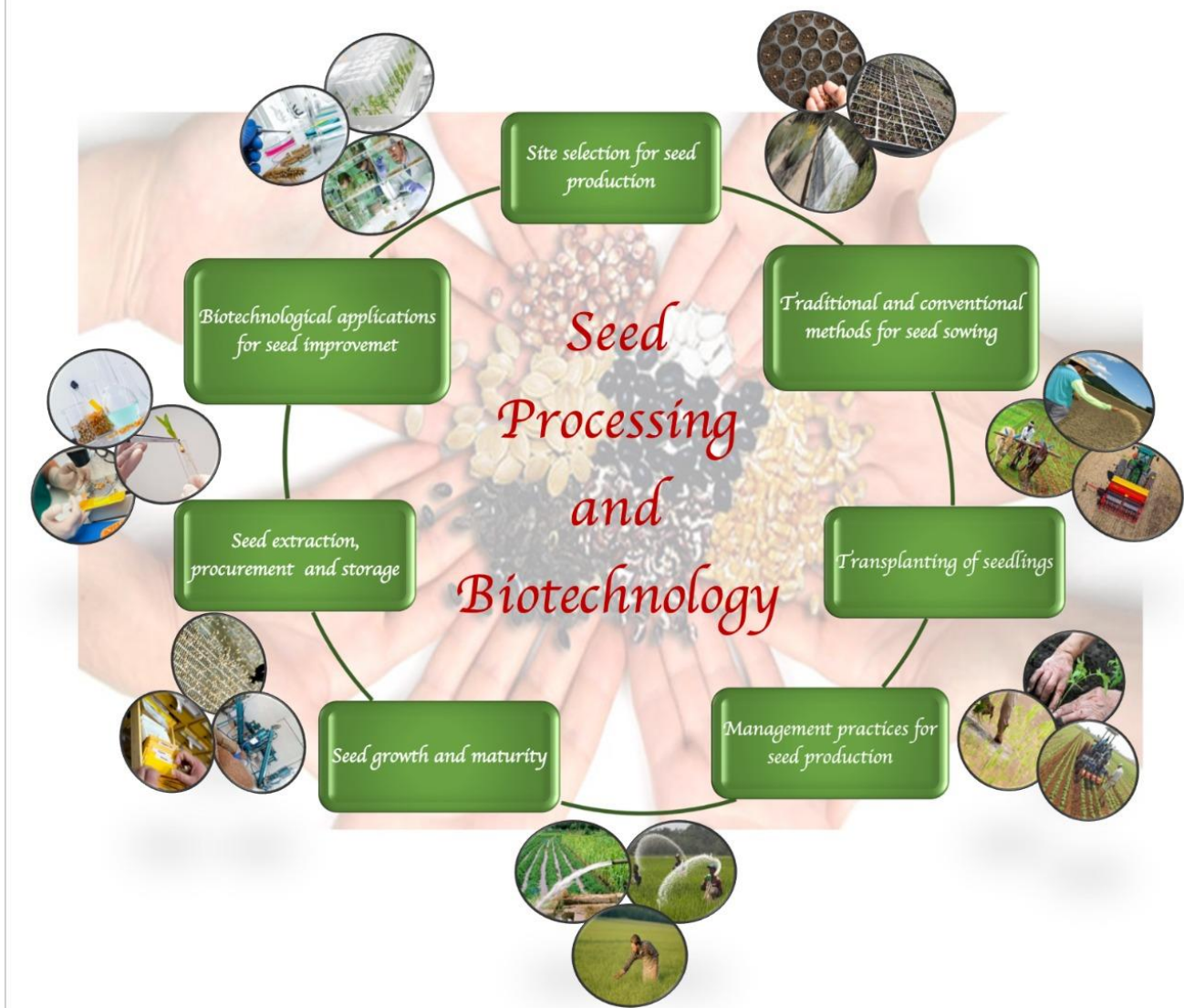




National Competency Standards Level-5 For "Seed Processing & Biotechnology" (Seed Processing Plant Technician)





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- *Mr. Naeem Siddique, Director General (Skills Standards and Curricula) NAVTTC*
- *Mr. Sikandar Masood, Director (Skills Standards and Curricula), NAVTTC*
- *Mr. Muhammad Ishaq, Deputy Director (Skills Standards and Curricula), NAVTTC*
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NAVTTC team under the supervision of Dr. Nasir Khan, Executive Director, NAVTTC, initiated development of CBT & A based qualifications for 200 traditional / hi-tech trades under the Prime Minister "skill for all" Program.

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Table of Contents

1. Introduction	4
2. Purpose of the Qualification.....	5
3. Leveling of Core Competencies of the Qualification	5
4. Date of Validation	5
5. Date of Review.....	6
6. Codes of Qualifications	6
7. Members of Qualification Development Committee	7
8. Members of Qualification Validation Committee.....	8
9. Entry Requirements	8
10. Detail of Competency Standards	9
Seed Processing Plant Technician.....	9
0811SP&B04-A: Operate Advance Seed Processing Machineries	9
0811SP&B04-B: Perform Seed Quality Test	12
811SP&B04-C: Perform Seed Packaging and Storage	15
C811SP&B04-D: Prepare Plantlets by Tissue Culture Tehnique	20
C811SP&B04-E: Maintain Inventory for Seed Processing	20
0811SP&B04-F: Manage and Supervise the Job Activities	23
0811SP&B04-G: Develop Entrepreneurial Skills	26
0811SP&B04-H: Practice Professionalism.....	28



1. Introduction

Pakistan has a semi-industrialized economy with a well-integrated agriculture sector. The agriculture sector contributes 18.5 percent to the country's GDP. Despite its impressive and continuously growing agricultural production, the country is still facing high levels of food insecurity. The global community, through the Sustainable Development Goals, has committed to achieving a world free of hunger by 2030. This will require the sustained production of about 60 percent more food than at present, food that is both nutritive and innocuous, and produced in ways that do not mutilate the environment. Under most scenarios, there are no surplus land or water resources to deploy to increase agricultural production. In fact, the most sustainable path to this goal is through enhanced productivity in a sustainable way. That means producing more yield with fewer external inputs. To support this, farmers need to use well-adapted crop varieties. A country's seed delivery system is best conceived as a value chain composed of interrelated components – from the development of well-adapted and nutritious crop varieties and their adoption by farmers, through the production and distribution, including sales of quality seeds and planting materials and to on-farm utilization of these inputs by farmers. The effective functioning of the value chain, enabled by the applicable national seed laws, policies, strategies, action plans and regulations, depends largely on the extent to which the stakeholders are able to put into practical use the relevant knowledge and skills required for producing quality seeds and planting materials. Seeds coming from the field after harvest usually contain undesirable materials which must be removed during processing to obtain clean seed suitable for planting. Seed enterprises often acquire specialized equipment for processing their seed, and they need technical guidance on the effective use and maintenance of the various pieces of equipment in order to enhance performance, minimize breakdowns and ensure prolonged machine life. A scientific knowledge of Biotechnology plays a key role in improving quality of seed which will be available to farmers by facilitating them with new ways to combat weeds, insects and other agronomic challenges, and produce more food, feed and fuel to better fulfil customer requirements. Biotechnology helps agriculture sector by following more sustainable approach, both economically and environmentally.

Therefore, the importance of knowledge related to seed processing and biotechnology through the latest techniques makes this diploma more valuable. Market demands for qualified workers are therefore a need of time and can only be addressed by developing specific skills standards in partnership with all stakeholders and industry experts. Recognizing this fact, the National Vocational and Technical Training Commission (NAVTTTC) has developed the National Vocational Qualifications Framework (NVQF) for seed processing and biotechnology. These competency standards have been developed by the Qualification Development Committee (QDC) and validated by the



Qualification Validation Committee (QVC) with representation from the country's leading departments, NPSL, FAS, PU Lahore, UVAS, UAF, PCSIR and ARI KPK.

2. Purpose of the Qualification

The aim of this qualification is to set high and applicable professional standards for all stake holders in agriculture sector. The basic goals of establishing these credentials are as follows:

1. Equip with the latest Seed processing techniques
2. Improve trainees' professional competence
3. Provide opportunities for recognition of non-formal or informal skills
4. Raise standard and efficacy of scientific training and assessment
5. Improve crop production through the best management skills
6. Enable the existing workforce to learn new technologies and methods
7. Producing a skilled workforce for off-season vegetable production

3. Leveling of Core Competencies of the Qualification

Code	Competency Standard	Category	Level	Credit
0811SP&B04-A	Operate Advance Seed Processing Machineries	Technical	5	24
0811SP&B04-B	Perform Seed Quality Test	Technical	5	22
0811SP&B04-C	Perform Seed Packaging and Storage	Technical	5	08
0811SP&B04-D	Maintain Inventory for Seed Processing	Technical	5	04
0811SP&B04-E	Prepare Plantlets by Tissue Culture Technique	Technical	5	20
0811SP&B04-F	Manage and Supervise the Job Activities	Technical	5	08
0811SP&B04-G	Develop Entrepreneurial Skills	Generic	5	04
0811SP&B04-H	Practice Professionalism	Generic	5	30

4. Date of Validation

The level 4 of National qualification on Seed processing & Biotechnology has been validated by the Qualifications Validation Committee (QVC) members on June 21-25, 2021 at PITAC, Lahore and will remain valid for ten years i.e., **25 June, 2031**



5. Date of Review

The level 4 of National qualification on Seed processing & Biotechnology has been validated by the Qualifications Validation Committee (QVC) members on June 21-25, 2021 at PITAC, Lahore and shall be reviewed after three years i.e., 24-06-2024.

6. Codes of Qualifications

The International Standard Classification of Education (ISCED) is a framework for assembling, compiling and analyzing cross-nationally comparable statistics on education and training. ISCED codes for these qualifications are assigned as follows:

ISCED Classification for Seed Processing & Biotechnology Level 5	
ISCED Code	Description
Seed Processing Plant technician (Level 5)	
0811SP&B04-A	Operate Advance Seed Processing Machineries
0811SP&B04-B	Perform Seed Quality Test
0811SP&B04-C	Perform Seed Packaging and Storage
0811SP&B04-D	Maintain Inventory for Seed Processing
0811SP&B04-E	Prepare Plantlets by Tissue Culture Technique
0811SP&B04-F	Manage and Supervise the Job Activities
0811SP&B04-G	Develop Entrepreneurial Skills
0811SP&B04-H	Practice Professionalism



7. Members of Qualification Development Committee

The following members participated in the qualification development process on 26th to 30th April 2021 at PITAC, Lahore.

S#	Name	Designation
1.	Mr. Awais Waheed	Research Associate, Agronomy Department, AU Rawalpindi.
2.	Dr. Sumaira Maqsood	Assistant Professor – Faculty of Agricultural Sciences, PU Lahore
3.	Mr. Amir Rehman	Assistant Director, KPK Seed Corporation, Peshawar KPK.
4.	Mr. Adnan Zahid	Lecturer – Faculty of Agricultural Sciences, PU Lahore
5.	Ms. Hina Ashraf	PhD Scholar – Faculty of Agricultural Sciences, PU Lahore
6.	Mr. Muhammad Abdul Basit	Fast Agro Chemicals, Lahore
7.	Ms. Noor ul Ain	M.phil Scholar, Lahore
8.	Mr. Umair Khan	Plant Breeding & Genetics Expert, Tara Group Lahore
9.	Mr. Muhammad Asif	Master Trainer(Agriculture Sector), Lahore
10.	Mr. Muzammil Usman Khan	Green Lands Pvt Ltd Lahore
11.	Hafiz Muhammad Waqas Amjad	Green Gold Agri Seed Pvt Ltd Lahore
12.	Mr. Muhammad Ahmad	Mercury Seeds Lahore
13.	Ms. Samia Amir Hamza	M.Phil. Scholar, GCU Faisalabad
14.	Engr. Danish Khan	DACUM Facilitator
15.	Mr. Muhammad Ishaq	Deputy Director/ Coordinator –(Skills Standards and Curricula) NAVTTC HQ



8. Members of Qualification Validation Committee

The following members participated in the qualification validation process on 12-01-2021 to 16-01-2021 at PITAC, Lahore.

S#	Name	Designation
1.	Mr. Awais Waheed	Research Associate, Agronomy Department, AU Rawalpindi.
2.	Dr. Sumaira Maqsood	Assistant Professor – Faculty of Agricultural Sciences, PU Lahore
3.	Mr. Amir Rehman	Assistant Director, KPK Seed Corporation, Peshawar KPK.
4.	Mr. Muhammad Abdul Basit	Fast Agro Chemicals, Lahore
5.	Ms. Hina Ashraf	PhD Scholar – Faculty of Agricultural Sciences, PU Lahore
6.	Hafiz Muhammad Waqas Amjad	Green Gold Agri Seed Pvt Ltd Lahore
7.	Ms. Samia Amir Hamza	M.Phil. Scholar, GCU Faisalabad
8.	Mr. Muhammad Hashim	Training and Development Officer, Agrilla Seeds Faisalabad
9.	Mr. Shoukat Ali Rana	PBTE, Representative
10.	Mr. Liaqat Ali Jamhro	Director S-TEVTA
11.	Mr. Mushtaq Ahmad	Dy. Director Training, P-TEVTA Representative
12.	Ms. Hadia Maqsood	Faculty of Agricultural Sciences, PU Lahore
13.	Ms. Noor ul Ain	M.Phil. Scholar, Lahore
14.	Engr. Danish Khan	DACUM Facilitator
15.	Mr. Muhammad Ishaq	Deputy Director/ Coordinator – (Skills Standards and Curricula) NAVTTC HQ

9. Entry Requirements

The entry requirement for this qualification would be SSC.



10. Detail of Competency Standards

Seed Processing Plant Technician

0811SP&B04-A: Operate Advance Seed Processing Machineries

Overview: This competency standard covers the skills and knowledge required to operate advance seed processing machineries.

Competency Units	Performance Criteria
CU1. Perform Pre-checks	P1. Arrange tools/equipment P2. Perform sanitization of tools P3. Calibrate required tools and equipment P4. Perform trouble shooting P5. Follow standard safety checks before and after use of machinery.
CU2. Maintain Cleanliness of machinery	P1. Arrange tools and equipment P2. Perform cleanliness of required machinery P3. Maintain hygienic conditions of workplace
CU3. Execute seed processing operations	P1. Operate seed Separator according to SOPs P2. Operate Color grader according to SOPs P3. Operate seed polishing machines according to SOPs P4. Operate seed treatment machines according to SOPs P5. Operate seed packaging machines according to SOPs P6. Follow health and safety guidelines P7. Maintain records

Knowledge & Understanding.

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1.** Understanding of tools and equipment
- K2.** Knowledge of cleaning methods of seed processing machineries



K3. Health and safety principles involved in operations

Critical Evidence(s) Required

The candidate needs to produce the following critical evidence(s) in order to be competent in this competency standard:

- Operating of Seed Processing machineries
- Perform cleanliness of seed processing machineries

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
1.	Notebooks
2.	Pencils
3.	Erasers
4.	Sharpeners
5.	White board marker
6.	Duster
7.	White board
8.	PPES
9.	Multimedia
10.	Computer
11.	Scalper
12.	Dehumidifier
13.	Grain separator cleaning machine
14.	Sheller
15.	Air classifier
16.	Dehullers
17.	Management and maintenance tools
18.	Destoner
19.	Seed sorter
20.	Color sorting machine
21.	Seed treatment machines
22.	Packaging machines
23.	Seed scalper
24.	De-breader
25.	Sacrifier



National Competency Standards for "Seed Processing & Biotechnology"



26.	Screen cleaner
27.	Vibratory separator
28.	Spiral superb
29.	Disc intuited
30.	Electronic separator
31.	Inclined separator
32.	Magnetic separator
33.	Roll milling
34.	Gravity separator
35.	Magnetic separator
36.	Friction cleaner
37.	Drum pre cleaner
38.	Air screen cleaner with gravity table.
39.	Polishing machine bean & grain
40.	Color separator
41.	Corn germ extraction machine.
42.	Peeling machine
43.	Air suction separator



0811SP&B04-B: Perform Seed Quality Test

Overview: This competency standard covers the skills and knowledge required to perform seed quality test.

Competency Units	Performance Criteria
CU1. Prepare for quality test	P1. Collect sample for testing P2. Prepare sample according to required quality test P3. Follow health and safety guidelines P4. Maintain records
CU2. Perform germination test	P1. Arrange tools and equipment P2. Perform warm germination test P3. Perform sand germination test P4. Perform Tetrazolium (TZ) test P5. Perform Soak test P6. Perform blotter paper test P7. Perform agar plate test P8. Maintain Records
CU1. Perform Pathogenicity test	P1. Arrange tools and equipment P2. Perform ELISA test P3. Maintain Records
CU2. Perform Vigor test	P1. Arrange tools and equipment P2. Perform seed vigor test according to method P3. Maintain Records
CU3. Perform Moisture determination test	P1. Arrange tools and equipment P2. Evaluate moisture content in seed according to standard test method P3. Maintain Records

Knowledge & Understanding.

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1.** Understanding collection methods of seed sampling
- K2.** Understanding of seed testing methods
- K3.** Understanding various Seed moisture determination tests and its types
- K4.** Compilation of various Seed Quality Test Results
- K5.** Health and safety principles involved in operations.



Critical Evidence(s) Required

The candidate needs to produce the following critical evidence(s) in order to be competent in this competency standard:

- Perform examination of operating machines
- Adhere to safety standard involved in process.

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
1.	Notebooks
2.	Pen
3.	White board marker
4.	Duster
5.	Tetrazolium solution
6.	Germination Paper
7.	Germination Towel
8.	Wire mesh
9.	Tight jar
10.	Muslin cloth
11.	Sandmarker brick gravel of 2-3 mm size
12.	Field soil
13.	White board
14.	Multimedia
15.	Internet
16.	Computer system
17.	Accelerated aging chamber
18.	Equipment for germination test
19.	Aluminiumtray
20.	Management and maintenance tools
21.	Constant temperature precision hot-air electric oven.
22.	Weighing balance
23.	Plastic tray
24.	Aging tray
25.	Incubator



National Competency Standards for "Seed Processing & Biotechnology"



26.	Growth chamber
27.	ELIZA Kits
28.	Micro pipettes
29.	Tips
30.	ELIZA reader
31.	ELIZA plates
32.	ELIZA equipment
33.	Conductivity meter
34.	Germination box
35.	Germination box
36.	Aluminum trays
37.	Sand marker
38.	Germinators
39.	Accelerated
40.	Hot air electric oven
41.	Distillation chamber
42.	Tongs
43.	Desiccator
44.	PPES



0811SP&B04-C:Perform Seed Packaging and Storage

Overview: This competency standard covers the skills and knowledge required to perform seed packaging and storage.

Competency Units	Performance Criteria
CU1. Prepare for packaging	P1. Arrange tools and equipment/machinery for packaging P2. Perform pre-checks of packing machines P3. Follow safety standard checks.
CU2. Execute seed packaging	P1. Arrange packaging material according to work instructions Collect quality test reports Arrange processed seed for packaging P2. P3. Perform packaging operation according to work instructions P4. Follow safety standard checks for pre and post packaging. P5. Maintain Records
CU3. Perform Labeling of processed seeds	P1. Arrange material for labeling P2. Collect quality data reports P3. Prepare label according to work instructions P4. Execute labeling method P5. Maintain Records
CU4. Perform storage of seed	P1. Arrange materials required for storage P2. Execute storage operation according to standard requirements P3. Maintain records
CU5. Handle storage commodities	P1. Maintain microclimatic condition according to storage requirements P2. Perform periodic checks for contamination/spillage P3. Execute periodic pest control measure P4. Follow safety requirements P5. Maintain records

Knowledge & Understanding.

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

K1 Understanding pre-checks for packaging machinery



- K2 Understanding of Seed quality test reports
- K3. Knowledge of packaging material
- K4. Understanding of Record Maintenance
- K5. Understanding of Seed Labelling

Critical Evidence(s) Required

The candidate needs to produce the following critical evidence(s) in order to be competent in this competency standard:

- Perform Pre-checks of packaging machinery
- Prepare seed quality test reports
- Perform seed packaging
- Perform seed labelling

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
1.	Notebooks
2.	Erasers
3.	Sharpeners
4.	White board marker
5.	Duster
6.	PPEs
7.	Seed
8.	White board
9.	Multimedia
10.	Internet
11.	Computer
12.	Filling Machines
13.	Sealers
14.	Management and maintenance tools
15.	Strapping/Bundling Machines
16.	Stretch Wrapping Machines
17.	Air Pillow Machines
18.	Flow wrapper
19.	Strapping Machine



National Competency Standards for "Seed Processing & Biotechnology"



20.	Accumulator
21.	Bag openers
22.	Capping Machine
23.	Valve bagger machine
24.	Compression bagger
25.	Vaccume sealer
26.	Seed Packaging material
27.	Seed
28.	Labels
29.	Permanent markers
30.	Thread and needle
31.	Storage bag
32.	Polyethylene
33.	Storage chamber
34.	Air tight jars
35.	Thermometer
36.	Hygrometer
37.	Sprayers
38.	Thermometer



0811SP&B04-D: Maintain Inventory for Seed Processing

Overview: This competency standard covers the skills and knowledge required to perform documentation and record keeping of seed processing

Competency Units	Performance Criteria
CU1. Maintain Inventory register	P1. Maintain stock registers of seed lot as per standard format. P2. Maintain cash book on prescribed format. P3. Maintain fixed assets register as per prescribed format. P4. Maintain raw and processed seed registers according to standard format.
CU2. Maintain daily performance report	P1 Maintain seed register. P2 Check quantity of raw seed received from field. P3 Maintain record of the following. <ul style="list-style-type: none">• Initial moisture of raw seed• Record of dried lots• Final moisture level of the dried lots• Quantity of raw seed processed.• Quality of processed seed obtained. P4 Maintain Processing register mentioning the time of starting and closing of the processing machines. P5 Maintain register of seed treatments.

Knowledge & Understanding.

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1.**Understanding importance of Inventory register
- K2.**Understanding importance of fixed asset register
- K3.** Maintenance of daily performance record
- K4.**Record keeping



Critical Evidence(s) Required

The candidate needs to produce the following critical evidence(s) in order to be competent in this competency standard:

- Perform maintenance of stock register
- Practice maintenance of Cash book and fixed asset register
- Practice to maintain register of seed treatment

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
1.	Notebooks
2.	Erasers
3.	Pencil
4.	Sharpeners
5.	White board marker
6.	Duster
7.	PPEs
8.	Inventory register
9.	Stock register
10.	Cash book
11.	Erasers
12.	White board
13.	Multimedia
14.	Internet
15.	Computer system
16.	Calculator
17.	Inventory register
18.	Stock register



0811SP&B04-E: Prepare Plantlets by Tissue Culture Technique

Overview: This competency standard covers the skills and knowledge required to understand preparation of plantlets by tissue culture technique.

Competency Units	Performance Criteria
CU1. Prepare the stock solution	P1. Arrange the glassware & chemicals P2. Prepare Macronutrient stock solution P3. Prepare Micronutrient stock solution P4. Prepare Vitamin stock solution P5. Prepare Hormones stock solution
CU2. Prepare media	P1. Prepare plan for working P2. Prepare stock solution as per plan P3. Prepare media according to SOPs P4. Maintain the record P5. Follow health and safety guidelines
CU3. Perform sterilization	P1. Arrange tools and equipment P2. Perform sterilization of glassware's P3. Perform sterilization of plastic wares P4. Perform sterilization of tools and equipment P5. Perform sterilization of stock solution P6. Perform sterilization of media P7. Follow health and safety guidelines
CU4. Perform tissue culturing	P1. Arrange tools and equipment P2. Prepare explants for inoculation P3. Perform Inoculation and establish primary cultures P4. Perform sub cultures for shoot multiplication P5. Follow health and safety guidelines
CU5. Perform acclimatization	P1. Arrange acclimatize materials P2. Prepare plantlets for acclimatization P3. Perform acclimatization and hardening of plantlets according to SOP P4. Follow health and safety guidelines



Knowledge & Understanding.

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1.** Understanding of stock solution
- K2.** Micro and macronutrient stock solution
- K3.** Vitamin stock solution
- K4.** Hormones stock solution
- K5.** Media preparation
- K6.** Tissue culture media
- K7.** Sterilization process
- K8.** Understanding of hardening of plantlets

Critical Evidence(s) Required

The candidate needs to produce the following critical evidence(s) in order to be competent in this competency standard:

- Perform media preparation
- Prepare stock solution
- Perform tissue culture
- Perform sterilization
- Perform hardening and acclimatization
- Adhere to safety standard involved in process

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
19.	Notebooks
20.	Erasers
21.	Sharpeners
22.	White board marker
23.	Duster
24.	PPEs
25.	Pencils
26.	Glassware
27.	Chemicals



National Competency Standards for "Seed Processing & Biotechnology"



28.	Plant growth Regulator
29.	Macro/Micronutrients
30.	Autoclave
31.	Dry heat ovens
32.	Media ingredient
33.	Deionized water
34.	Tissue culture lab equipments



0811SP&B04-F: Manage and Supervise the Job Activities

Overview: This competency standard covers the skills and knowledge required to manage and supervise the job activities

Competency Units	Performance Criteria
<p>CU1.Plan for on-site operations</p>	<p>P1. Consult with the client to obtain required information</p> <p>P2. Prepare SOPs in accordance with the identified requirements.</p> <p>P3. Prepare the process flow diagram in order to achieve Quality outcome.</p> <p>P4. Break down work of activities into small achievable components and efficient sequences</p> <p>P5. Recognize site hazards and the personal protective equipment (PPE) and safety procedures specified for job</p> <p>P6. Organize site induction for support personnel as required</p> <p>P7. Plan housekeeping activities prior to and post completion of work</p>
<p>CU2.Supervise work activities to achieve desired results</p>	<p>P1.List and arrange required resources prior to commencement of work</p> <p>P2. Recognize the areas of work which could result in a delay of work, wastage of material or damage to tools.</p> <p>P3. Allocate responsibility to required team members to avoid conflicts</p> <p>P4. Review work plan in response to new information, urgent requests, changed situations or instructions from concern personnel</p> <p>P5. Cooperate with team members to achieve common goals</p>



<p>CU3. Perform on- site inspection</p>	<p>P1. Conduct inspection of processes & materials according to inspection plan</p> <p>P2. Identify defects and deficiencies in product & processes</p> <p>P3. Record defects and deficiencies with evidence in product & processes (if required)</p> <p>P4. Perform test as per standard procedure for determining the physical properties of materials and product.</p> <p>P5. Collect the samples of materials & products for lab testing as per standards</p> <p>P6. Complete the sampling document as per requirement</p> <p>P7. Check the actions taken for rectification of snag list</p> <p>P8. Record the non-compliance and expected breaches of contract as per SOPs</p>
<p>CU4. Prepare the inspection report.</p>	<p>P1. Collect and review the information relevant to inspection activities for recoding in section results</p> <p>P2. Verify the integrity of information supplied by other party as a part of the inspection process</p> <p>P3. Record inspection observations and findings</p> <p>P4. Recommend the necessary corrective actions for tackling the identified problems</p>

Knowledge & Understanding.

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1.** Principles of planning project management
- K2.** On site supervision
- K3.** In site supervision
- K4.** Documentation and record system



K5. Understanding about third/other party inspection process

K6. Reporting standards

K7. Standard operating procedures for required task

K8. Health and safety principles involved in operations

Critical Evidence(s) Required

The candidate needs to produce the following critical evidence(s) in order to be competent in this competency standard:

- Perform seed inspection
- Perform onsite inspection
- Perform in site inspection
- Prepare the inspection report with respect to standards
- Adhere to safety standard involved in process

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
1.	Notebooks
2.	Pencils
3.	Erasers
4.	Sharpener
5.	White board marker
6.	White board
7.	Multimedia
8.	First Aid kits
9.	PPEs



0811SP&B04-G:Develop Entrepreneurial Skills

Overview: This competency standard covers the skills and knowledge required to develop entrepreneurial skills.

Competency Units	Performance Criteria
CU1. Develop a business plan	P1. Conduct market survey to collect information P2. Select the best option in terms of cost, service, quality, sales, profit margin, overall expenses P3. Compile the information collected through the market survey, in the business plan format
CU2. Collect information regarding funding sources	P1. Identify the available funding sources based on their terms and conditions, maximum loan limit, payback time, interest rate P2. Choose the best available option according to investment requirement P3. Prepare documents according to the loan agreement requirement P4. Include the information of funding sources in the business plan
CU3. Develop a marketing plan	P1. Collect information required to devise marketing plan Prepare marketing plan for new business
CU4. Develop basic business communication skills	P1. Communicate with internal customers and external customers : P2. Use different modes of communication to communicate internally and externally e.g.: presentation, speaking, writing, listening, visual representation, reading etc. P3. Use specific business terms used in the market

Knowledge & Understanding.



The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1. Market survey
- K2. Elements of business plan
- K3. Filling business plan format
- K4. Funding sources
- K5. Product promotion policy
- K6. 7 Ps of marketing
- K7. 7Cs of business communication
- K8. Human resource strategy plan.
- K9. Health and safety principles involved in operations.

Critical Evidence(s) Required

The candidate needs to produce the following critical evidence(s) in order to be competent in this competency standard:

- Prepare loan documents
- Conduct market survey
- Practice Marketing strategy for product promotion

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:

S. No.	Items
1.	Notebooks
2.	Pencils
3.	Erasers
4.	Sharpener
5.	White board marker
6.	White board
7.	Multimedia
8.	



0811SP&B04-H: Practice Professionalism

Overview: This competency standard covers the skills and knowledge required to develop portfolio for industry and can perform internship

Competency Units	Performance Criteria
Cu1. Develop Portfolio for industry	P1. Select previous assignments for portfolio P2. Work on previous selected assignments for portfolio P3. Compile variety of assignments for portfolio P4. Make Professional Portfolio for industry P5. Develop Digital Portfolio for industry
CU2. Perform internship	P1. Prepare for internship <ul style="list-style-type: none">• Personal Presentation• Portfolio Presentation P2. Interview preparation P3. Demonstrate Ethics for Internship P4. Identify Industry for internship P5. Perform Internship in Industry <ul style="list-style-type: none">• Fill the Performance of Internship P6. Report the performance of internship

Knowledge & Understanding.

The candidate must be able to demonstrate underpinning knowledge and understanding required to carry out tasks covered in this competency standard. This includes the knowledge of:

- K1. Styles and format of portfolio
- K2. Ethics for work/internship

Critical Evidence(s) Required

The candidate needs to produce the following critical evidence(s) in order to be competent in this competency standard:

- Practice of presentation
- Prepare CV for internship
- Prepare report on performance of internship
- Perform internship

TOOLS AND EQUIPMENT

The tools and equipment required for this competency standard are given below:



National Competency Standards for "Seed Processing & Biotechnology"



S. No.	Items
1.	Notebooks
2.	Pencils
3.	Erasers
4.	Sharpener
5.	White board
6.	Multimedia

