



# NATIONAL OCCUPATIONAL STANDARD FOR SENIOR AGRICULTURE OFFICER



NOS.SAO.01  
FIRST EDITION



## APPROVING AUTHORITY

This National Occupational Standard has been prepared and published under the authority of the Zambia Qualifications Authority Board on 30<sup>th</sup> September, 2020.

## ZAMBIA QUALIFICATIONS AUTHORITY

The Zambia Qualifications Authority Act No. 13 of 2011 was enacted by the Government of the Republic of Zambia to ***“provide for the development and implementation of a national qualifications framework; establish the Zambia Qualifications Authority; provide measures to ensure that standards and registered qualifications are internationally comparable; and provide for matters connected with, or incidental to the foregoing”***. Among other functions, ZAQA is responsible for *determining national standards for any occupation*, through various sector specific National Occupational Standards Development Teams (NOSDTs).

## REVISION OF NATIONAL OCCUPATIONAL STANDARDS

National Occupational Standards shall be revised every after **5 years**, or whenever necessary, by the issue of either amendments or of revised editions. It is important that users of National Occupational Standards (NOS) should ascertain that they are in possession of the latest amendments or editions.

## NOS DEVELOPMENT TEAM RESPONSIBLE

This National Occupational Standard was prepared by the Agriculture National Occupational Standards Development Team, upon which the following organisations were represented:

1. Ministry of Agriculture (MoA);
2. Zambia Agriculture Research Institute (ZARI);
3. Zambian Forum for Agricultural Extension and Advisory Services (ZAFAAS);
4. University of Zambia (UNZA);
5. Zambian Aquaculture Cooperative Society (ZACOSO);
6. Natural Resources Development College (NRDC);
7. Aquaculture Development Association of Zambia (ADAZ);
8. Zambia Qualifications Authority (ZAQA) – Secretariat.

## ACKNOWLEDGEMENT

The Zambia Qualifications Authority would like to acknowledge the invaluable support of the following stakeholders that participated in the development of this National Occupational Standard:

1. Mr. Katupa Chongo (Ministry of Agriculture);
2. Dr. Batischeba Tembo (Zambia Agriculture Research Institute);
3. Mr. Vincent M. Akamandisa (Zambian Forum for Agricultural Extension and Advisory Services);
4. Dr. Wilson Mwenya (University of Zambia);
5. Mr. Freznarnd Simfukwe (Zambian Aquaculture Cooperative Society);
6. Mr. Masautso E. Sakala (Natural Resources Development College);
7. Mr. Baldwin Chibuta (Aquaculture Development Association of Zambia).

The Authority wishes to also acknowledge the efforts of all stakeholders that took time to review and submit comments on this NOS and those that participated in the national validation process.

## TABLE OF CONTENTS

FOREWORD.....	iv
ACRONYMS AND ABBREVIATIONS.....	v
GLOSSARY OF TERMS.....	vi
1. OVERVIEW.....	1
2. SCOPE.....	2
3. PERSONAL ATTRIBUTES (VALUES, ETHICS AND ATTITUDES).....	2
4. UNITS AND ELEMENTS .....	2
5. EQUIPMENT, TOOLS AND CONSUMABLE MATERIALS.....	28
6. DILEMMAS/CHALLENGES AND COMPLEXITIES FOR A JOB HOLDER.....	28
7. WORKING CONDITIONS/ENVIRONMENT .....	28
8. PARTIES INVOLVED/INTERACTING WITH THE JOB HOLDER OR TRAINEE.....	29
9. PHYSICAL DEMANDS ON THE BODY .....	29
ANNEX A.....	30
ANNEX B.....	31
NOS Version Control .....	31

## FOREWORD

The Zambia Qualifications Authority (ZAQA) is a statutory body under the Ministry of Higher Education established by ZAQA Act No. 13 of 2011 to “**provide for the development and implementation of a national qualifications framework; provide measures to ensure that standards and registered qualifications are internationally comparable; and provide for matters connected with, or incidental to the foregoing**”.

Among other functions, ZAQA is responsible for “*determining national standards for any occupation*”, through various sector specific National Occupational Standards Development Teams (NOSDTs) of experts composed of representation from appropriate authorities, government departments, industry, academia, regulators, consumer associations and non-governmental organisations, etc.

This National Occupational Standard (NOS) has been developed by the Agriculture National Occupational Standards Development Team in accordance with the procedures and guidelines of ZAQA. All users should ensure that they have the latest edition of this publication as National Occupational Standards are revised from time to time.

This NOS shall be used by, among others, industry, employers, quality assurance bodies, awarding and professional bodies and education and training institutions, as a benchmark to identify training needs, develop job profiles/descriptions, develop curricula and learning programmes, in various sectors where the occupation exists. In the Agriculture sector, demonstration of competence against this NOS may be required in order to run a business or practice a craft or profession.

The role of Senior Agriculture Officer is invaluable in teaching farmers how to improve their productivity and uplifting their livelihoods. The Senior Agriculture Officer works with the research and development team to market and transfer the technology, products, knowledge and information to the farmers, acting as a bridge between the company and farmers, thereby aiding in increasing their productivity and profitability.

This National Occupational Standard highlights core knowledge, skills, competences and personal attributes that Senior Agriculture Officers must possess to be successful in their work roles.



---

**Mirriam M. A Chiyaba (Mrs)**  
**Director and Chief Executive Officer**

## ACRONYMS AND ABBREVIATIONS

CS	Core Skill
NOS	National Occupational Standard
NOSDT	National Occupational Standards Development Team
OK	Organisational Knowledge
PC	Performance Criteria
PS	Professional Skill
RPL	Recognition of Prior Learning
TK	Technical Knowledge
SAO	Senior Agriculture Officer
ZAQA	Zambia Qualifications Authority
ZQF	Zambia Qualifications Framework

## GLOSSARY OF TERMS

For the purposes of this NOS, the following terms and definitions shall apply:

**Core Skills/Generic Skills:** are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the NOS, these include communication related skills that are applicable to most job roles.

**Function:** is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of NOS.

**Job Role:** defines a unique set of functions that together form a unique employment opportunity in an organisation.

**Knowledge and Understanding:** are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.

**National Occupational Standards (NOS):** are statements of the standards of performance individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding. They are precise descriptions of what an individual is expected to be able to do in his/her work role.

**National Occupational Standards (NOS) Code:** is a unique reference code that identifies a NOS.

**National Occupational Standards Development Team (NOSDT):** means an established group of national stakeholders/experts responsible for the development of National Occupational Standards within a specific economic sector or occupation.

**Occupation:** is a set of job roles, which perform similar/related set of functions in an industry.

**Organisational Context:** includes the way the organisation is structured and how it operates, including the extent of operative knowledge that managers have in their relevant areas of responsibility.

**Performance Criteria:** are statements that together specify the standard of performance required when carrying out a task.

**Scope:** is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of performance required.

**Sector:** is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.

**Sub-Sector:** is derived from a further breakdown based on the characteristics and interests of its components.

**Technical Knowledge:** is the specific knowledge needed to accomplish specific designated responsibilities.

**Unit Title:** gives a clear overall statement about what the incumbent should be able to do.

## 1. OVERVIEW

This is an introductory section providing a brief summary and specific information or commentary about the content of the NOS and the targeted sector and occupation to help the user judge whether it is relevant to them.

<b>NOS Code</b>	NOS.SAO.01
<b>Occupation</b>	Agricultural Production Information Supervisor
<b>Job Title</b>	Senior Agriculture Officer
<b>Job Description</b>	The SAO works with the Research and Development team to market and transfer the technology, products, knowledge and information to the farmers, acting as a bridge between the Ministry of Agriculture and farmers increasing their productivity and profitability
<b>Job Purpose</b>	This job role is responsible for supervising delivery of agriculture extension and advisory services in the field in collaboration with Researchers and other stakeholders
<b>ZQF Level</b>	7
<b>Sector</b>	Agriculture
<b>Sub sector</b>	Agriculture Extension and Advisory Services
<b>Other Economic Sector(s) in which the Occupation is Practiced</b>	N/A
<b>Other Similar Jobs Performed in the Occupation</b>	Agriculture Extension Officer, Agribusiness and Marketing, Agricultural Technical Services, etc.
<b>Minimum Educational Job Entry Qualification(s)</b>	Bachelor's Degree in Agriculture or equivalent
<b>Practicing License Requirements (if any)</b>	N/A
<b>Training/RPL (Optional)</b>	Prior Training in Agriculture Related Programme
<b>Minimum Job Entry Age</b>	18
<b>Prior Experience</b>	4 years' experience in the agriculture extension field
<b>Performance Criteria</b>	As described in the Units under Section 4

## **2. SCOPE**

This National Occupational Standard specifies the fundamental knowledge and understanding, skills and competences that Senior Agriculture Officers must possess to be successful in their job roles. It is applicable to Senior Agriculture Officers working in agriculture, governmental or non-governmental organisations, etc.

## **3. PERSONAL ATTRIBUTES (VALUES, ETHICS AND ATTITUDES)**

The job requires the individual to be constantly armed with the latest techniques and information related to agriculture. He/she should have sound knowledge of the subject, possess leadership qualities to create motivation and self confidence among farmers, be trustworthy, honesty and with high integrity, time conscious, etc.

## **4. UNITS AND ELEMENTS**

This National Occupational Standard is divided into 7 Units representing the tasks that a job holder should undertake in his/her day to day work. Each Unit is further broken down into elements depicting the number of activities to be carried out for the successful execution of a particular task.

**UNIT 1** [This Unit is about understanding the felt needs of the farmers and providing inputs to the field agricultural extension officers to satisfy the farmers' needs].

<b>Unit No.</b>	<b>01</b>
<b>Unit Title</b>	<b>Supervise operations of the field extension staff and to Coordinate with research and development teams.</b>
<b>Description</b>	This Unit is about understanding the felt needs of the farmers and providing inputs to the field agricultural extension officers to satisfy the farmers' needs
<b>Scope</b>	This Unit covers the following: <ul style="list-style-type: none"> <li>• Supervise operations of agricultural field staff</li> <li>• Capacity building of the field staff</li> <li>• Analyse the farmer needs</li> <li>• Assist the research and development team understand farmer's situation.</li> <li>• Supervise a team of subject matter specialists at the district level</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria (PC)</b>
<b>Supervise operations of agricultural field staff</b>	To be competent, the individual must be able to: PC1. co-ordinate timely monitoring and evaluation in agriculture extension and advisory services in order to facilitate appropriate interventions. PC2. conduct management meetings for district subject matter specialists PC3. co-ordinate effectively human and material resources in order to attain departmental objectives
<b>Capacity building of the field staff</b>	To be competent, the individual must be able to: PC4. ensures timely development and implementation of extension training programs in order to impart knowledge and skills to farmers PC5. evaluate programme implementation by field staff
<b>Analyse the farmer needs</b>	To be competent, the individual must be able to: PC6. assess the needs and interests of the farmers for farm management PC7. visit the farmers and survey their level of understanding, farming knowledge, their way of life, tools and equipments that they currently use and their felt needs PC8. analyse the problems and difficulties that the farmer faces with their farming practices and how the adaptation of technology will bring out a change PC9. understand the current cost of production, farm profit, factors of production, etc. of the farmer and their expectation level for the future
<b>Assist the research and development team with farmer</b>	To be competent, the individual must be able to: PC10. co-ordinate regular research in agricultural extension and advisory services in order to generate information PC11. discuss on the methods to convey the research findings to the farmers properly and effectively from the research institute

<b>production constraints</b>	<p>PC12. ensure a match between the farmer needs and promoted technologies</p> <p>PC13. coordinate with the research and development team to provide innovation, higher productivity and competitiveness for the farmers</p>
<b>Supervise a team of subject matter specialists at the district level</b>	<p>To be competent, the individual must be able to:</p> <p>PC14. co-ordinates timely development of individual and departmental work plan in order to monitor and evaluate performance</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organisational Context (Knowledge of the company/ organisation and its processes)</b>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>OK1. relevant legislation, standards, policies and procedures relevant to work</p> <p>OK2. relevant health and safety requirements applicable in the work environment</p> <p>OK3. who to approach for support in order to obtain work related information, clarifications and support</p> <p>OK4. importance of following health, hygiene, safety and quality standards and the impact of not following the standards on consumers and the business</p> <p>OK5. documentation and related procedures applicable in the context of work</p>
<b>B. Technical Knowledge</b>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>TK1. company's policies on: delivery standards, and personnel management</p> <p>TK2. quality standards set by the organisation</p> <p>TK3. reporting structure of the organisation</p> <p>TK4. methods and ways to reach out to farmers to assess their needs and interests</p> <p>TK5. feasibility to carry out action plans working with the research and development team</p> <p>TK6. various scientific methods and technologies for increasing crop production, farmer productivity as well as earnings</p> <p>TK7. latest technological developments that have the potential to increase the crop yield and resource use efficiency</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	<p>The individual on the job must be able to:</p> <p>CS1. write different kinds of reports</p>
	<b>Reading Skills</b>
<p>The individual on the job must be able to:</p> <p>CS2. update oneself about latest technologies by reading research articles, attending seminars, conferences etc.</p> <p>CS3. keep abreast with the latest knowledge by reading brochures, pamphlets, product information sheets etc.</p>	

	<p><b>Oral Communication (Listening and Speaking skills)</b></p> <p>The individual on the job must be able to:</p> <p>CS4. communicate clearly and effectively with seniors          CS5. be polite and courteous under all circumstances          CS6. exhibit etiquette and good body language</p>
<p><b>B. Professional Skills</b></p>	<p><b>Decision Making Skills</b></p> <p>The individual must be able to:</p> <p>PS1. make decisions pertaining to understanding farmer needs and proposing action plans along with the research and development team to satisfy the needs of the farmer.          PS2. identify problems that may arise in carrying out tasks and take preventive action following workplace procedures.</p>
	<p><b>Plan and Organise</b></p> <p>The individual must be able to:</p> <p>PS3. plan and organise farm visits to analyse farmer needs          PS4. organise meetings with the research and development team</p>
	<p><b>Customer Centricity</b></p> <p>The individual must be able to:</p> <p>PS5. develop a rapport with senior officers and specialists          PS6. listen carefully and interpret the information given by the seniors          PS7. discuss possible solutions          PS8. make use of exposure visits to model farms          PS9. participate in exhibitions/seminars/workshop which provide information on new technologies in agriculture and allied sectors</p>
	<p><b>Problem Solving Skills</b></p> <p>The individual must be able to:</p> <p>PS10. think through problems, evaluate the possible solutions and take up optimum/best solution          PS11. identify economically viable and operationally feasible solutions which meet farmer needs</p>
	<p><b>Analytical Thinking</b></p> <p>The individual must be able to:</p> <p>PS12. analyse the information received from officers and specialists          PS13. think analytically to come up with solutions          PS14. apply, analyse and evaluate the information gathered from trainings</p>

**UNIT 2** [This Unit is about understanding the technology and carrying out various marketing strategies to transfer the technology to the farmers].

<b>Unit No.</b>	<b>02</b>
<b>Unit Title</b>	<b>Promote agricultural technology</b>
<b>Description</b>	This Unit is about understanding the technology and carrying out various marketing strategies to transfer the technology to the farmers
<b>Scope</b>	This Unit covers the following: <ul style="list-style-type: none"> <li>• Understand the new technology offerings</li> <li>• Market to transfer the technology</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria (PC)</b>
<b>Understand the new technology offerings</b>	To be competent, the individual must be able to: PC1. focus on the wide range of production and services that can be offered to the farmers PC2. be aware of the various challenges to be faced such as concerns over climate change, natural resource management, food security, etc. PC3. have clarity of the technology to be transferred PC4. be aware of the information and check on its feasibility before marketing to the farmers PC5. understand the cost involved in the marketing and ways to bring out the benefits PC6. develop skills and knowledge about the technologies, market appraisal and farm business development if the farmers adapt to the technology PC7. have access to information such as climate forecast, adaptive technology innovations or markets to inform and train the farmers PC8. prepare and rehearse before transferring the information to the farmers PC9. ensure the innovative materials and the technology are brought out to market, suiting the needs of the farmers and providing profitable returns to them
<b>Market to transfer the technology</b>	To be competent, the individual must be able to: PC10. provide information to the farmers on business support services PC11. assist technically and advice on production and market information PC12. develop the market linkage and business skills of the farmer with new research findings PC13. understand the rapid changes that are coming up in the light of market integration for marketing activities PC14. enhance the agricultural marketing infrastructure for better awareness to be created among the farmers PC15. assist in preparation and distribution of pamphlets, brochures and simple information on aspects of farm management and the technology, in a way and language the farmers can understand

	<p>PC16. inform about the profitability to the farmers on use of the technology appropriately</p> <p>PC17. raise awareness of the business opportunities to the farmers if they adapt to the technology</p> <p>PC18. provide information and knowledge to the farmers on future markets on adapting to the technology</p> <p>PC19. set up or coordinate with agriculture institutes where the farmers can come for training purposes to improve their farming practices by adapting to latest technologies proposed</p>
<b>Knowledge and Understanding (K)</b>	
<p><b>A. Organisational Context (Knowledge of the company/ organisation and its processes)</b></p>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>OK1. relevant legislation, standards, policies and procedures relevant to work</p> <p>OK2. relevant health and safety requirements applicable in the work environment</p> <p>OK3. own job role and responsibilities and sources for information pertaining to work</p> <p>OK4. who to approach for support in order to obtain work related information, clarifications and support</p> <p>OK5. importance of following health, hygiene, safety and quality standards and the impact of not following the standards on consumers and the business</p> <p>OK6. documentation and related procedures applicable in the context of work</p>
<p><b>B. Technical Knowledge</b></p>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>TK1. company's policies on: incentives, delivery standards, and personnel management</p> <p>TK2. work flow involved in company's process</p> <p>TK3. importance of the individual's role in the workflow</p> <p>TK4. quality standards set by the organisation</p> <p>TK5. reporting structure of the organisation</p> <p>TK6. production and services to be offered to the farmers</p> <p>TK7. challenges to be faced such as concerns over climate change, natural resource management, food security, etc.</p> <p>TK8. sound knowledge of agricultural policy and clarity on technology</p> <p>TK9. various marketing strategies to inform the farmers about latest technology and its feasibility on the farming practices</p> <p>TK10. methods and ways to reach out to the farmers creating awareness of the technology</p> <p>TK11. methods to experiment the proposed plan</p> <p>TK12. feasibility to carry out action plans</p> <p>TK13. various scientific methods and technologies for increasing crop production, farmer productivity as well as earnings</p> <p>TK14. latest technological developments that have the potential to increase the crop yield and resource use efficiency</p> <p>TK15. tools used in the extension services</p>

	TK16. machinery, equipment and other inputs to be used for testing
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The individual on the job must be able to: CS1. write mails, letters CS2. write different kinds of reports
	<b>Reading Skills</b>
	The individual on the job must be able to: CS3. update oneself about latest technologies by reading research articles, attending seminars, conferences etc. CS4. keep abreast with the latest knowledge by reading brochures, pamphlets, product information sheets etc. CS5. read relevant newspapers/booklets etc.
	<b>Oral Communication (Listening and Speaking skills)</b>
	The individual on the job must be able to: CS6. maintain effective relationships with senior officers and specialists CS7. communicate clearly and effectively with seniors CS8. understand information and grasp its meaning CS9. communicate precisely CS10. discuss issues, clarify doubts and seek solutions CS11. be polite and courteous under all circumstances CS12. exhibit etiquette and body language
<b>B. Professional Skills</b>	<b>Decision Making Skills</b>
	The individual on the job must be able to: PS1. make decisions pertaining to understanding and marketing the technology PS2. identify problems that may arise in carrying out tasks and take preventive action following workplace procedures
	<b>Plan and Organise</b>
	The individual on the job must be able to: PS3. plan and organise marketing strategy plans PS4. organise meetings of representative group of farmers PS5. organise exhibitions/seminars/workshop which provide information on new technologies in agriculture and allied sectors to the farmers PS6. use various strategies to reach out to the farmers like pamphlets, brochures, information providing, etc.
	<b>Customer Centricity</b>
	The individual on the job must be able to: PS7. develop a rapport with senior officers and specialists PS8. listen carefully and interpret the information given by the seniors PS9. discuss possible solutions
	<b>Problem Solving Skills</b>
	The individual on the job must be able to: PS10. think through problems, evaluate the possible solutions and take up optimum/best solution

	PS11. identify economically viable and operationally feasible solutions which meet farmer needs
	<b>Analytical Thinking</b>
	The individual on the job must be able to: PS12. analyse the information received from officers and specialists PS13. think analytically to come up with solutions PS14. apply, analyse and evaluate the information gathered from trainings PS15. improving/adapting the technologies based on results found from analytical thinking
	<b>Critical Thinking</b>
	The individual on the job must be able to: PS16. take up his/her own working and learning PS17. find innovative solution for promoting agricultural technology

**UNIT 3** [This Unit is about informing the farmers and assisting them on the various standards and practices of farming].

<b>Unit No.</b>	<b>03</b>
<b>Unit Title</b>	<b>Address farmers about standards and practices</b>
<b>Description</b>	This Unit is about informing the farmers and assisting them on the various standards and practices of farming
<b>Scope</b>	<p>This Unit covers the following:</p> <ul style="list-style-type: none"> <li>• Organise group gatherings with the farmers</li> <li>• Inspect their farms</li> <li>• Advice farmers on various aspects</li> <li>• Assist farmers with farming practices</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria (PC)</b>
<b>Organise group gatherings with the farmers</b>	<p>To be competent, the individual must be able to:</p> <p>PC1. identify areas with cooperatives, provincial or district agriculture officers, etc. to reach a group of farmers</p> <p>PC2. conduct training workshops with the farmers on regular basis in the farms</p> <p>PC3. attend to farmers individually and listen to their queries and doubts</p> <p>PC4. hold detailed discussions to attend to their needs</p> <p>PC5. assist the farmers in improving their agricultural production in an effective way and convince them to participate in their demonstration exercises</p> <p>PC6. discuss the strategies for improvements among the team</p> <p>PC7. experiment and demonstrate to convey and implement the strategy</p> <p>PC8. work with the farmers to inform on the strategies like producing effectively, harvesting at the right time in the right way, post-harvest activities, etc.</p> <p>PC9. find the suitability of technology by involving the farmer groups in investigations</p>
<b>Inspect their farms</b>	<p>To be competent, the individual must be able to:</p> <p>PC10. ensure correct information are updated to the farmers based on the farm situation</p> <p>PC11. estimate a proper yield prior to harvest</p> <p>PC12. indicate areas of improvements based on the inspection</p> <p>PC13. propose corrective actions that can be taken for implementation</p> <p>PC14. conduct on-farm experiments on the farms</p> <p>PC15. evaluate if the technology is suitable to be implemented on that farm, or if it needs to be modified or refined</p> <p>PC16. design an action plan which is feasible and would match the needs of farmers, based on the farm visit</p> <p>PC17. suggest the particular technology that the farm requires based on experiment results</p>

<p><b>Advise farmers on various aspects</b></p>	<p>To be competent, the individual must be able to:</p> <p>PC18. monitor prices for the farmer transactions  PC19. guide the farmer on storage, delivery and quality grade  PC20. advice on the timely and equitable distribution of the water for irrigation, good weeding practices, harvesting practices, cropping pattern and financial planning  PC21. advice the farmer on which variety of crop grows best in his place, suitable climate and growing season  PC22. train him for safe application of pesticides  PC23. guide him on crop rotation to prevent soil depletion  PC24. advice and guide on crop loans and crop insurance  PC25. help to arrange various inputs like seeds, fertilizers, pesticides, etc.  PC26. assist with cash management and entrepreneurship development  PC27. use analytical tools to study the findings of the experiments on the farm  PC28. analyse the reaction and opinion of the farmer on the experiments and give necessary clarifications and suggestions</p>
<p><b>Assist farmers with farming practices</b></p>	<p>To be competent, the individual must be able to:</p> <p>PC29. visit farms often, particularly when some problem arises  PC30. rank the problems by priorities, identify causes of problems and list possible solutions  PC31. monitor the charges made to check if they are in line with the regulations  PC32. inform farmers about the necessary precautionary measures to be taken such as health and safety, pests and diseases, etc.  PC33. ensure appropriate facilities being provided to the farmers for their farming practices  PC34. assist on the quality and quantity aspect maintenance of materials  PC35. assist farmers to perform purchasing and selling of the products and supplies, collecting soil samples and test results, etc.</p>
<p><b>Knowledge and Understanding (K)</b></p>	
<p><b>A. Organisational Context (Knowledge of the company/ organisation and its processes)</b></p>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>OK1. relevant legislation, standards, policies and procedures relevant to work  OK2. relevant health and safety requirements applicable in the work environment  OK3. own job role and responsibilities and sources for information pertaining to work  OK4. who to approach for support in order to obtain work related information, clarifications and support  OK5. importance of following health, hygiene, safety and quality standards and the impact of not following the standards on consumers and the business  OK6. documentation and related procedures applicable in the context of work</p>

<p><b>B. Technical Knowledge</b></p>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <ul style="list-style-type: none"> <li>TK1. company's policies on: incentives, delivery standards, and personnel management</li> <li>TK2. work flow involved in company's process</li> <li>TK3. importance of the individual's role in the workflow</li> <li>TK4. quality standards set by the organisation</li> <li>TK5. reporting structure of the organisation</li> <li>TK6. methods and ways to reach out to farmers</li> <li>TK7. strategies for improvements</li> <li>TK8. harvesting methods</li> <li>TK9. suitable location, climate and seasonal parameters for farming</li> <li>TK10. management of pest and disease, health and safety, etc.</li> <li>TK11. methods of action steps which can be taken to resolve problems of the farmers</li> <li>TK12. methods to experiment the proposed plan</li> <li>TK13. feasibility to carry out action plans</li> <li>TK14. various scientific methods and technologies for increasing crop production, farmer productivity as well as earnings</li> <li>TK15. areas such as crop rotation, irrigation and drainage, plant breeding, plant physiology, soil classification, soil fertility, weed control, insect and pest control etc.</li> <li>TK16. various operations that have the potential to increase the yield and decrease the incidence of pests and diseases</li> <li>TK17. latest technological developments that have the potential to increase the crop yield and resource use efficiency</li> <li>TK18. factors affecting farmer's decisions to choose right decisions</li> <li>TK19. tools used in the extension services</li> <li>TK20. machinery, equipment and other inputs to be used for testing</li> </ul>												
<p><b>Skills (S)</b></p>													
<p><b>A. Core Skills/ Generic Skills</b></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" data-bbox="475 1375 1465 1415" style="background-color: #ffe0b2;"> <p><b>Writing Skills</b></p> </td> </tr> <tr> <td data-bbox="475 1415 1066 1523" style="width: 30%;"> <p>The individual on the job must be able to:</p> <ul style="list-style-type: none"> <li>CS1. maintain records</li> <li>CS2. fill data collection forms/reports</li> </ul> </td> <td data-bbox="1066 1415 1465 1523"></td> </tr> <tr> <td colspan="2" data-bbox="475 1523 1465 1563" style="background-color: #ffe0b2;"> <p><b>Reading Skills</b></p> </td> </tr> <tr> <td data-bbox="475 1563 1066 1783" style="width: 30%;"> <p>The individual on the job must be able to:</p> <ul style="list-style-type: none"> <li>CS3. update oneself about latest technologies by reading research articles, attending seminars, conferences etc.</li> <li>CS4. keep abreast with the latest knowledge by reading brochures, pamphlets, product information sheets etc.</li> <li>CS5. read relevant newspapers/booklets etc.</li> </ul> </td> <td data-bbox="1066 1563 1465 1783"></td> </tr> <tr> <td colspan="2" data-bbox="475 1783 1465 1823" style="background-color: #ffe0b2;"> <p><b>Oral Communication (Listening and Speaking skills)</b></p> </td> </tr> <tr> <td data-bbox="475 1823 1066 2038" style="width: 30%;"> <p>The individual on the job must be able to:</p> <ul style="list-style-type: none"> <li>CS6. maintain effective relationships with senior officers and specialists</li> <li>CS7. communicate clearly and effectively with seniors</li> <li>CS8. understand information and grasp its meaning</li> <li>CS9. communicate precisely</li> </ul> </td> <td data-bbox="1066 1823 1465 2038"></td> </tr> </table>	<p><b>Writing Skills</b></p>		<p>The individual on the job must be able to:</p> <ul style="list-style-type: none"> <li>CS1. maintain records</li> <li>CS2. fill data collection forms/reports</li> </ul>		<p><b>Reading Skills</b></p>		<p>The individual on the job must be able to:</p> <ul style="list-style-type: none"> <li>CS3. update oneself about latest technologies by reading research articles, attending seminars, conferences etc.</li> <li>CS4. keep abreast with the latest knowledge by reading brochures, pamphlets, product information sheets etc.</li> <li>CS5. read relevant newspapers/booklets etc.</li> </ul>		<p><b>Oral Communication (Listening and Speaking skills)</b></p>		<p>The individual on the job must be able to:</p> <ul style="list-style-type: none"> <li>CS6. maintain effective relationships with senior officers and specialists</li> <li>CS7. communicate clearly and effectively with seniors</li> <li>CS8. understand information and grasp its meaning</li> <li>CS9. communicate precisely</li> </ul>	
<p><b>Writing Skills</b></p>													
<p>The individual on the job must be able to:</p> <ul style="list-style-type: none"> <li>CS1. maintain records</li> <li>CS2. fill data collection forms/reports</li> </ul>													
<p><b>Reading Skills</b></p>													
<p>The individual on the job must be able to:</p> <ul style="list-style-type: none"> <li>CS3. update oneself about latest technologies by reading research articles, attending seminars, conferences etc.</li> <li>CS4. keep abreast with the latest knowledge by reading brochures, pamphlets, product information sheets etc.</li> <li>CS5. read relevant newspapers/booklets etc.</li> </ul>													
<p><b>Oral Communication (Listening and Speaking skills)</b></p>													
<p>The individual on the job must be able to:</p> <ul style="list-style-type: none"> <li>CS6. maintain effective relationships with senior officers and specialists</li> <li>CS7. communicate clearly and effectively with seniors</li> <li>CS8. understand information and grasp its meaning</li> <li>CS9. communicate precisely</li> </ul>													

	<p>CS10. discuss issues, clarify doubts and seek solutions          CS11. being polite and courteous under all circumstances          CS12. significance of etiquette and body language          CS13. make use of exposure visits to model farms          CS14. participate in exhibitions/seminars/workshop which provide information on new technologies in agriculture and allied sectors</p>
<p><b>B. Professional Skills</b></p>	<p><b>Decision Making Skills</b></p>
	<p>The individual on the job must be able to:          PS1. make decisions pertaining to selection of farmer groups and assistance to be provided          PS2. identify problems that may arise in carrying out tasks and take preventive action following workplace procedures</p>
	<p><b>Plan and Organise</b></p>
	<p>The individual on the job must be able to:          PS3. plan and organise extension services to be demonstrated          PS4. organise meetings of representative group of farmers</p>
	<p><b>Customer Centricity</b></p>
	<p>The individual on the job must be able to:          PS5. develop a rapport with senior officers and specialists          PS6. listen carefully and interpret the information given by the seniors          PS7. discuss possible solutions</p>
	<p><b>Problem Solving Skills</b></p>
	<p>The individual on the job must be able to:          PS8. think through problems, evaluate the possible solutions and take up optimum/best solution          PS9. identify economically viable and operationally feasible solutions which meet farmer needs</p>
	<p><b>Analytical Thinking</b></p>
	<p>The individual on the job must be able to:          PS10. analyse the information received from officers and specialists          PS11. think analytically to come up with solutions          PS12. apply, analyse and evaluate the information gathered from trainings          PS13. improving/adapting the technologies based on results found from analytical thinking</p>
<p><b>Critical Thinking</b></p>	
<p>The individual on the job must be able to:          PS14. take up his/her own working and learning</p>	

**UNIT 4** [This Unit is about the Senior Agriculture Officer supervising the making of frontline demonstrations to establish the potential of improved agricultural technology in the farmer's field].

<b>Unit No.</b>	<b>04</b>
<b>Unit Title</b>	<b>Make frontline demonstrations</b>
<b>Description</b>	This Unit is about the Senior Agriculture Officer supervising the making of frontline demonstrations to establish the potential of improved agricultural technology in the farmer's field.
<b>Scope</b>	This Unit covers the following: <ul style="list-style-type: none"> <li>• Supervising the preparations for frontline field demonstrations</li> <li>• Supervising the conducting of frontline field demonstrations</li> <li>• Following up</li> <li>• Record keeping</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria (PC)</b>
<b>Supervising the preparations for frontline field demonstrations</b>	To be competent, the individual must be able to: PC1. know the vicinity where demonstrations have to be carried out PC2. select appropriate and proven technologies to be demonstrated PC3. select the block of demonstration site PC4. select a group of farmers who are willing to cooperate for demonstration PC5. finalise package of practices consisting of frontier technologies in consultation with the Agriculture University or College/Ministry of Agriculture/Research Institutes etc. (as applicable) PC6. prepare for demonstrations by arranging critical inputs to be used for the demonstrations
<b>Supervising the conducting of frontline field demonstrations</b>	To be competent, the individual must be able to: PC7. guide and assist farmers in laying out the field where demonstrations have to be made PC8. hold special training programmes for the farmers in whose plots demonstrations are to be laid PC9. be present at the time of crucial farm operations like seeding, fertiliser application, weeding, irrigation, plant protection measures, harvesting, threshing, and weighing of produce and use each of these operations as an input for training of farmers PC10. encourage questions from farmers at each stage of the operations PC11. arrange a field day to project the new technologies demonstrated in front of a large manageable group of interested farmers PC12. arrange a few method demonstrations on operation of farm machines and equipment, operation of seed drill, seed treatment, fertiliser application, plant protection etc.

	<p>PC13. arrange harvesting in the presence of identified group of farmers and ask them to estimate the yield to see the results of demonstrated technologies</p> <p>PC14. assess satisfaction level of the farmers</p>
<b>Following up</b>	<p>To be competent, the individual must be able to:</p> <p>PC15. provide information reinforcement, timely supply of inputs and/or on-the-spot guidance to ensure that farmers don't revert to old practices</p> <p>PC16. link the follow-up programme with the local institutions like farmer club, farmers' cooperative society, etc.</p>
<b>Record keeping</b>	<p>To be competent, the individual must be able to:</p> <p>PC17. maintain records for each block demonstration</p> <p>PC18. maintain an information card with basic information of the demonstration site and detailed information of the demonstration</p> <p>PC19. maintain technical report containing information on cost-benefit ratio of the demonstration to help work out the economic returns</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organisational Context (Knowledge of the company/ organisation and its processes)</b>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>OK1. relevant legislation, standards, policies and procedures relevant to work</p> <p>OK2. relevant health and safety requirements applicable in the work environment</p> <p>OK3. own job role and responsibilities and sources for information pertaining to work</p> <p>OK4. who to approach for support in order to obtain work related information, clarifications and support</p> <p>OK5. importance of following health, hygiene, safety and quality standards and the impact of not following the standards on consumers and the business</p> <p>OK6. documentation and related procedures applicable in the context of work</p>
<b>B. Technical Knowledge</b>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>TK1. various climatic parameters such as maximum and minimum temperatures, intensity and distribution of precipitation (rainfall), relative humidity etc.</p> <p>TK2. pest and diseases specific to a given agro climatic region, the life cycles of these pests and diseases and the sources of infection</p> <p>TK3. various procedures of soil sampling</p> <p>TK4. soil testing laboratories and various nutrients (macro and micro) that are analysed</p> <p>TK5. soil analysis report</p> <p>TK6. recommendations based on the availability of various micro and macro nutrients in a given soil or crop sample</p> <p>TK7. soil types, their advantages and disadvantages with reference to the nutrient status</p>

	<p>TK8. the soil type, various methods of land preparation to maintain soil tilth</p> <p>TK9. various farm machinery available and their utility to maintain soil tilth and health</p> <p>TK10. appropriate methods of application of various fertilisers and micro nutrients</p> <p>TK11. timing and location of the application</p> <p>TK12. time of application of fertiliser/nutrient in the crop life cycle</p> <p>TK13. interaction effects of the soil type, level of the land and water availability on the crop growth and its yield</p> <p>TK14. timing and method of irrigation and drainage appropriate for a given soil type and climatic condition</p> <p>TK15. various methods of irrigation and resource use efficiency</p> <p>TK16. methods of precision farming and their application in crop cultivation</p> <p>TK17. timing and method of irrigation appropriate for a given soil type</p> <p>TK18. various methods of harvesting</p> <p>TK19. precautions to be taken while handling the produce during harvest</p> <p>TK20. advantages of grading (at the time of harvesting ) in the price determination</p> <p>TK21. influence of crop stage of harvesting and method of harvesting, on the keeping quality of the fruits and the effect on storage losses</p> <p>TK22. using various methods of storage and their influence on the fruit or grain or produce quality and on the health of the consumer</p> <p>TK23. taking up various methods of storage and their cost dynamics</p> <p>TK24. advantages and challenges of various latest developments (both institutional and technical) on the keeping quality and revenue</p> <p>TK25. various operations that have the potential to increase the yield and decrease the incidence of pests and diseases</p> <p>TK26. latest technological developments that have the potential to increase the crop yield and resource use efficiency</p> <p>TK27. uses and harmful effects of various pesticides</p> <p>TK28. safe methods of handling the pesticides</p> <p>TK29. first aid to the exposure of humans to harmful effects of pesticides</p> <p>TK30. using tools for making demonstrations</p> <p>TK31. appropriate handling of tools</p> <p>TK32. safety measures to be adopted for using tools</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<p><b>Writing Skills</b></p> <p>The individual on the job must be able to:</p> <p>CS1. maintain records</p> <p>CS2. document the findings in a clear and concise manner, which is easy to understand</p> <p>CS3. report and document the results collected from frontline field demonstrations</p>

	<b>Reading Skills</b>
	The individual on the job must be able to: CS4. update oneself about latest technologies by reading research articles, attending seminars, conferences etc. CS5. keep abreast with the latest knowledge by reading brochures, pamphlets, product information sheets etc. CS6. read relevant newspapers/booklets etc.
	<b>Oral Communication (Listening and Speaking skills)</b>
	The individual on the job must be able to: CS7. maintain effective relationships with farmers CS8. communicate clearly and effectively with various stakeholders CS9. understand information and grasp its meaning CS10. seek advice from senior people and experts CS11. put the farmers at ease and suggest solutions CS12. communicate in local language CS13. educate and inform farmers about different issues
<b>B. Professional Skills</b>	<b>Decision Making Skills</b>
	The individual on the job must be able to: PS1. make decisions pertaining to the concerned area of work PS2. identify problems that may arise in carrying out tasks and take preventive action following workplace procedures
	<b>Plan and Organise</b>
	The individual on the job needs to supervise: PS3. the planning and organising of frontline field demonstrations PS4. the organising of the meetings for stakeholders, if necessary PS5. the organising of the meetings for representative groups of farmers for frontline field demonstrations
	<b>Customer Centricity</b>
	The individual on the job must be able to: PS6. develop a rapport with farmers and other stakeholders PS7. listen carefully and interpret their requirements PS8. suggest possible solutions PS9. make use of exposure visits to model farms PS10. participate in exhibitions/seminars/workshop which provide information on new technologies in agriculture and allied sectors PS11. manage relationships with farmers PS12. document the findings in a clear and concise manner, which is easy to understand
	<b>Problem Solving Skills</b>
	The individual on the job must be able to: PS13. think through problems, evaluate the possible solutions and take up optimum/best solution PS14. identify economically viable and operationally feasible solutions which meet farmer needs
	<b>Analytical Thinking</b>
	The individual on the job must be able to: PS15. analyse the data and information collected from frontline field demonstrations to come up with results and solutions thereof

	PS16. apply, analyse and evaluate the information gathered from observation, frontline field demonstrations, experience, reasoning, discussions with farmers and stakeholders
	<b>Critical Thinking</b>
	The individual on the job must be able to: PS17. take up his/her own working and learning

**UNIT 5** [This Unit is about facilitating the training of farmers to update their knowledge and skills].

<b>Unit No.</b>	<b>05</b>
<b>Unit Title</b>	<b>Facilitate the training of the farmers and perform follow ups</b>
<b>Description</b>	This Unit is about facilitating the provision of training to farmers to update their knowledge and skills
<b>Scope</b>	This Unit covers the following: <ul style="list-style-type: none"> <li>• Select the appropriate training program/course</li> <li>• Facilitate conducting of the training program</li> <li>• Follow up on the practices of the farmers post training</li> <li>• Document the training delivered</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria (PC)</b>
<b>Select the appropriate training program/course</b>	To be competent, the individual must be able to: PC1. plan on the topics for which training is to be provided PC2. select the group of farmers to be trained and the place for the training to happen PC3. arrange the inputs necessary for training
<b>Facilitate conducting of the training program</b>	To be competent, the individual must be able to: PC4. gather the farmers during specific time and date for the training PC5. train through practical demonstrations of the practices and technologies in agriculture PC6. train on usage of improved seeds, methods of use of chemical fertilisers, management of land, etc. PC7. use various strategies and programs of change by applying the latest scientific and technological innovation PC8. ensure to deliver in a clear and concise manner PC9. attend to the farmer's doubts making the training session more interactive PC10. approach the training methods on both practical as well as theoretical aspect
<b>Follow-up on the practices of the farmers post training</b>	To be competent, the individual must be able to: PC11. note down the feedbacks of the farmers once the training session is over PC12. follow up to ensure the farmer has gained benefits from the training programs provided PC13. ensure change of behaviour by farmers and create new knowledge in them PC14. provide insights and motivate the farmers to improve their livelihood
<b>Document the training delivered</b>	To be competent, the individual must be able to: PC15. maintain records of the training programs delivered and the actions taken for the various doubts from the farmers PC16. document the benefits that the farmer received from the training program PC17. document the challenges faced during the training program

<b>Knowledge and Understanding (K)</b>	
<b>A. Organisational Context (Knowledge of the company/ organisation and its processes)</b>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <ul style="list-style-type: none"> <li>OK1. relevant legislation, standards, policies and procedures relevant to work</li> <li>OK2. relevant health and safety requirements applicable in the work environment</li> <li>OK3. own job role and responsibilities and sources for information pertaining to work</li> <li>OK4. who to approach for support in order to obtain work related information, clarifications and support</li> <li>OK5. importance of following health, hygiene, safety and quality standards and the impact of not following the standards on consumers and the business</li> <li>OK6. documentation and related procedures applicable in the context of work</li> </ul>
<b>B. Technical Knowledge</b>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <ul style="list-style-type: none"> <li>TK1. company's policies on: incentives, delivery standards, and personnel management</li> <li>TK2. work flow involved in company's process</li> <li>TK3. importance of the individual's role in the workflow</li> <li>TK4. quality standards set by the organisation</li> <li>TK5. reporting structure of the organisation</li> <li>TK6. topics to be discussed for training programs and the inputs necessary for training</li> <li>TK7. climatic and seasonal parameters</li> <li>TK8. management of pests and diseases, etc.</li> <li>TK9. procedures for soil sampling</li> <li>TK10. land preparation, irrigation and weeding methods</li> <li>TK11. various farm machineries available</li> <li>TK12. fertiliser application</li> <li>TK13. methods of precision farming and their application in crop cultivation</li> <li>TK14. harvesting methods and necessary precautions to be taken</li> <li>TK15. quality and quantity maintenance during post-harvest management</li> <li>TK16. storage and grading methods of the produce</li> <li>TK17. various operations that have the potential to increase the yield and decrease the incidence of pests and diseases</li> <li>TK18. latest technological developments that have the potential to increase the crop yield and resource use efficiency</li> <li>TK19. safe methods of handling the pesticides</li> <li>TK20. first aid to the exposure of humans to harmful effects of pesticides</li> <li>TK21. tools to be used for providing effective training</li> <li>TK22. machinery, equipment and other inputs to be used for providing training</li> <li>TK23. effective methods of delivery of training</li> <li>TK24. availability and use of infrastructure to be used for training</li> </ul>

<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The individual on the job must be able to: CS1. document the findings in a clear and concise manner, which is easy to understand CS2. document the feedback received during the trainings
	<b>Reading Skills</b>
	The individual on the job must be able to: CS3. update oneself about latest technologies by reading research articles, attending seminars, conferences etc. CS4. keep abreast with the latest knowledge by reading brochures, pamphlets, product information sheets etc. CS5. read relevant newspapers/booklets etc.
<b>B. Professional Skills</b>	<b>Oral Communication (Listening and Speaking skills)</b>
	The individual on the job must be able to: CS6. maintaining effective relationships with farmers CS7. communicate clearly and effectively with various stakeholders CS8. understand information and grasp its meaning CS9. seek advice from senior people and experts CS10. put the farmers at ease and suggest solutions CS11. communicate in local language CS12. educate and inform farmers about different issues CS13. being polite and courteous under all circumstances CS14. significance of etiquette and body language
	<b>Decision Making Skills</b>
	The individual on the job must be able to: PS1. make decisions pertaining to training methods to be followed PS2. identify problems that may arise in carrying out tasks and take preventive action following workplace procedures
<b>B. Professional Skills</b>	<b>Plan and Organise</b>
	The individual on the job must be able to: PS3. plan and organise training programmes PS4. organise meetings of stakeholders if necessary PS5. organise meetings of farmers for trainings PS6. organise farmers' groups and lead them towards solutions to their problems
	<b>Customer Centricity</b>
	The individual on the job must be able to: PS7. develop a rapport with farmers and other stakeholders PS8. listen carefully and interpret their requirements PS9. suggest possible solutions PS10. make use of exposure visits to model farms PS11. participate in exhibitions/seminars/workshop which provide information on new technologies in agriculture and allied sectors PS12. build relationships and use human centric approach PS13. manage relationships with farmers

	<b>Problem Solving Skills</b>
	The individual on the job must be able to: PS14. think through problems, evaluate the possible solutions and take up optimum/best solution PS15. identify economically viable and operationally feasible solutions which meet farmer needs
	<b>Analytical Thinking</b>
	The individual on the job must be able to: PS16. analyse the data and information collected from frontline field demonstrations to come up with results and solutions thereof PS17. think analytically to solve problems of farmers PS18. apply, analyse and evaluate the information gathered from observation, frontline field demonstrations, experience, reasoning, discussions with farmers and stakeholders
	<b>Critical Thinking</b>
	The individual on the job must be able to: PS19. take up his/her own working and learning

**UNIT 6** [This Unit is about coordinating and maintaining relationship with the farmers and motivate them to better their production by adopting the modern practices they are trained on].

<b>Unit No.</b>	<b>06</b>
<b>Unit Title</b>	<b>Coordinate with farmers</b>
<b>Description</b>	This Unit is about coordinating and maintaining relationship with the farmers and motivate them to better their production by adopting the modern practices they are trained on
<b>Scope</b>	This Unit covers the following: <ul style="list-style-type: none"> <li>• Maintain continuous and cordial relationship with farmers</li> <li>• Motivate the farmers to adopt the modern agricultural practices</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria (PC)</b>
<b>Maintain continuous and cordial relationship with farmers</b>	To be competent, the individual must be able to: PC1. coordinate with farmers to satisfy all their needs and to bring in additional modern knowledge on agricultural practices PC2. discuss the various terms and conditions to be followed PC3. respond to any queries or doubts from the farmer PC4. maintain constructive relationships with the farmers PC5. get members of farmers as groups together to accomplish tasks PC6. provide a sustainable rural development plan and maintain a longstanding effective relationship with the farmers
<b>Motivate the farmers to adopt the modern agricultural practices</b>	To be competent, the individual must be able to: PC7. provide incentive on time in a way the farmers will be motivated to perform efficient farming practices PC8. bring in practices and policies that would encourage the farmers to give in more effort for farming and other mechanisms as essential PC9. ensure to bring in good transformations to the productivity, purchasing and selling the products and supplies, soil testing and collecting test results, etc. PC10. ensure farmer's needs are satisfied and results in profitable returns through the programs offered
<b>Knowledge and Understanding (K)</b>	
<b>A. Organisational Context (Knowledge of the company/ organisation and its processes)</b>	The individual on the job must demonstrate knowledge and understanding of: OK1. relevant legislation, standards, policies and procedures relevant to work OK2. relevant health and safety requirements applicable in the work environment OK3. own job role and responsibilities and sources for information pertaining to work OK4. who to approach for support in order to obtain work related information, clarifications and support

	<p>OK5. importance of following health, hygiene, safety and quality standards and the impact of not following the standards on consumers and the business</p> <p>OK6. documentation and related procedures applicable in the context of work</p>
<b>B. Technical Knowledge</b>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>TK1. company's policies on: incentives, delivery standards, and personnel management</p> <p>TK2. importance of the individual's role in the workflow</p> <p>TK3. reporting structure of the organisation</p> <p>TK4. how to maintain good relationship with farmers</p> <p>TK5. how to coordinate with the farmers to accomplish tasks</p> <p>TK6. methods to motivate the farmers</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	<p>The individual on the job must be able to:</p> <p>CS1. update oneself about existing and upcoming suppliers of inputs</p> <p>CS2. update oneself about prospective buyers in the market</p> <p>CS3. keep abreast of latest modes of communication with the buyers and sellers</p>
	<b>Reading Skills</b>
	<p>The individual on the job must be able to:</p> <p>CS4. update oneself about existing and upcoming suppliers of inputs</p> <p>CS5. update oneself about prospective buyers in the market</p> <p>CS6. keep abreast of latest modes of communication with the buyers and sellers</p>
	<b>Oral Communication (Listening and Speaking skills)</b>
	<p>The individual on the job must be able to:</p> <p>CS7. maintain effective relationships with farmers, buyers and sellers</p> <p>CS8. communicate clearly and effectively with various stakeholders</p> <p>CS9. understand information and grasp its meaning</p> <p>CS10. seek advice from senior people and experts</p> <p>CS11. put the farmers at ease and suggest solutions</p> <p>CS12. communicate in local language</p>
<b>B. Professional Skills</b>	<b>Decision Making Skills</b>
	<p>The individual on the job must be able to:</p> <p>PS1. make decisions pertaining to the concerned area of work</p> <p>PS2. follow basic arithmetic and algebraic principles</p>
	<b>Plan and Organise</b>
	<p>The individual on the job must be able to:</p> <p>PS3. plan and organise regular meetings with farmers to strengthen relationship</p> <p>PS4. organise meetings of stakeholders if necessary</p>

	<b>Customer Centricity</b>
	The individual on the job must be able to: PS5. develop a rapport with farmers, buyers and sellers PS6. listen carefully and interpret their requirements PS7. suggest possible solutions PS8. build relationships and use human centric approach PS9. manage relationships with farmers
	<b>Problem Solving Skills</b>
	The individual on the job must be able to: PS10. identify problems immediately and take up solutions quickly to resolve delays
	<b>Analytical Thinking</b>
The individual on the job must be able to: PS11. monitor and maintain the material and equipment required for various farm operations	
<b>Critical Thinking</b>	
The individual on the job must be able to: PS12. take up his/her own working and learning	

**UNIT 7** [This Unit is about the individual's effort in maintaining the safety of work environment].

<b>Unit No.</b>	<b>07</b>
<b>Unit Title</b>	<b>Maintain safe work environment</b>
<b>Description</b>	This Unit is about the individual's effort in maintaining the safety of work environment
<b>Scope</b>	This Unit covers the following: <ul style="list-style-type: none"> <li>• Maintain standard safety procedures at the workplace</li> <li>• Participate in safety awareness campaigns</li> <li>• Understand potential sources of accidents</li> <li>• Use safety gears to avoid accidents</li> </ul>
<b>Performance Criteria (PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria (PC)</b>
<b>Maintain standard safety procedures at the workplace</b>	To be competent, the individual must be able to: PC1. comply with general safety procedures of the company PC2. follow standard safety procedures while handling equipment, hazardous material or tool PC3. check parts of the workplace and take preventive actions like spraying and other steps to protect from leakages, water logging, pests, fire, pollution, etc. PC4. ensure no accidents and damages at the workplace, reporting of any breach of company safety procedure PC5. keep the workplace organised, swept, clean and hazard free
<b>Participate in safety awareness campaigns</b>	To be competent, the individual must be able to: PC6. attend fire drills and other safety related workshops organised at the workplace PC7. be aware of first aid, evacuation and emergency procedures PC8. be alert of any events and do not be negligent of any safety procedures to be followed
<b>Understand potential sources of accidents</b>	To be competent, the individual must be able to: PC9. avoid accidents while using hazardous chemicals, machines, sharp tools and equipments
<b>Use safety gears to avoid accidents</b>	To be competent, the individual must be able to: PC10. use safety materials such as protective gear, goggles, caps, shoes, etc. (as applicable with workplace) PC11. handle heavy and hazardous materials with care and using appropriate tools and handling equipment such as trolleys, ladders
<b>Knowledge and Understanding (K)</b>	
<b>A. Organisational Context (Knowledge of the company/ organisation and its processes)</b>	The individual on the job must demonstrate knowledge and understanding of: OK1. relevant legislation, standards, policies and procedures relevant to work OK2. relevant health and safety requirements applicable in the work environment OK3. own job role and responsibilities and sources for information pertaining to work

	<p>OK4. who to approach for support in order to obtain work related information, clarifications and support</p> <p>OK5. importance of following health, hygiene, safety and quality standards and the impact of not following the standards on consumers and the business</p> <p>OK6. documentation and related procedures applicable in the context of work</p>
<b>B. Technical Knowledge</b>	<p>The individual on the job must demonstrate knowledge and understanding of:</p> <p>TK1. company's policies on: incentives, delivery standards, and personnel management</p> <p>TK2. company occupational safety and health policy followed</p> <p>TK3. company emergency evacuation procedure</p> <p>TK4. company's medical policy</p> <p>TK5. how to use machines as per standard operating procedure</p> <p>TK6. how to maintain work area safe and secure</p> <p>TK7. the use of hazardous materials, tools and equipments</p> <p>TK8. emergency, evacuation and first aid procedures to be followed</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	The individual on the job must be able to: CS1. fill in documents related to one's role in maintaining safety
	<b>Reading Skills</b>
	The individual on the job must be able to: CS2. read instruction manual on use of various machines, tools and equipments to avoid accidents
<b>B. Professional Skills</b>	<b>Oral Communication (Listening and Speaking skills)</b>
	The individual on the job must be able to: CS3. effectively communicate the danger
	<b>Decision Making Skills</b>
	The individual on the job must be able to: PS1. make decisions pertaining to following prescribed procedures for maintaining safety at the workplace PS2. report potential sources of danger and wear appropriate safety gear to avoid accidents
<b>B. Professional Skills</b>	<b>Plan and Organise</b>
	The individual on the job must be able to: PS3. use safety equipment such as fire extinguisher during fire accidents PS4. use safety materials such as protective gear, goggles, caps, shoes, etc. PS5. keep the tools in organised manner to avoid accidents PS6. keep the work environment safe and clean
	<b>Customer Centricity</b>
	The individual on the job must be able to: PS7. manage relationships with labourers and other co-farmers PS8. build relationships and use human centric approach

	<b>Problem Solving Skills</b>
	The individual on the job must be able to: PS9. identify problems immediately and take up solutions quickly to resolve delays
	<b>Analytical Thinking</b>
	The individual on the job must be able to: PS10. learn from past mistakes and rectify on use of hazardous materials and spotting danger
	<b>Critical Thinking</b>
	The individual on the job must be able to: PS11. take up his/her own working and learning

## 5. EQUIPMENT, TOOLS AND CONSUMABLE MATERIALS

These include, but not limited to the following: motor vehicle/motorcycle/bicycle, computer with internet connection, note pads and pens, projector, markers, cardboards, flipchart/board, protective equipment, cultivating/digging tools/equipment, water source, watering equipment, seeds/stems/runners, fertilisers and applicators, growth/protective chemicals, planting/spraying/harvesting equipment, storage facilities, company's standard operating procedures, reporting templates, etc.

## 6. DILEMMAS/CHALLENGES AND COMPLEXITIES FOR A JOB HOLDER

Dilemmas associated with the job of Senior Agriculture Officer include handling dangerous chemicals, long working hours, pressure from farmers, supervisors and other stakeholders, language barriers, working in extreme weather such as rainy conditions, having to overstate points, resistance by farmers to adopt new farming technics, unrealistic demands or expectations from farmers and other stakeholders, insufficient funding, etc.

### 6.1 Alternative Choices (Solutions) to Dilemmas and Complexities

Solutions to dilemmas include exercising regularly to maintain physical fitness, learning local languages, undertaking training in customer service and team management, undertaking training in teaching/material delivery, wearing protective clothing such as rain coat, safety boots, gloves, goggles, etc.

## 7. WORKING CONDITIONS/ENVIRONMENT

Working conditions include forested or remote/rural areas, slippery areas and heights, cold, hot and rainy conditions, stand/walk for long hours for field visits, working in flexible hours, handling harmful chemicals, dealing with large groups of people with differing information assimilation abilities, etc.

## **8. PARTIES INVOLVED/INTERACTING WITH THE JOB HOLDER OR TRAINEE**

### **8.1 Internal/Within the Organisation**

Trainers, supervisors, colleagues, etc.

### **8.2 External/Outside the Organisation**

Farmers, trainers, government regulators, suppliers of equipment/tools/consumables, Senior Agriculture Officers from other districts/provinces, donor agencies/non-governmental organisations, etc.

## **9. PHYSICAL DEMANDS ON THE BODY**

- Be able to walk and stand for long periods of time;
- Be able to climb to and from high altitudes;
- Bend, stretch, twist, or reach out;
- Be able to lift relatively heavy materials, tools and equipment;
- Coordinate movement of several parts of the body, such as arms and legs, while the body is moving;
- Be able to withstand feelings of wetness, itching, burning or coldness on the body;
- Etc.

## **ANNEX A**

### **Criteria for Assessments based on this NOS**

#### **A.1 Guidelines for Assessment**

**A.1.1** Criteria for assessment for curricula and learning programmes based on this NOS will be created by curricula and programmes developers. Each Performance Criteria (PC) will be assigned marks proportional to its importance in the NOS. Curricula and programmes developers will also lay down proportion of marks for theory and practical skills for each performance criteria, giving more weight to practical skills.

There shall be allocated the 'Total Mark', which will be the sum of all marks in each Unit, distributed across the number of PCs in that particular Unit. The 'Out Of' mark will be the mark allocated to each PC, which will be shared between theory and practical skills assessments.

**A.1.2** Awarding/assessment bodies or institutions and other users of the NOS will create unique question papers for the theory part and evaluations for skill practical part for their respective candidates.

## ANNEX B NOS Version Control

This Annex gives details necessary for the tracking of the NOS versions based on the number of revisions.

<b>NOS Code</b>	NOS.SAO.01		
<b>ZQF Level</b>	7	<b>Version Number</b>	01
<b>Sector</b>	Agriculture	<b>Date of Approval</b>	September, 2020
<b>Sub-sector</b>	Agriculture Extension and Advisory Services	<b>Date of Last Review</b>	N/A
<b>Occupation</b>	Agricultural Production Information Supervisor	<b>Date of Next Review</b>	October, 2025







## **REGISTERED OFFICE**

Zambia Qualifications Authority  
Ground Floor, Finsbury Park  
P.O Box 51103  
Lusaka,Zambia

**Tel:** +260 211 843050/ 843053

**Mobile:** + 260 963 922 730/ 0956 037 185 / 0972 559 301

**Email:** [info@zaqa.gov.zm](mailto:info@zaqa.gov.zm)

**Website:** [www.zaqa.gov.zm](http://www.zaqa.gov.zm)