An example of vertical articulation possibilities:

National Certificate in Seed Processing and Packaging Control at NQF 4.

An example of horizontal articulation possibilities:

National Certificate in Seed Research and development operations at NQF 3.

Moderation options

Moderation includes internal and external moderation of assessments. Internal and external moderation systems must ensure that all assessors produce assessments that are credible, fair, reliable, consistent, adequate and practical.

Internal and external moderation systems must provide learning opportunities that are transparent, affordable and enhancing development in the field and sub-field of the National Qualifications Framework.

The accredited provider with the relevant ETQA must be able to provide internal moderation.

NEW UNIT STANDARDS AT NQF LEVEL 2

1. Title: Acquire an introductory knowledge of the seed industry
2. Title: Demonstrate an understanding of the workplace within the seed industry
3. Title: Wrap and bulk seed containers

NEW UNIT STANDARDS AT NQF LEVEL 3

1. Title: Receive seed
2. Title: Process seed
3. Title: Package, label and seal seed

NEW UNIT STANDARDS AT NQF LEVEL 4

1. Title: Treat and enhance seed
2. Title: Store seed

UNIT STANDARDS TITLES AND SPECIFIC OUTCOMES AT NQF LEVEL 2**1. TITLE: Acquire an introductory knowledge of the seed industry**

Specific Outcome 1.1: Demonstrate an understanding of the role and importance of seed
Specific Outcome 1.2: Demonstrate an understanding of the complexities of living seed
Specific Outcome 1.3: Demonstrate an understanding of the quality components of seed
Specific Outcome 1.4: Demonstrate an understanding of the principles applied to seed storage
Specific Outcome 1.5: Demonstrate a basic awareness of legislation applicable to the seed industry

2. TITLE: Demonstrate an understanding of the introduction to the workplace within the seed industry

Specific Outcome 2.1: Prepare for introduction to seed industry
Specific Outcome 2.2: Understand the nature of the seed industry
Specific Outcome 2.3: Identify and recall basic principles of safety in the workplace
Specific Outcome 2.4: Identify and recall basic principles of work ethics
Specific Outcome 2.5: Complete introduction to seed industry

3. TITLE: Wrap and bulk seed containers

Specific Outcome 3.1: Prepare for wrapping and bulking of containers
Specific Outcome 3.2: Wrap and bulk containers
Specific Outcome 3.3: Complete wrapping and bulking of containers

UNIT STANDARDS TITLES AND SPECIFIC OUTCOMES AT NQF LEVEL 3**1. TITLE: Process seed**

Specific Outcome 1.1: Prepare for processing
Specific Outcome 1.2: Perform processing
Specific Outcome 1.3: Complete processing of seed

2. TITLE: Receive seed

Specific Outcome 2.1: Prepare for receipt of seed
Specific Outcome 2.2: Verify legitimacy and mass/quantity of consignment
Specific Outcome 2.3: Obtain a representative seed sample
Specific Outcome 2.4: Transfer of seed
Specific Outcome 2.5: Complete seed receiving process

3. TITLE: Package, label and seal seed

Specific Outcome 3.1: Prepare for packaging of seed
Specific Outcome 3.2: Apply identification on packaging material
Specific Outcome 3.3: Fill and seal packages
Specific Outcome 3.4: Complete seed packaging process

UNIT STANDARDS TITLES AND SPECIFIC OUTCOMES AT NQF LEVEL 4**1. TITLE: Treat and enhance seed**

Specific Outcome 1.1: Prepare for treatment and enhancement process
Specific Outcome 1.2: Treat and enhance seed
Specific Outcome 1.3: Complete treatment and enhancement process

2. TITLE: Store seed

Specific Outcome 2.1: Prepare for storage
Specific Outcome 2.2: Store seeds
Specific Outcome 2.3: Monitor storage of seed
Specific Outcome 2.4: Complete storage process

National Certificate: Seed Processing and Packaging at NQF level 3						
	NQF Level 2	ID No	Credits	NQF Level 3	ID No	Credits
	Operate a personal computer system	7547	6	Accommodate audience and context needs in oral communication	8968	5
	Know, select and use materials, tools and equipment for technological purposes		1	Interpret and use information from texts	8969	5
				Write texts for a range of communicative contexts	8970	5
				Use language and communication in occupational learning programmes	8973	5
			7	Language/Communication		20
				Demonstrate understanding of the use of different number bases and measurement units and an awareness of error in the context of relevant calculations	9010	2
				Use mathematics to investigate and monitor the financial aspects of personal and business issues	9011	5
				Investigate life and work related problems using data and probabilities	9012	5
				Measure, estimate and calculate physical quantities and explore, describe and represent, interpret and justify geometrical relationships in two and three dimensional space relevant to the life or workplace of the community	9013	4
				Mathematics/Numeracy		16
	Acquire an introductory knowledge of the seed industry		4	Receive seed		13
	Demonstrate an understanding of the introduction to the workplace within the seed industry		2	Process seed		8
	Wrap and bulk seed containers		4	Package, label and seal seed		12
			10			33
	Operate in a team	8420	2	Apply basic business principles	8000	9
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				Contribute to effective working relationships	12609	4
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National Certificate: Seed Research and Development Operations at NQF Level 3

Field: Agriculture and Nature Conservation

Sub-field: Secondary Agriculture

NQF Level: 3

Credits: 120

Rationale for the Qualification

This Qualification is aimed at people who are working in the seed industry and who would like to pursue a career in the seed industry. It is aimed at formalising the skills required in seed research and development operations to facilitate career-pathing and to provide access to new entrants. The qualification provides learners with access to advanced learning in specialised areas within the seed industry. It also provides learners with the necessary background knowledge and skills to enhance the NQF principles of portability within other agricultural industries.

Through the above, the Qualification will address one of the key priorities of the Department of Labour in the reduction of unemployment and under employment. It will assist in creating job opportunities.

Purpose of the qualification

This Qualification is registered at level 3 on the National Qualification Framework. It provides learners with the opportunity to obtain competence in seed research and development operations, including the receipt and storage of seed; the planting, cultivating and harvesting of seed trials and the conducting of controlled pollination. The Qualification will provide learners with the technical competence to perform to industry standards.

This Qualification is an entry-level qualification into seed research and development enabling learners to progress in other fields of learning in the agricultural industry and providing articulation to higher education and learning.

The Qualification focuses on the skills, knowledge, and values to ensure competence at this level of learning. The intention is to enhance the potential of people, in order for them to grow and develop. This Qualification will furthermore add value to the individuals, their workplace and the economy as a whole.

Rules of combination

To obtain this Qualification, the learner must achieve 48 Fundamental credits, 58 Core credits and select 14 Elective credits to total 120 minimum credits.

Access to the qualification

There are no restrictions placed on learners, which may prevent them from gaining access to this Qualification, other than those stipulated as learning assumed to be in place.

Learning assumed to be in place

It is assumed that learners wishing to enter a programme leading to this qualification have demonstrated competence in mathematics, languages and communication at NQF 2.

Exit level Specific Outcomes and Associated Assessment Criteria**Exit Level Outcome 1**

Grow and harvest seed trials

Associated Assessment Criteria

- Trial- and planting plan is acquired and followed according to work site procedures.
- Germplasm is acquired according to work-site procedures
- Appropriate PPE is selected and used, adhering to safety regulations according to work-site procedures and statutory requirements
- Deviations from the trial-, planting plan and -instructions are identified and explained.
- Consequences of not acquiring the harvesting plan, instructions and documentation according to work site procedures are explained.
- Importance of advising accurately on corrective action to be taken according to work site procedures is explained.
- Importance of advising accurately on the use of appropriate equipment according to work site procedures is explained.
- Implications of not identifying and reporting on variations and informing relevant parties according to work site procedures and statutory requirements are explained.

Exit level outcome 2

Receive, store seed and conduct controlled pollination

Associated assessment criteria

- Consequences of not obtaining or adhering to the pollination plan and instructions according to work site procedures are explained.
- Consequences of not selecting and using appropriate equipment according to work site procedures are explained.
- Implications of not identifying and informing relevant parties of deviations from the pollination plan according to work site procedures are explained.
- Delivery documentation and labels are verified.
- Seed is evaluated and deviations identified.
- Consignments are correctly labelled according to work-site procedures and statutory requirements
- Seed is correctly transferred according to work-site procedures
- Consequences of not compiling and updating the storage plan are explained.
- Consequences of not obtaining and sending required samples for quality evaluation are explained.

Exit Level Outcome 3

Communicate in a variety of ways

Assessment criteria

- Oral communication is maintained and adapted as required to promote effective interaction in a work context.
- Information is accessed from standing instructions, visual information and a range of other workplace texts and responses where required are appropriate to the context.
- Written communication is clear and unambiguous and at an appropriate level for designated target audiences.

Exit level Outcome 4

Use mathematics in real life and education, training and development situations.

Assessment criteria

- Mathematical functions are used correctly to solve routine workplace problems and tasks.

International comparability

Comparisons were done against Qualifications in the United States. These were:

- HCS 684 Seed Production Course
(Ohio State University)
- AGN 4253/6253 Seed and Grain Conditioning and Storage
(Mississippi State University)

A comparison of the above Qualifications was undertaken and relevant literary works consulted. The best practice points were incorporated and used in the generation of this Qualification's Unit Standards.

Because of the difference in levels across the different countries, difficulty was found in making actual direct comparisons, level to level. It was found that the South African qualifications are more adapted for the needs of the local seed industry in terms of practical skills.

Integrated Assessment Criteria

Unit Standards associated with this Qualification must be used to assess specific and critical cross-field Specific Outcomes. Assessment should focus in an integrated way on determining the competence of the learner in terms of the overall purpose and title of this Qualification.

The term integrated assessment also implies that the theoretical and practical components should be assessed together and assess combinations of practical, applied, foundational and reflexive competencies.

Assessment activities should be done in real workplace situations and where simulations or role-plays are used, there should be supporting evidence to show that the learner is able to display the competencies to the real work situation.

All assessments should be conducted in line with the following documented principles of assessment: appropriateness, fairness, manageability, integration into work of learning, validity, direct, authentic, sufficient, systematic, open and consistent.

Learners wishing to be assessed will need to provide evidence of the following:

- Verbal and written explanations of reasons for adhering to operational and work site

procedures as well as statutory requirements, adhering to specific sequence of operations, identifying deviations, taking corrective actions and recording relevant data, and reporting deviations outside the jobholder's responsibility.

- Demonstrations of a range of operational actions relating to applying quality control in the receipt and storage of seed; planting, cultivating and harvesting trials and conducting controlled pollination, whilst applying general safety in the work place. Learners will also demonstrate an understanding of the Seed Industry and the relevant workplace.
- Oral or written questioning regarding the reflective competencies within the qualification:

If the identifying and solving of problems, team work, organising one-self, the using of applied science, the implication of actions and reactions in the world as a set of related systems are not clear from the observation, a method of oral questioning or a case study should be applied to determine the whole person development and integration of applied knowledge and skills.

- A portfolio of evidence is required to prove the practical, applied and foundational competencies of the learner that may include production and quality statistics, trial plan, - results, pollination programmes.
- Assessors and moderators should develop and conduct their own integrated assessment by making use of a range of formative and summative assessment methods. Assessors should assess and give credit for the evidence of learning that has already been acquired through formal, informal and non-formal learning and work experience.
- Unit standards in the qualification must be used to assess specific and critical cross-field Specific Outcomes. During integrated assessments the assessor should make use of formative and summative assessment methods and should assess combinations of practical, applied, foundational and reflective competencies.

Recognition of prior learning (RPL)

This Qualification may be achieved in part or completely through the recognition of prior learning, which includes formal, informal and non-formal learning and work experience. Where RPL is required the learner will need to prove competence in that specific area in order to obtain recognition of that skill and knowledge.

Evidence can be presented in a variety of forms, including international or previous local qualifications, reports, testimonials mentioning functions performed, work records, portfolios, videos of practise and performance records. The assessment methods and tools to be used to assess Prior Learning shall be decided upon jointly by the assessor and the learner.

Articulation possibilities

This Qualification lends itself to both vertical and horizontal articulation possibilities. These possibilities ensure both mobility and progression for the learner in other fields of learning such as seed production, seed research and development and seed processing and packaging.

Examples of vertical articulation possibilities:

National Certificate in Seed Production NQF 4

National Certificate in Seed Research and Development NQF 4

Examples of horizontal articulation possibilities:

National Certificate in Seed Processing and packaging at NQF 3

National Certificate in Seed Analysis at NQF 3

Moderation Options

Anyone assessing a learner against this Qualification and the associated Unit Standards must be registered as an assessor with the relevant ETQA.

Any institution offering learning that will enable achievement of this Qualification and the Unit Standards or will assess the same must be accredited as a provider with the relevant ETQA. Moderation of assessment will be overseen by the relevant ETQA according to the moderation guidelines in this Qualification and the agreed upon ETQA procedures.

Therefore anyone wishing to be assessed against this Qualification and the associated Unit Standards may apply to be assessed by any assessment agency, assessor or provider institution, which is accredited by the relevant ETQA.

NEW UNIT STANDARD AT NQF LEVEL 2

1. Acquire and introductory knowledge of the seed industry
2. Demonstrate an understanding of the introduction to the workplace within the seed Industry

NEW UNIT STANDARDS AT NQF LEVEL 3

1. Receive seed
2. Plant seed trials
3. Cultivate seed trials
4. Harvest seed trials

NEW UNIT STANDARDS AT NQF LEVEL 4

1. Store seed
2. Conduct controlled pollination

UNIT STANDARDS TITLES AND SPECIFIC OUTCOMES AT NQF LEVEL 2**1. TITLE: Acquire an introductory knowledge of the seed industry**

Specific Outcome 1.1: Demonstrate an understanding of the role and importance of seed

Specific Outcome 1.2: Demonstrate an understanding of the complexities of living seed

Specific Outcome 1.3: Demonstrate an understanding of the quality components of seed

Specific Outcome 1.4: Demonstrate an understanding of the principles applied to seed storage

Specific Outcome 1.5: Demonstrate a basic awareness of legislation applicable to the seed industry

2. TITLE: Demonstrate an understanding of the introduction to the workplace within the seed industry

Specific Outcome 2.1: Prepare for introduction to seed industry

Specific Outcome 2.2: Understand the nature of the seed industry

Specific Outcome 2.3: Identify and recall basic principles of safety in the workplace

Specific Outcome 2.4: Identify and recall basic principles of work ethics

Specific Outcome 2.5: Complete introduction to seed industry

UNIT STANDARDS' TITLES AND SPECIFIC OUTCOMES AT NQF LEVEL 3**1. TITLE: Receive seed**

Specific Outcome 1.1: Prepare for receipt of seed

Specific Outcome 1.2: Verify legitimacy and mass/quantity of consignment

Specific Outcome 1.3: Obtain a representative seed sample

Specific Outcome 1.4: Transfer of seed

Specific Outcome 1.5: Complete seed receiving process

2. TITLE: Plant seed trials

Specific Outcome 2.1: Prepare for planting

Specific Outcome 2.2: Prepare trial site for planting

Specific Outcome 2.3: Planting the trial

Specific Outcome 2.4: Complete the planting of the trial

3. TITLE: Cultivate seed trials

Specific Outcome 3.1: Prepare for cultivation of trials

Specific Outcome 3.2: Cultivate the trial

Specific Outcome 3.3: Complete the cultivation process

4. TITLE: Harvest seed trials

Specific Outcome 4.1: Prepare for harvesting of trial

Specific Outcome 4.2: Harvest trial

Specific Outcome 4.3: Complete harvesting process

Specific Outcome 4.4: Restore work area

UNIT STANDARDS' TITLES AND SPECIFIC OUTCOMES AT NQF LEVEL 4**1. TITLE: Conduct controlled pollination**

Specific Outcome 1.1: Prepare for pollination of trials

Specific Outcome 1.2: Execute pollination of trials

Specific Outcome 1.3: Complete pollination process

2. TITLE: Store seed

Specific Outcome 2.1: Prepare for storage

Specific Outcome 2.2: Store seeds

Specific Outcome 2.3: Monitor storage of seed

Specific Outcome 2.4: Complete storage process

National Certificate: Seed Research and Development Operations at NQF level 3							
	NQF Level 2	ID No	Credits	NQF Level 3	ID No	Credits	NQF Level 4
Fundamental	Operate a personal computer system	7547	6	Accommodate audience and context needs in oral communication	8968	5	
	Demonstrate knowledge of and produce computer spreadsheets using basic functions	7572	3	Interpret and use information from texts	8969	5	
	Demonstrate knowledge of and produce word processing documents using basic functions	7568	3	Write texts for a range of communicative contexts	8970	5	
				Use language and communication in occupational learning programmes	8973	5	
			12	Language/Communication	9010	2	
Core				Demonstrate understanding of the use of different number bases and measurement units and an awareness of error in the context of relevant calculations			
				Use mathematics to investigate and monitor the financial aspects of personal and business issues	9011	5	
				Investigate life and work related problems using data and probabilities	9012	5	
				Measure, estimate and calculate physical quantities and explore, describe and represent, interpret and justify geometrical relationships in two and three dimensional space relevant to the life or workplace of the community	9013	4	
				Mathematics/Numeracy		16	
Elective	Acquire an introductory knowledge of the seed industry		4	Receive seed		13	Store seed
	Demonstrate an understanding of the introduction to the workplace within the seed industry		2	Plant seed trials		7	Conduct controlled pollination
				Cultivate seed trials		6	
				Harvest seed trials		8	
			6			24	
	Operate in a team	8420	4	Apply basic business principles	8000	9	Contribute to effective working relationships
	Maintain occupational health and safety	8493	2				
			6			9	
						4	
							19
Total Credits for Qualification - 125							



Further Education and Training Certificate: Seed Production at NQF Level 4

Field: Agriculture and Nature Conservation

Sub-field: Secondary Agriculture

NQF Level: 4

Credits: 159

Rationale for the Qualification

This qualification is aimed at people who are working in the seed industry and who would like to pursue a career in the seed industry. It is aimed at formalising the skills required in seed production to facilitate career-pathing and to provide access to new entrants. The Qualification provides learners with access to advanced learning in specialised areas within the seed industry. It also provides learners with the necessary background knowledge and skills to enhance the NQF principles of portability within other agricultural industries.

Through the above, the Qualification will address one of the key priorities of the Department of Labour in the reduction of unemployment and under employment. It will assist in creating job opportunities.

Purpose of the Qualification

This Qualification is registered at level 4 on the National Qualification Framework. It provides learners with the opportunity to obtain competence in seed production, including aspects such as contracting seed growers, monitoring of the seed production process, and ensuring seed quality. The qualification will provide learners with the technical competence to perform to industry standards.

This Qualification is an entry-level qualification into seed production enabling learners to progress in other fields of learning in the agricultural industry and providing articulation to higher education and learning.

The Qualification focuses on the skills, knowledge, and values to ensure competence at this level of learning. The intention is to enhance the potential of people, in order for them to grow and develop. This Qualification will furthermore add value to the individuals, their workplace and the economy as a whole.

Rules of combination

To obtain this qualification the learner must achieve 74 Fundamental credits, 80 Core credits and select 5 Elective credits to total 159 minimum credits.

Access to the Qualification

The only requirement for access to this Qualification is the learning assumed to be in place as outlined below. There are no other restrictions placed on learners, which may prevent them from gaining access to this Qualification.

Learning assumed to be in place

It is assumed that learners wishing to enter a programme leading to this qualification have demonstrated competence in mathematics, languages and communication at NQF 3.

Exit level Specific Outcomes and associated assessment criteria**Exit level outcome 1**

Grow a seed unit

Assessment Criteria

- Production plan is acquired and followed according to work site procedures.
- Parent seed is selected correctly to ensure pure seed of a specific cultivar.
- Crop is successfully grown including but not limited to plant population, and plant health.
- Equipment for growing a seed unit is correctly selected and used according to standard operating procedures.

Exit level outcome 2

Harvest and thresh seed

Assessment Criteria

- Harvest and thresh plans are acquired and followed according to work site procedures.
- Problems with harvesting and threshing of seed are identified and appropriate remedial action is taken according to standard operating procedures.
- Equipment is correctly selected and used according to standard operating procedures.
- Threshed seed is marked and distributed according to statutory requirements and work site procedures.

Exit level outcome 3

Inspect a seed unit

Assessment Criteria

- Planting plan is acquired and inspection plan is developed according to work site procedures and statutory requirements.
- Consequences of not inspecting the seed unit according to work site procedures are explained.
- Variations in the seed unit are identified and handled according to work site procedures.
- Advice on correctly selecting and using equipment is provided in accordance with standard operating procedures and statutory requirements.
- Consequences of not completing the documentation according to work site procedures and statutory requirements are explained.
- Importance of giving corrective advice on seed unit is explained.

Exit level outcome 4

Demonstrate a general knowledge of the seed industry.

Assessment Criteria

- Consequences of not understanding seed as a living organism are explained.
- The importance of correctly applying relevant seed rules and regulations are explained.

- Reasons for using the correct processing equipment in the workplace are explained.
- The impact of various processes on the physiology and quality of seed are explained.

Exit level outcome 5

Sample, receive a seed lot and distribute parent seed.

Assessment Criteria

- Importance of drawing a representative sample is explained.
- Implications of not identifying deviations on seed are explained.
- Consequences of not labelling the sample correctly according to work site-, operational procedures and statutory requirements are explained.
- Consequences of not using the appropriate equipment for drawing a sample according to work site-, operational procedures and statutory requirements are explained.
- Consequences of not completing documentation according to work site -, operational procedures and statutory requirements are explained.
- Importance of adhering to health and safety regulations when drawing a sample is explained.
- Consequences of not obtaining correct parent seed according to work site procedures are explained.
- Consequences of not delivering the correct parent seed are explained.
- Implications of not identifying and informing relevant parties of variations according to work site procedures are explained.

Exit level outcome 6

Contract seed growers.

Assessment Criteria

- Consequences of not obtaining accurate production information according to work site procedures are explained.
- Consequences of not adhering to legal requirements when completing the contract are explained.
- Implications of not identifying and informing relevant parties of variations according to work site procedures are explained.
- Consequences of not selecting appropriate production fields and hectares are explained.
- Consequences of not selecting suitable growers are explained.
- Consequences of not completing documentation according to work site procedures and legal requirements are explained.

International comparability

A thorough search was done to find international qualifications and unit standards in seed processing countries specific to the seed production, but no formal unit standards and qualifications could be found.

However, areas such as seed production and technology were compared to State Universities. These were:

- PLS 556 Seed Production and Technology Course
(Prof TeKrone – University of Kentucky)
- HCS 694 Seed Production course
(Ohio State University)
- AGN 4223/6223 Seed Production Course
(Mississippi State University)

A comparison of the above Qualifications was undertaken and various literary sources consulted. The best practice points were incorporated and used in the generation of this Qualification's Unit Standards.

Because of the difference in levels across the different countries, difficulty was found in making actual direct comparisons, level to level. It was found that the South African Qualifications are more skills-based and adapted to local industry requirements.

Integrated Assessment Criteria

Unit Standards associated with this Qualification must be used to assess specific and critical cross-field Specific Outcomes. Assessment should focus in an integrated way on determining the competence of the learner in terms of the overall purpose and title of this Qualification.

Assessment activities should be done in real workplace situations and where simulations or role-plays are used, there should be supporting evidence to show that the learner is able to display the competencies to the real work situation.

All assessments should be conducted in line with the following documented principles of assessment: appropriateness, fairness, manageability, integration into work of learning, validity, direct, authentic, sufficient, systematic, open and consistent.

Learners wishing to be assessed will need to provide evidence of the following:

- Verbal and written explanations of reasons for adhering to operational and work site procedures as well as statutory requirements, adhering to specific sequence of operations, identifying deviations, taking corrective actions and recording relevant data, and reporting deviations outside the jobholder's responsibility.
- Demonstrations of a range of operational actions relating to applying quality control in cultivating-, harvesting-, inspecting- and certifying seed units; threshing harvested material; conducting controlled pollination and applying general safety in the work place. Learners will also demonstrate an understanding of the Seed Industry and the relevant workplace.
- Oral or written questioning regarding the reflective competencies within the qualification:

If the identifying and solving of problems, team work, organising one-self, the using of applied science, the implication of actions and reactions in the world as a set of related systems are not clear from the observation, a method of oral questioning or a case study should be applied to determine the whole person development and integration of applied knowledge and skills.

- A portfolio of evidence is required to prove the practical, applied and foundational competencies of the learner that may include field inspection reports and trial production results.
- Assessors and moderators should develop and conduct their own integrated assessment by making use of a range of formative and summative assessment methods. Assessors should assess and give credit for the evidence of learning that has already been acquired through formal, informal and non-formal learning and work experience.
- Unit standards in the qualification must be used to assess specific and critical cross-field Specific Outcomes. During integrated assessments the assessor should make use of formative and summative assessment methods and should assess combinations of practical, applied, foundational and reflective competencies.

Recognition of prior learning (RPL)

This Qualification may be achieved in part or completely through the recognition of prior learning, which includes formal, informal and non-formal learning and work experience. Where RPL is required the learner will need to prove competence in that specific area in order to obtain recognition of that skill and knowledge.

Evidence can be presented in a variety of forms, including international or previous local qualifications, reports, testimonials mentioning functions performed, work records, portfolios, videos of practise and performance records. The assessment methods and tools to be used to assess Prior Learning shall be decided upon jointly by the assessor and the learner.

Articulation possibilities

This Qualification lends itself to both vertical and horizontal articulation possibilities. These possibilities ensure both mobility and progression for the learner in other fields of learning such as seed processing and packaging control and seed research and development.

An example of vertical articulation possibilities:

National Diploma in Farm Management NQF 5 (ID 20291)

An example of horizontal articulation possibilities:

National Certificate in Agric Sales and Services NQF 4 (14854)

Moderation Options

Anyone assessing a learner against these unit standards must be registered as an assessor with the relevant ETQA.

Any institution offering learning that will enable achievement of these unit standards or will assess these unit standards must be accredited as a provider with the relevant ETQA.

Moderation of assessment will be overseen by the relevant ETQA according to the moderation guidelines in the relevant qualification and the agreed ETQA procedures.

Therefore anyone wishing to be assessed against these unit standards may apply to be assessed by any assessment agency, assessor or provider institution, which is accredited by the relevant ETQA.

NEW UNIT STANDARDS AT NQF LEVEL 3

1. Acquire a general knowledge of the seed industry
2. Receive and distribute parent seed
3. Plant a seed unit

NEW UNIT STANDARDS AT NQF LEVEL 4

1. Contract seed growers
2. Cultivate a seed unit
3. Harvest seed
4. Thresh harvested material
5. Sample a seed lot
6. Determine seed stock levels
7. Conduct controlled pollination
8. Conduct a field inspection of a seed unit
9. Execute seed trials
10. Certify a seed unit

UNIT STANDARDS TITLES AND SPECIFIC OUTCOMES AT NQF LEVEL 3**1. TITLE: Acquire a general knowledge of the seed industry**

Specific Outcome 1.1: Demonstrate knowledge of the complexities of living seed.
Specific Outcome 1.2: Demonstrate knowledge of the operations of the seed industry.
Specific Outcome 1.3: Demonstrate knowledge of seed legislation.
Specific Outcome 1.4: Demonstrate knowledge of seed technology and physiology.

2. TITLE: Receive and distribute parent seed

Specific Outcome 2.1: Plan for seed receipt
Specific Outcome 2.2: Distribute the parent seed
Specific Outcome 2.3: Complete receipt and distribution of parent seed

3. TITLE: Plant a seed unit

Specific Outcome 3.1: Plan for establishment of seed units
Specific Outcome 3.2: Arrange seed bed preparation for planting
Specific Outcome 3.3: Monitor planting equipment and seed sources
Specific Outcome 3.4: Complete planting of seed unit

UNIT STANDARDS TITLES AND SPECIFIC OUTCOMES AT NQF LEVEL 4**1. TITLE: Contract seed growers**

Specific Outcome 1.1: Plan for seed production
Specific Outcome 1.2: Contract growers
Specific Outcome 1.3: Complete preparation for seed production

2. TITLE: Cultivate a seed unit

Specific Outcome 2.1: Prepare for cultivation
Specific Outcome 2.2: Grow the seed unit
Specific Outcome 2.3: Complete cultivation process

3. TITLE: Harvest seed

Specific Outcome 3.1: Prepare unit for harvesting
Specific Outcome 3.2: Harvest seed unit
Specific Outcome 3.3: Complete harvesting process

4. TITLE: Thresh harvested material

Specific Outcome 4.1: Prepare for threshing
Specific Outcome 4.2: Threshing the seed
Specific Outcome 4.3: Complete harvesting process

5. TITLE: Sample a seed lot

Specific Outcome 5.1: Prepare for drawing a seed sample
Specific Outcome 5.2: Draw a seed sample
Specific Outcome 5.3: Divide the seed sample
Specific Outcome 5.4: Complete the seed sampling process

6. TITLE: Determine seed stock levels

Specific Outcome 6.1: Prepare for determining stock levels
Specific Outcome 6.2: Determine stock levels
Specific Outcome 6.3: Complete process of determining stock levels
Specific Outcome 6.4: Restore work area

7. TITLE: Conduct controlled pollination

Specific Outcome 7.1: Prepare for pollination of trials
Specific Outcome 7.2: Execute pollination of trials
Specific Outcome 7.3: Complete pollination process

8. TITLE: Conduct a field inspection of a seed unit

Specific Outcome 8.1: Prepare for inspection
Specific Outcome 8.2: Inspect seed unit
Specific Outcome 8.3: Implement corrective action
Specific Outcome 8.4: Complete inspection process

9. TITLE: Execute seed trials

Specific Outcome 9.1: Prepare trial site for planting
Specific Outcome 9.2: Establish and grow plants
Specific Outcome 9.3: Present material by using appropriate crop husbandry
Specific Outcome 9.4: Harvest material

11. TITLE: Certify a seed unit

Specific Outcome 11.1: Prepare for certification inspection
Specific Outcome 11.2: Inspect the seed unit
Specific Outcome 11.3: Conclude inspection process
Specific Outcome 11.4: Complete unit certification

National Certificate: Seed Production at NQF level 4						
	NQF Level 3	ID No	Credits	NQF Level 4	ID No	Credits
Fundamental	Accommodate audience and context needs in oral communication	8988	5	Engage in sustained oral communication and evaluate spoken texts	8974	5
	Interpret and use information from texts	8969	5	Read, analyse and respond to a variety of texts	8975	5
	Write texts for a range of communicative contexts	8970	5	Write for a wide range of contexts	8976	5
	Use language and communication in occupational learning programmes	8973	5	Use language and communication in occupational learning programmes	8979	5
TOTAL	Language/Communication		20	Language/Communication		20
Fundamental	Operate a computer	7786	8	Use mathematics to investigate and monitor the financial aspects of personal, business and national issues	9014	6
	Produce and use spreadsheets for business	7567	5	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life-related problems	9015	6
	Produce word processing documents for business	7570	5	Measure, estimate and calculate physical quantities and explore, critique and prove geometrical relationships in two and three dimensional space in the life and workplace of the adult with increasing responsibility	9016	4
	TOTAL	Mathematics/Numeracy	18	Mathematics/Numeracy		16
Core	Acquire a general knowledge of the seed industry		11	Contract seed growers		6
	Receive and distribute parent seed		5	Cultivate a seed unit		5
	Plant a seed unit		8	Harvest seed		9
				Thresh harvested material		9
				Sample a seed lot		8
				Determine seed stock levels		4
				Conduct controlled pollination		6
TOTAL			24	Conduct a field inspection of a seed unit		9
Elective						56
				Execute seed trials		12
TOTAL				Certify a seed unit		5
TOTAL Credits for Qualification : 150						17
TOTAL Credits for Qualification : 150						5



National Certificate in General Abattoir Processes at NQF Level 2

Field: Agriculture and Nature Conservation

Sub-field: Secondary Agriculture

NQF level: 2

Credits: 120

Rationale for the qualification

This qualification is aimed at people who are working in the red meat industry or who would like to start a career in the industry. It is aimed at formalising the skills required in the red meat industry to facilitate career-pathing and to provide access to new entrants. The qualification provides learners with access to advanced learning in specialised areas within the red meat industry. It also provides learners with the necessary background knowledge and skills to be portable within other industries.

Through the above the qualification will address one of the key priorities of the Department of Labour in the reduction of unemployment and under employment. It will assist in creating job opportunities.

Purpose of the qualification

This qualification is registered at level 2 on the National Qualification Framework. It provides learners with the opportunity to obtain competence in broad abattoir processes and practices, namely handling of offal, handling of slaughtered animals ante mortem and effluent handling, providing opportunity for learners to grow in this specific field.

The fundamental learning, which learners will acquire, will allow them to be able to compile verbal and written communications and perform basic calculations. This qualification complies with the objectives of the NQF with regard to facilitating access to, mobility and progression within the red meat industry.

The qualification focuses on the skills, knowledge, values and attitude required to progress further in the industry. The intention is to release the potential of people, in order for them to grow, develop and become more competent workers. This qualification will furthermore add value to the individuals, their workplace and the economy as a whole.

Rules of combination

To obtain this qualification all Fundamental and Core unit standards are compulsory. The learner must select a minimum of 25 credits from the Elective category to total 120 credits.

Access to the qualification

There are no restrictions placed on learners, which may prevent them from gaining access to this qualification.

Learning assumed to be in place

The learner will have appropriate levels of competence in Communication, Languages and Numeracy equivalent to NQF1.

Exit level outcomes and associated assessment criteria

The qualified learner will be able to:

1. Exit level outcome

- Show an understanding of the basic principles, processes, and operations within the abattoir industry.

Associated assessment criteria

- Principles of safety requirements and hygiene factors are explained.
- Basic principles of work ethics are recalled and described.
- Reasons and consequences of not adhering to business principles, processes and operations are identified and explained.

2. Exit level outcome

- Prepare and handle animals/carcasses pre and during slaughter.

Associated assessment criteria

- Reasons for handling animals/carcasses according to requirements are identified and explained.
- Reasons and consequences for not adhering to legal and procedural requirements are explained.

3. Exit level outcome

- Handle and process offal.

Associated assessment criteria

- Hygienic procedures are adhered to and applied according to instructions.
- Procedures for handling equipment correctly and according to safety requirements are explained and applied.
- Reasons and consequences of not adhering to legal and procedural requirements for handling offal are identified and explained.

4. Exit level outcome

- Apply proper handling techniques of condemned material

Associated assessment criteria

- Procedures for handling condemned material correctly and according to health and safety requirements are explained and applied.
- Reasons and consequences of not adhering to procedural requirements for correct handling of condemned material are identified and explained.

5. Exit level outcome

- Carry out hides and skins handling processes.

Associated assessment criteria

- Procedures for handling hides and skins correctly and according to work site procedures, safety regulations and statutory requirements are explained and implemented.
- Machinery and equipment for handling hides and skins are operated according to manufacturers specifications.
- Reasons and consequences of not operating machinery according to manufacturers specifications are identified and explained.

6. Exit level outcome

- Handle and dispatch chilled carcasses.

Associated assessment criteria

- Procedures and policies for handling chilled carcasses correctly and according to work site procedures, safety regulations and statutory requirements are explained and applied.
- Machinery and equipment for chilling carcasses are operated according to manufacturers specifications.
- Reasons and consequences of not dispatching chilled carcasses according to policies and procedures are identified and explained.

International comparability

Comparisons were done against unit standards and qualifications in the New Zealand Qualifications Authority. These were:

- National Certificate in Meat Processing (Introductory)
- National Certificate in Meat Processing (Preparation of Livestock)

A comparison of the above qualifications was undertaken and the best practice points were highlighted and used in the generation of this qualification's unit standards.

In general this qualification and its component unit standards were compared with their international counterparts and the differences are in the formatting, titles and scope of coverage or focus.

Integrated Assessment Criteria

Unit standards associated with this qualification must be used to assess specific and critical cross-field outcomes. Assessment should focus in an integrated way on determining the competence of the learner in terms of the overall purpose and title of this qualification.

The term integrated assessment also implies that the theoretical and practical components should be assessed together and assess combinations of practical, applied, foundational and reflective competencies.

Assessment activities should be done in real workplace situations and where simulations or role-plays are used, there should be supporting evidence to show that the learner is able to display the competencies to the real work situation.

All assessments should be conducted in line with the following documented principles of assessment: appropriateness, fairness, manageability, integration into work of learning, validity, direct, authentic, sufficient, systematic, open and consistent.

procedures as well as statutory requirements, adhering to specific sequence of operations, identifying deviations, taking corrective actions and recording relevant data, and reporting deviations outside the jobholder's responsibility.

- Documentation and explanation of administrative records completed during the process of preparing animals for slaughter and handling of red and rough offal.
- Demonstrations of a range of actions in handling animals and applying general safety in the workplace
- A portfolio of evidence is required to prove the practical, applied and foundational competencies of the learner, which may include production and quality data.

Assessors and moderators should develop and conduct their own integrated assessment by making use of a range of formative and summative assessment methods. Assessors should assess and give credit for the evidence of learning that has already been acquired through formal, informal and non-formal learning and work experience.

Articulation possibilities

This qualification lends itself to both vertical and horizontal articulation possibilities. These possibilities ensure both mobility and progression for the learner in other fields of learning such as management, and areas where supervisory competence is required. The learning areas outlined in the purpose of the qualification indicate the vertical articulation possibilities.

This Qualification will articulate horizontally with the:

- National Certificate in General Abattoir Processes level 2.

Recognition of prior learning

This qualification may be achieved in part or completely through the recognition of prior learning, which includes formal, informal and non-formal learning and work experience. Where RPL is required the learner will need to prove competence in that specific area in order to obtain recognition of that skill and knowledge.

Evidence can be presented in a variety of forms, including international or previous local qualifications, reports, testimonials mentioning functions performed, work records, portfolios, videos of practise and performance records. The assessment methods and tools to be used to assess Prior Learning shall be decided upon jointly by the assessor and the learner.

Articulation possibilities

This qualification lends itself to both vertical and horizontal articulation possibilities. These possibilities ensure both mobility and progression for the learner in other fields of learning such as the poultry, dairy, and fish industries and areas where supervisory competence is required. The learning areas outlined in the purpose of the qualification indicate the vertical articulation possibilities.

Moderation Options

Anyone assessing a learner against these unit standards must be registered as an assessor with the relevant ETQA.

Any institution offering learning that will enable achievement of these unit standards or will assess these unit standards must be accredited as a provider with the relevant ETQA.

Moderation of assessment will be overseen by the relevant ETQA according to the moderation guidelines in the relevant qualification and the agreed ETQA procedures.

Therefore anyone wishing to be assessed against these unit standards may apply to be assessed by any assessment agency, assessor or provider institution, which is accredited by the relevant ETQA.

Moderation Options

Anyone assessing a learner against these unit standards must be registered as an assessor with the relevant ETQA.

Any institution offering learning that will enable achievement of these unit standards or will assess these unit standards must be accredited as a provider with the relevant ETQA.

Moderation of assessment will be overseen by the relevant ETQA according to the moderation guidelines in the relevant qualification and the agreed ETQA procedures.

Therefore anyone wishing to be assessed against these unit standards may apply to be assessed by any assessment agency, assessor or provider institution, which is accredited by the relevant ETQA.

NEW UNIT STANDARDS TITLES AT NQF LEVEL 1 AND 2

1. TITLE: Basic introduction to abattoir industry
2. TITLE: Handle slaughter animals ante-mortem
3. TITLE: Prepare animals for slaughter
4. TITLE: Handle red offal
5. TITLE: Handle rough offal
6. TITLE: Process offal
7. TITLE: Basic handling of condemned material
8. TITLE: Handle effluent
9. TITLE: Handle hides and skins
10. TITLE: Chill and dispatch carcasses
11. TITLE: Count incisors

UNIT STANDARD TITLES AND SPECIFIC OUTCOMES**1. TITLE: Basic introduction to abattoir industry**

Specific Outcome 1.1: Plan and prepare for introduction to the abattoir industry
Specific Outcome 1.2: Identify basic principles in the abattoir industry
Specific Outcome 1.3: Identify basic functions in the abattoir industry
Specific Outcome 1.4: Identify basic principles of work ethics
Specific Outcome 1.5: Complete introduction to the abattoir industry

2 TITLE: Handle slaughter animals ante-mortem

Specific Outcome 2.1: Prepare and plan to handle slaughter animals
Specific Outcome 2.2: Identify and sort animals
Specific Outcome 2.3: Care of animals
Specific Outcome 2.4: Complete ante mortem handling activities

3. TITLE: Prepare animals for slaughter

Specific Outcome 3.1: Plan and prepare the stunning area
Specific Outcome 3.2: Perform stunning and bleeding process
Specific Outcome 3.3: Perform electrical stimulation
Specific Outcome 3.4: Complete stunning and bleeding process

4. TITLE: Handle red offal

Specific Outcome 4.1: Plan the handling process
Specific Outcome 4.2: Perform handling process of red offal
Specific Outcome 4.3: Complete handling process

5. TITLE: Handle rough offal

Specific Outcome 5.1: Plan the handling of rough offal
Specific Outcome 5.2: Perform handling process of rough offal
Specific Outcome 5.3: Complete the handling process of rough offal

6. TITLE: Process offal

Specific Outcome 6.1: Plan offal processing
Specific Outcome 6.2: Perform packaging and weighing
Specific Outcome 6.3: Perform offal freezing process
Specific Outcome 6.4: Perform offal dispatch
Specific Outcome 6.5: Complete offal processing

7. TITLE: Basic handling of condemned material

Specific Outcome 7.1: Plan the handling process of condemned material

Specific Outcome 7.2: Perform handling of condemned material

Specific Outcome 7.3: Complete the handling process of condemned material

8. TITLE: Handle effluent

Specific Outcome 8.1: Plan the handling of effluent

Specific Outcome 8.2: Perform handling of effluent

Specific Outcome 8.3: Complete the handling of effluent

9. TITLE: Handle hides and skins

Specific Outcome 9.1: Plan the handling of hides and skins

Specific Outcome 9.2: Complete the handling of hides and skins

10. TITLE: Chill and dispatch carcasses

Specific Outcome 10.1: Plan work task

Specific Outcome 10.2: Perform weighing process

Specific Outcome 10.3: Perform carcass chilling process

Specific Outcome 10.4: Perform dispatch of carcass

Specific Outcome 10.5: Complete weighing, chilling and dispatch process

11. TITLE: Count incisors

Specific Outcome 11.1: Plan and prepare to count teeth

Specific Outcome 11.2: Perform counting of teeth

Specific Outcome 11.3: Complete counting

National Certificate: General Abattoir Processes at NQF level 2										
	NQF Level 1	ID No	Credit	NQF Level 2	ID No	Credit	NQF Level 3	ID No	Credit	Total
Fundamental				Maintain and adapt oral communication	8962	5				
				Access and use information from texts	8963	5				
				Write for a defined context	8964	5				
				Use language and communication in occupational learning programmes	8967	5				
				Language/Communication		20				20
				Demonstrate an understanding of rational and irrational numbers and number systems within the context of relevant calculations	8982	3				
				Use mathematics to investigate and monitor the financial aspects of personal and community life	7469	2				
				Apply basic knowledge of statistics and probability to influence the use of data and procedures in order to investigate life related problems	9009	3				
				Identify, describe, compare, classify, explore shape and motion in 2 and 3 dimensional shapes in different contexts	9008	3				
				Collect and use data to establish basic statistical and probability models and solve related problems	7467	5				
			Mathematics/Numeracy		16				16	
Core	Handle effluent		2	Perform basic first aid	12483	4				
	Handle slaughter animals ante-mortem		8	Handle and maintain utensils and equipment	7717	2				
	Prepare animals for slaughter		8	Maintain occupational health and safety	8493	2				
	Handle red offal		4	Basic introduction to the abattoir industry		3				
	Count incisors		8	Handle rough offal		4				
				Process offal		4				
				Basic handling of condemned material		4				
				Handle hides and skins		2				
				Chill and despatch carcasses		4				
			30			29				59
Elective				Care for electronic equipment and measuring instruments	8187	4	Sanitation and sterilisation	7199	5	
				Understand and deal with HIV/Aids	12463	3	Foster and maintain customer relations	113847	10	
							Apply basic business principles	8000	9	
							Describe the management functions in an organisation	13913	6	
						7			30	25
Minimum total for Qualification = 120 (minimum of 25 credits from elective learning)										