

## QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR AGRICULTURE

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### What are Occupational Standards(OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

#### Contact Us:

Agriculture Skill Council of India, K 59, South City I, Gurgaon – 122 018, Haryana

E-mail: [ceo@asci-india.com](mailto:ceo@asci-india.com)



### Introduction

## Qualifications Pack – Tractor Operator

**SECTOR:** AGRICULTURE

**SUB-SECTOR:** Farm Mechanization

**OCCUPATION:** Farm Machinery and Equipment Operation and Maintenance

**REFERENCE ID:** AGR / Q1101

**ALIGNED TO:** NCO-2004/8331.1

**Tractor and Operator:** The individual is responsible for the operation of the tractors for agriculture purposes and also is responsible for the maintenance of the same.

**Brief Job Description:** The person continuously keeps the vehicle free of any complaints, takes up basic repairs wherever feasible and are necessary and also would take up various agriculture activities as per the needs of the farmers.

**Personal Attributes:** The operator should work independently, sensitive to farmer's needs and must have the ability to take up maintenance and repairs (minor) of the tractor as and when necessary. Should possess basic understanding and acumen towards crop cultivation. The individual should be result oriented and is responsible for his own working and learning.

## Job Details

<b>Qualifications Pack Code</b>	<b>AGR/ Q1101</b>		
<b>Job Role</b>	<b>Tractor Operator</b> The job role is applicable for national scenario and international		
<b>Credits(NSQF)</b>	<b>TBD</b>	<b>Version number</b>	<b>1.1</b>
<b>Sector</b>	<b>Agriculture And Allied</b>	<b>Drafted on</b>	<b>25/02/14</b>
<b>Sub-sector</b>	<b>Agriculture Crop Production</b>	<b>Last reviewed on</b>	<b>15/03/15</b>
<b>Occupation</b>	<b>Farm Machinery, Equipment Operation And Maintenance</b>	<b>Next review date</b>	<b>31/03/16</b>

<b>Job Role</b>	<b>Tractor operator</b>
<b>Role Description</b>	Field operation and daily maintainance of tractor
<b>NSQF level</b>	4
<b>Minimum Educational Qualifications*</b>	10 <sup>th</sup> Standard Passed
<b>Maximum Educational Qualifications*</b>	Not Applicable
<b>Training</b> (Suggested but not mandatory)	Should have known driving and have a driving license issues by competent authority.
<b>Experience</b>	Not Applicable
<b>Applicable National Occupational Standards (NOS)</b>	<b>Compulsory:</b> <ol style="list-style-type: none"> <li><a href="#">AGR / N1101 Operation of the tractor</a></li> <li><a href="#">AGR / N1102 Tractor Maintenance</a></li> <li><a href="#">AGR / N9903 Maintain health &amp; Safety at the work place</a></li> </ol> <b>Optional: NA</b>
<b>Performance Criteria</b>	As described in the relevant OS units

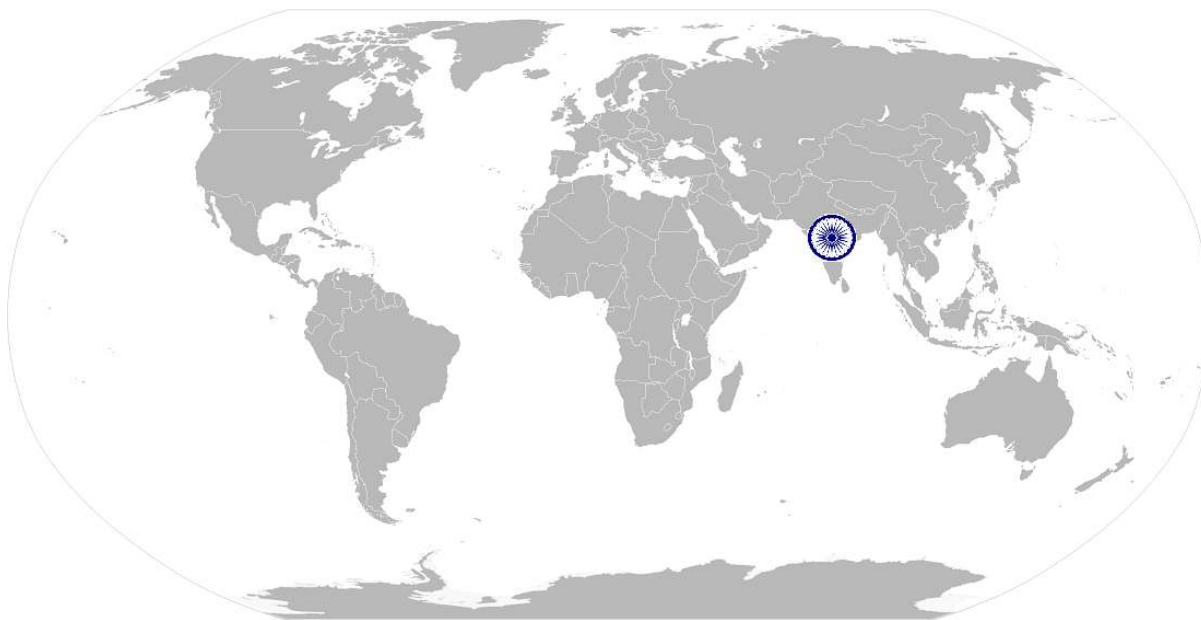
## Definitions

Keywords /Terms	Description
Sector	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	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
Function	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 OS.
Job Role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
OS	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
NOS	NOS are Occupational Standards which apply uniquely in the Indian context.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Qualifications Pack	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
Unit Code	Unit Code is a unique identifier for an Occupational Standard, which is denoted by an 'N'.
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard.
Organizational Context	Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills or Generic Skills	Core Skills or 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 OS, these include communication related skills that are applicable to most job roles.

Acronyms	Keywords /Terms	Description
	OS	Occupation Standard
	NOS	National Occupation Standard
	NSQF	National Skills Qualification Framework
	Agr	Agriculture

**AGR / N1101 Operation of the Tractor**

# National Occupational Standard



## Overview

**This unit is about Tractor Operation.**

## AGR/ N1101 Operation of the Tractor

National Occupational Standard

<b>Unit Code</b>	<b>AGR / N1101</b>
<b>Unit Title (Task)</b>	<b>Operation of the tractor</b>
<b>Description</b>	This OS is for a Tractor Operator who is responsible for its daily operations.
<b>Scope</b>	This unit/task covers the following: <ul style="list-style-type: none"> <li>• Do the daily checks</li> <li>• Ballasting importance and process</li> <li>• PC and DC levers</li> <li>• Gear and RPM selection</li> <li>• Implements and Trailer</li> <li>• Land preparation requirement and do the land opening</li> <li>• Use of implement for tractor</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Do the daily checks</b>	To be competent, the individual on the job must be able to: PC.1 Lubricate rear axle bearing (daily/periodically as per the equipment manufacturer's recommendation) PC.2 Check engine oil level PC.3 Check transmission oil level PC.4 Check steering box oil level PC.5 Check coolant level PC.6 Drain water and sediment from fuel filter PC.7 Lubricate tie rod ends PC.8 Lubricate Steering spindles PC.9 Lubricate front axle pivot pin PC.10 Lubricate clutch linkage, throttle linkage hand, foot linkage and all hinges PC.11 Clean pre-cleaner PC.12 Check for leakages if any PC.13 Check the working of all lights PC.14 Check tightness of wheel nuts PC.15 Apply nipple greasing (once in 50 hours for dry land and once in 10 hours for wet land recommended)
<b>Ballasting importance and process</b>	PC.16 Use of ballasting as per the need
<b>PC &amp; DC levers or Hydraulic lift performance</b>	PC.17 Operate PC & DC levers as per the need and in combination for mixed control/blending PC.18 Hydraulic lift performance with weight fitted to lower links - check: Draft control Position control



## AGR/ N1101 Operation of the Tractor

	Response control
<b>Gear &amp; RPM selection</b>	PC.19 Do proper gear & RPM selection
<b>Implements And Trailer</b>	PC.20 Classify tillage implements into Primary tillage implements, Secondary Tillage implements, levelling equipment and trailer PC.21 Classify CAT I and II implements PC.22 Select proper implement for a specific function PC.23 Take precautions before using Implements and Trailer
<b>Land Preparation Requirement &amp; Land Opening</b>	PC.24 Select and suggest the implements as per the need of the farmer PC.25 Calibrate seed drill as per requirement PC.26 PC.27 Take up the following function: <ul style="list-style-type: none"> <li>Land preparation: Primary tillage and secondary tillage</li> <li>Levelling of field</li> <li>Intercultural operation (Weed control and tilling)</li> <li>Puddling</li> <li>Side dressing of fertilisers in row crops</li> <li>Spraying pesticides and herbicides</li> <li>Harvesting of crop with suitable machinery attachment</li> <li>Haulage of farm produce</li> <li>Adjustment of wheel track</li> <li>Adjustment of Top link</li> <li>Adjustment of Chain guider</li> <li>PTO speed as per selected PTO operated implements, equipments and machinery</li> <li>Measurement of wheel slippage</li> <li>Fuel Consumption/hr or acre</li> </ul>
<b>Use Of Implement For Tractor</b>	PC.28 Do Lateral & horizontal adjustments of Implements PC.29 Do Hitching and unhitching the implement from tractor
<b>Tractor operation</b>	PC.30 Functions of gauges & controls PC.31 Wheel track setting- application & demo PC.32 Hitching & unhitching of implements PC.33 Types of implements & their use, methods of field operation and field running adjustments PC.34 Preparing the tractor for field operation PC.35 Adjustment of clutch & Brake
<b>Knowledge and Understanding (K)</b>	
<b>A. Agro Climatic Zone</b>	The individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>SA1. Various climatic parameters such as maximum and minimum temperatures, intensity and distribution of precipitation (rainfall), relative humidity etc., that affect field operations</li> <li>SA2. Topography, condition of land, type of soil, moisture level of soil, type of previous crop and crop to be sown, method of sowing, depth of sowing</li> </ul>

## AGR/ N1101 Operation of the Tractor

<b>B. Understanding Of Implements</b>	<p>The individual on the job needs to know and understand:</p> <p>KB1. Selection of suitable implements, equipments and machineries for different field operation according to hp of tractor, pto speed, topography, soil, crop and sowing method</p> <p>KB2. Hitching &amp; unhitching of implements, various process of agricultural practices, types of implements &amp; their use, methods of field operation, preparing the tractor and implement, equipment and machinery for field operation</p> <p>KB3. Method and depth of ploughing, seed bed preparation according to crops &amp; sowing depth and spraying height and height of harvesting</p> <p>KB4. All implements that can be attached and how</p> <p>KB5. Importance of depth and width of cut</p> <p>KB6. Importance of Mast Height</p> <p>KB7. Methods of ploughing (casting &amp; gathering)</p>
<b>C. Know Fuel Saving Tips</b>	<p>The individual on the job needs to know and understand:</p> <p>KC1. Right way of operating to ensure proper fuel usage</p> <p>Selection of proper gear, pto speed, rpm of engine</p>
<b>D. Understanding Dash Board</b>	<p>The individual on the job needs to know and understand:</p> <p>KD1. All the functions mentioned on the dash board such as</p> <ul style="list-style-type: none"> <li>• PTO Engaged Indicator</li> <li>• Fuel Gauge</li> <li>• Air Restriction Indicator</li> <li>• High Beam Indicator</li> <li>• Hour Meter</li> <li>• Charging System Indicator</li> <li>• Engine oil Pressure Indicator</li> <li>• Coolant Temperature Gauge</li> <li>• Hour cum RPM meter</li> <li>• Turn Signal Direction Indicator</li> <li>• PTO speed Indicator (540/1100 rpm)</li> <li>• 4-wheel drive indicator</li> <li>• Transmission – neutral indicator</li> <li>• Parking brake indicator</li> <li>• Service due indicator</li> <li>• Water in fuel indicator</li> <li>• Engine high temperature indicator</li> <li>• Hazard indicator</li> </ul>
<b>E. Tractor Controls &amp; Levers</b>	<ul style="list-style-type: none"> <li>• The individual on the job needs to know and understand the operation of:</li> <li>KE.1 Hand Throttle</li> <li>KE.2 Steering Wheel</li> <li>KE.3 Horn</li> <li>KE.4 Light Switch</li> <li>KE.5 Key Switch</li> <li>KE.6 Hazard Switch</li> </ul>



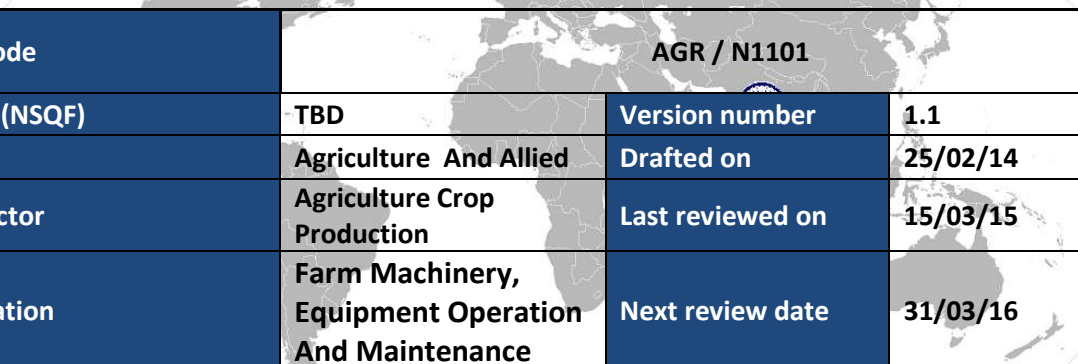
## AGR/ N1101 Operation of the Tractor

	KE.7 Turn Signal Switch KE.8 Clutch Pedal KE.9 Fuel shut of knob KE.10 Foot Throttle KE.11 Brake pedal KE.12 Effectiveness of hand brake KE.13 Selective Control Lever KE.14 Rockshaft Position Control Lever KE.15 Rockshaft Draft Control Lever KE.16 Gear Shaft Lever KE.17 PTO Clutch Lever KE.18 Range Shaft lever KE.19 Rockshaft rate of drop valve KE.20 Differential Lock Pedal KE.21 Isolator valve KE.22 Reverse PTO lever KE.23 PTO lever KE.24 Forward-reverse shuttle KE.25 Plough lamp switch KE.26 Driver's seat adjustment KE.27 7-pole socket
<b>F. Safety</b>	The individual on the job needs to know and understand: KF.1 Driving and must possess a tractor driving license issued by an authorized body. KF.2 Traffic signs / road safety regulations awareness KF.3 Recommendations of the manufacturer for implementation usage KF.4 Safe methods of handling the tools KF.5 First aid KF.6 Stickers and safety logos. KF.7 HIV awareness
<b>Skills (S) [Optional]</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Reading and Comprehension Skills</b>
	The individual on the job needs to know and understand how to: SA1. Read and write.
	<b>Behavior and Oral Communication (Listening and Speaking skills)</b>
	The individual on the job needs to know and understand how to: SA2. Maintain effective working relationships SA3. Communicate clearly and effectively with others like farmers, concerned officer/stakeholders SA4. Co-operate with others in accordance with required procedures SA5. understand information and grasp its meaning SA6. Seek advice from seniors
<b>B. Professional Skills</b>	<b>Decision Making</b>

## AGR/ N1101 Operation of the Tractor

	The individual on the job needs to know and understand how to: SB1. Make decisions pertaining to the concerned area of work SB2. Identify problems that may arise in carrying out tasks and take preventive action
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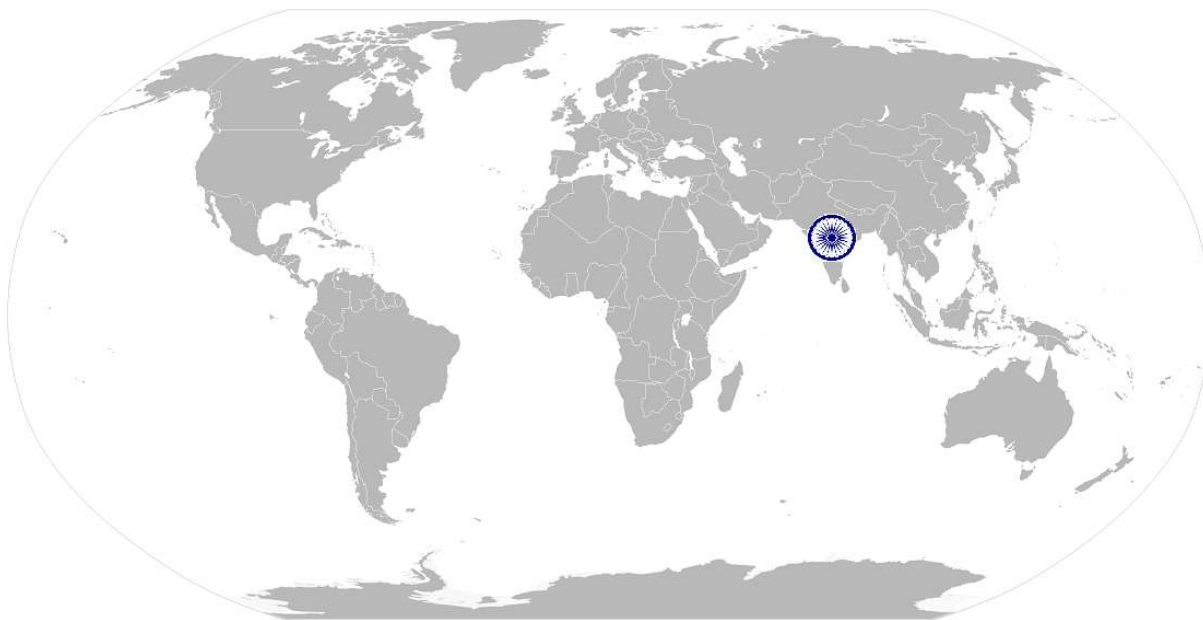
## NOS Version Control



<b>NOS Code</b>	<b>AGR / N1101</b>		
<b>Credits(NSQF)</b>	<b>TBD</b>	<b>Version number</b>	<b>1.1</b>
<b>Sector</b>	<b>Agriculture And Allied</b>	<b>Drafted on</b>	<b>25/02/14</b>
<b>Sub-sector</b>	<b>Agriculture Crop Production</b>	<b>Last reviewed on</b>	<b>15/03/15</b>
<b>Occupation</b>	<b>Farm Machinery, Equipment Operation And Maintenance</b>	<b>Next review date</b>	<b>31/03/16</b>

**AGR / N1102 Tractor Maintenance**

# National Occupational Standard



## Overview

## AGR / N1102 Tractor Maintenance

This unit is about Tractor Maintenance detailing.

<b>Unit Code</b>	<b>AGR / N1102</b>
<b>Unit Title (Task)</b>	<b>Tractor Maintenance</b>
<b>Description</b>	This OS is for a Tractor Operator who is responsible for its maintenance.
<b>Scope</b>	This unit/task covers the following: <ul style="list-style-type: none"> <li>• Study and follow of owner's manual</li> <li>• Obtaining certified tools</li> <li>• Check and maintain fluids regularly/ lubrication points</li> <li>• Ensure right tyre pressure</li> <li>• Check belts and hoses</li> <li>• Brake and clutch adjustment</li> <li>• Check working of all the electrical systems and gauges</li> <li>• Avoid overloading</li> <li>• Attachment and detachment of Implements</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Study And Follow Of Owner's Manual</b>	To be competent, the individual on the job must be able to: PC.36 Follow intervals for routine maintenance PC.37 Lubricate different parts of the tractor PC.38 Follow basic operating instructions
<b>Obtaining Certified Tools</b>	PC.39 Procure maintenance tools that are certified for such operations from a recognized body.
<b>Check And Maintain Fluids Regularly/ Lubrication Points</b>	PC.40 Check the engine oil PC.41 Check the transmission fluid/ hydraulic oil PC.42 Check the coolant in the radiator/ reservoir tank PC.43 Bleeding of fuel system PC.44 Clean oil bath/dry type air cleaner PC.45 Check engine, transmission, hydraulic, steering oil level and topping up if necessary PC.46 Replace fuel filters and electrical fuses PC.47 Check battery electrolyte level
<b>Ensure Right Tyres Pressure</b>	PC.48 Ensure all the tyres have the right inflation pressure as per the usage of the tractor PC.49 Remove and refit tyres for puncture
<b>Check Belts And Hoses</b>	PC.50 If fittings or connections are leaking, tighten them or replace the seals.

## AGR / N1102 Tractor Maintenance

<b>Brake And Clutch Adjustment</b>	PC.51 Ensure proper adjustment of the brake and clutch, and make sure the brakes and clutches free play are adjusted properly PC.52 Ensure that brake paddle latch should be engaged while driving on road.
<b>Check Working Of All The Electrical Systems And Gauges</b>	PC.53 Always ensure the right temperature, oil pressure and hour meter PC.54 Ensure working of headlights, brake lights and horns.
<b>Avoid Overloading</b>	To be competent, the individual on the job must be able to: PC.55 Always use a recommended load as suggested by the manufacturer.
<b>Attachment And Detachment Of Implements</b>	PC.56 Attachment and detachment of Implements
<b>Knowledge and Understanding (K)</b>	
<b>A. Agro Climatic Zone</b>	The individual on the job needs to know and understand: SA3. Various climatic parameters such as maximum and minimum temperatures, intensity and distribution of precipitation (rainfall), relative humidity etc.,
<b>B. Understanding Of Implements</b>	The individual on the job needs to know and understand: KB8. Know which all implements can be attached and how
<b>C. Safety</b>	The individual on the job needs to know and understand: KC1. Safe methods of handling the tools KC2. First aid KC3. Understand the stickers and safety logos KC4. HIV awareness
<b>Skills (S) [Optional]</b>	
<b>C. Core Skills/ Generic Skills</b>	<b>Reading and Comprehension Skills</b>
	The individual on the job needs to know and understand how to: SA7. Read and write.
	<b>Behavior and Oral Communication (Listening and Speaking skills)</b>
	The individual on the job needs to know and understand how to: SA8. Maintain effective working relationships SA9. Communicate clearly and effectively with others like farmers, concerned officer/stakeholders SA10. Co-operate with others in accordance with required procedures SA11. Understand information and grasp its meaning SA12. Seek advice from seniors
<b>D. Professional Skills</b>	<b>Decision Making</b>
	The individual on the job needs to know and understand how to: SB3. Make decisions pertaining to the concerned area of work SB4. Identify problems that may arise in carrying out tasks and take preventive action following farm procedures

## AGR / N1102 Tractor Maintenance

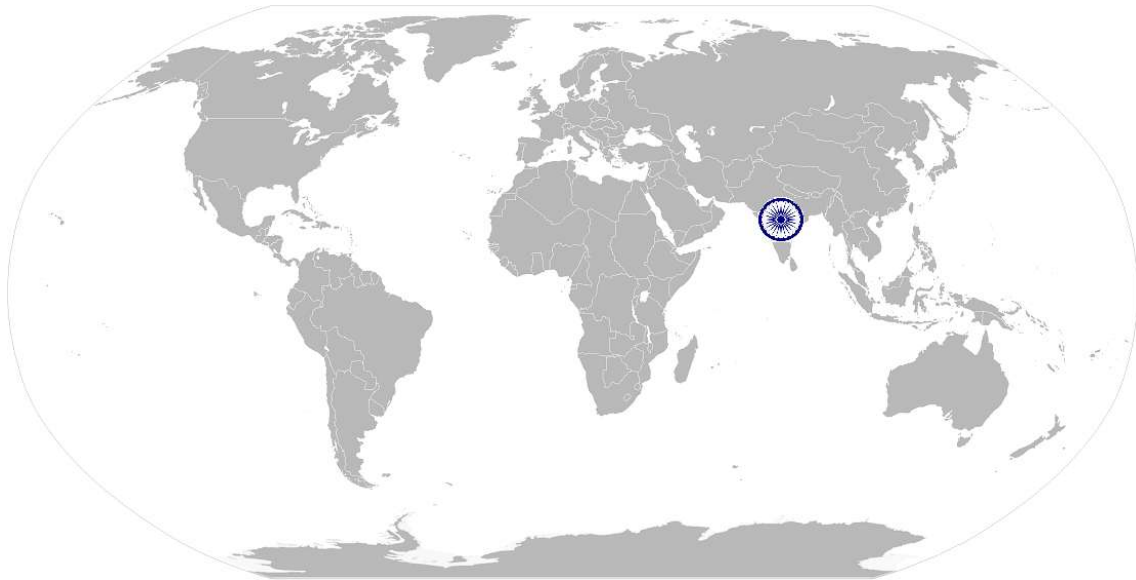
### NOS Version Control

NOS Code	AGR / N1102		
Credits(NSQF)	TBD	Version number	1.1
Sector	Agriculture And Allied	Drafted on	25/02/14
Sub-sector	Agriculture Crop Production	Last reviewed on	15/03/15
Occupation	Farm Machinery, Equipment Operation And Maintenance	Next review date	31/03/16



**AGR / N9903 Maintain health & Safety at the work place**

# National Occupational Standard




## Overview

This unit is about dealing with health and safety of the farmers and co workers at workplace

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## AGR / N9903 Maintain health & Safety at the work place

National Occupational Standard

<b>Unit Code</b>	<b>AGR/N9903</b>
<b>Unit Title (Task)</b>	<b>Maintain health and safety at the workplace</b>
<b>Description</b>	This OS is for the cultivator who is responsible for maintaining health and safety of self and others co workers at workplace
<b>Scope</b>	This unit/task covers the following: <ul style="list-style-type: none"> <li>• Maintain clean and efficient workplace</li> <li>• Render appropriate emergency procedures</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Maintaining clean and efficient workplace</b>	To be competent, the individual must be able to: <ul style="list-style-type: none"> <li>PC1. undertake basic safety checks before operation of all machinery and vehicles and hazards are reported to the appropriate supervisor</li> <li>PC2. work for which protective clothing or equipment is required is identified and the appropriate protective clothing or equipment is used in performing these duties in accordance with workplace policy.</li> <li>PC3. read and understand the hazards of use and contamination mentioned on the labels of pesticides/fumigants etc </li> <li>PC4. assess risks prior to performing manual handling jobs, and work according to currently recommended safe practice.</li> <li>PC5. use equipment and materials safely and correctly and return the same to designated storage when not in use</li> <li>PC6. dispose of waste safely and correctly in a designated area</li> <li>PC7. recognise risks to bystanders and take action to reduce risk associated with jobs in the workplace</li> <li>PC8. perform your work in a manner which minimizes environmental damage all procedures and work instructions for controlling risk are followed closely.</li> <li>PC9. report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger.</li> </ul>
<b>Render appropriate emergency procedures</b>	To be competent, the individual must be able to: <ul style="list-style-type: none"> <li>PC10. follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to emergency.</li> <li>PC11. follow emergency procedures to company standard / workplace requirements</li> <li>PC12. use emergency equipment in accordance with manufacturers' specifications and workplace requirements</li> <li>PC13. provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques</li> <li>PC14. recover (if practical), clean, inspect/test, refurbish, replace and store the first</li> </ul>

**AGR / N9903 Maintain health & Safety at the work place**

	aid equipment as appropriate PC15. report details of first aid administered in accordance with workplace procedures.
<b>Knowledge and Understanding (K)</b>	
<b>A. Maintain clean and efficient workplace</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KA 1. personal hygiene and fitness requirements</p> <p>KA 2. your general duties under the relevant health and safety legislation</p> <p>KA 3. what personal protective equipment and clothing should be worn and how it is cared for</p> <p>KA 4. the correct and safe way to use materials and equipment required for your work</p> <p>KA 5. the importance of good housekeeping in the workplace</p> <p>KA 6. safe disposal methods for waste</p> <p>KA 7. methods for minimizing environmental damage during work</p>
<b>B. Render appropriate emergency procedures</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KA 8. the risks to health and safety and the measures to be taken to control those risks in your area of work</p> <p>KA 9. workplace procedures and requirements for the treatment of workplace injuries/illnesses.</p> <p>KA 10. basic emergency first aid procedure</p> <p>KA 11. local emergency services</p> <p>KA 12. why accidents, incidents and problems should be reported and the appropriate action to take</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Writing Skills</b>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. mention the data which are required for record keeping purpose</p> <p>SA2. report problems to the appropriate personnel in a timely manner</p> <p>SA3. write descriptions and details about incidents in reports</p>
	<b>Reading and Comprehension Skills</b>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA4. read instruction manual for hand tool and equipments</p>
	<b>Oral Communication (Listening and Speaking skills)</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. communicate clearly and effectively with others like farmers, concerned officer/stakeholders</p> <p>SA6. comprehends information shared by senior people and experts</p>
<b>B. Professional Skills</b>	<b>Decision Making</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. make decisions pertaining to types of tools to be used</p> <p>SB2. identify need of first aid and render it accordingly</p>
	<b>Plan and Organize</b>

## AGR / N9903 Maintain health & Safety at the work place

	The user/individual on the job needs to know and understand how to: SB3. schedule daily activities and drawing up priorities; allocate start times, estimation of completion times and materials, equipment and assistance required for completion.
	<b>Human Centricity</b>
	The user/individual on the job needs to know and understand how to: SB4. manage relationships with co-workers and managers of the who may be stressed, frustrated, confused or angry
	<b>Analytical Thinking</b>
	The user/individual on the job needs to know and understand how to: SB5. monitor and maintain the condition of tools and equipment SB6. assess situation & identify appropriate control measures

## NOS Version Control

NOS Code	AGR/N9903		
Credits(NSQF)	TBD	Version number	1.1
Sector	Agriculture And Allied	Drafted on	25/02/14
Sub-sector	Agriculture Crop Production	Last reviewed on	15/03/15
Occupation	Farm Machinery, Equipment Operation And Maintenance	Next review date	31/03/16

## Annexure

### Nomenclature for QP and NOS

#### Qualifications Pack

9 characters  
[ABC]/ Q 0101

[Insert 3 letter code for SSC]

Q denoting Qualifications Pack

QP number (2 numbers)

Occupation (2 numbers)

#### Occupational Standard

An example of NOS with 'N'

9 characters  
[ABC] / N 0101

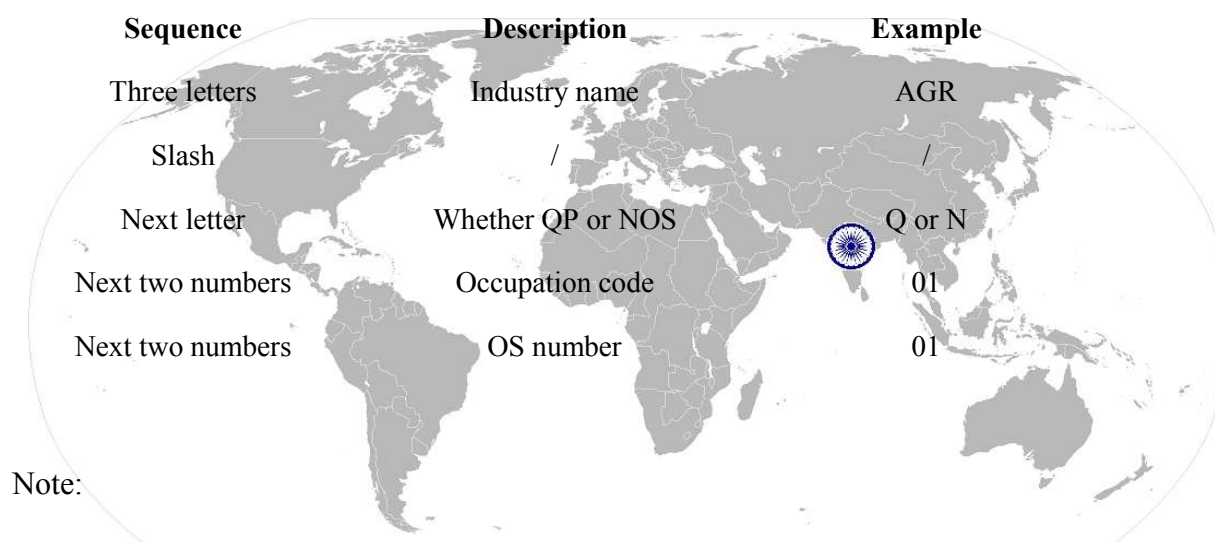
[Insert 3 letter code for SSC]

N denoting National Occupational Standard

OS number (2 numbers)

Occupation (2 numbers)

Sub-sector	Range of Occupation numbers
<b>Agriculture Crop Production</b>	<b>01 – 40</b>
<b>Agriculture Allied Activities</b>	<b>41 – 60</b>
<b>Forestry, Environment and Renewable Energy Management</b>	<b>61 - 70</b>
<b>Agriculture Industries</b>	<b>71 – 90</b>
<b>Generic Occupations</b>	<b>96 - 99</b>



Note:

- The range of occupation numbers have been decided based on the number of existing and future occupations in a segment

Occupation numbers from 91 – 95 have been intentionally left blank to accommodate any emerging segment in future.



## CRITERIA FOR ASSESSMENT OF TRAINEES

**Job Role**

**Tractor Operator**

**Qualification Pack**

**AGR/Q1101**

**Sector Skill Council**

**Agriculture**

### Guidelines for Assessment:

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create *unique question papers for theory part for each candidate at each examination/training center* (as per assessment criteria below)
4. Individual assessment agencies will create *unique evaluations for skill practical for every student at each examination/training center* based on this criteria
5. To pass the Qualification Pack, every trainee should score a minimum of 50% in aggregate and 30% in each NOS
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.
7. The marks are allocated PC wise, however, every NOS will carry a weight age in the total marks allocated to the specific QP.

NOSs	Element	PCs	Total Marks (325)	Out Of	Marks Allocation	
					Theory	Skills Practical
1.AGR/N110 1 Operation of the tractor	Do the daily checks	PC1. Lubricate rear axle bearing	200	10	4	6
		PC2. Check engine oil level		5	2	3
		PC3. Check coolant level		5	2	3
		PC4. Drain water and sediment from fuel filter		5	2	3
		PC5. Lubricate tie rod ends		10	4	6
		PC6. Lubricate Steering spindles		10	4	6
		PC7. Lubricate front axle pivot pin		10	4	6
	Ballasting importance and process	PC8. Use of ballasting as per the need		10	4	6
	PC & DC levers	PC9. Operate PC & DC levers as per the need		10	4	6
	Gear & RPM selection	PC10. Do proper gear & RPM selection		10	4	6

	<b>Implements And Trailer</b>	PC11. Classify tillage implements into Primary tillage implements, Secondary Tillage implements, levelling equipment and trailer		5	5	0
		PC12. Select proper implement for a specific function		5	2	3
		PC13. Take precautions before using Implements and Trailer		10	10	0
	<b>Land Preparation Requirement &amp; Land Opening</b>	PC14. Select and suggest the implements as per the need of the farmer		10	4	6
		PC15. Take up the following function:			0	0
		• Reducing ped size		5	2	3
		• Weed control		5	5	0
		• Incorporation of fertilizers		5	5	0
		• Puddling		5	5	0
		• Leveling soil surface		5	5	0
		• wheel track adjustment		5	2	3
		• Do sway chain adjustment		5	1	4
		• Position and adjust the Centre link		5	2	3
		• Measure wheel slippage		5	2	3
	<b>Use Of Implement For Tractor</b>	PC1. Do Lateral & horizontal adjustments of Implements		20	8	12
		PC2. Do Hitching and unhitching the implement from tractor		20	8	12
				200	100	100
2.AGR/N110 2 Tractor Maintenance	<b>Study And Follow Of Owner's Manual</b>	PC1. Follow intervals for routine maintenance	100	5	5	0
		PC2. Lubricate different parts of the tractor		10	4	6
		PC3. Follow basic operating instructions		10	10	0
	<b>Obtaining Certified Tools</b>	PC4. Procure maintenance tools that are certified for such operations from a recognized body.		5	5	0

	<b>Check And Maintain Fluids Regularly/ Lubrication Points</b>	PC5. Check the engine oil		5	2	3
		PC6. Check the transmission fluid/ hydraulic oil		5	2	3
		PC7. Check the coolant in the radiator/ reservoir tank		5	2	3
	<b>Ensure Right Tyres Pressure</b>	PC8. Ensure all the tyres have the right inflation pressure as per the usage of the tractor		5	2	3
	<b>Check Belts And Hoses</b>	PC9. If fittings or connections are leaking, tighten them or replace the seals.		10	4	6
	<b>Brake And Clutch Adjustment</b>	PC10. Ensure proper adjustment of the brake and clutch, and make sure the brakes and clutches free play are adjusted properly		10	4	6
		PC11. Ensure that brake paddle latch should be engaged while driving on road.		10	4	6
	<b>Check Working Of All The Electrical Systems And Gauges</b>	PC12. Always ensure the right temperature, oil pressure and hour meter		5	2	3
		PC13. Ensure working of headlights, brake lights and horns.		5	2	3
	<b>Avoid Overloading</b>	PC14. Always use a recommended load as suggested by the manufacturer.		5	5	0
	<b>Attachment And Detachment Of Implements</b>	PC15. Attachment and detachment of Implements		5	2	3
				100	55	45
3.AGR/N990 3 Maintain health & Safety at the workplace	<b>Maintaining clean and efficient workplace</b>	PC1.Undertake basic safety checks before operation of all machinery and vehicles and hazards are reported to the appropriate supervisor	25	5	5	0
		PC2.work for which protective clothing or		2	2	0

		equipment is required is identified and the appropriate protective clothing or equipment is used in performing these duties in accordance with workplace policy.			
		PC3.Read and understand the hazards of use and contamination mentioned on the labels of pesticides/fumigants etc	1	1	0
		PC4.Assess risks prior to performing manual handling jobs, and work according to currently recommended safe practice.	1	1	0
		PC5.Use equipment and materials safely and correctly and return the same to designated storage when not in use	4	4	0
		PC6.Dispose of waste safely and correctly in a designated area	3	3	0
		PC7.Recognise risks to bystanders and take action to reduce risk associated with jobs in the workplace	1	1	0
		PC8.Perform your work in a manner which minimizes environmental damage all procedures and work instructions for controlling risk are followed closely.	1	1	0
		PC9.Report any accidents, incidents or problems without delay to an appropriate person and take necessary immediate action to reduce further danger.	1	1	0
	<b>Render appropriate emergency procedures</b>	PC10.Follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to emergency.	1	1	0
		PC11.Follow emergency	1	1	0

	procedures to company standard / workplace requirements					
	PC12.Use emergency equipment in accordance with manufacturers' specifications and workplace requirements		1	1	0	
	PC13.Provide treatment appropriate to the patient's injuries in accordance with recognized first aid techniques		1	1	0	
	PC14.Recover (if practical), clean, inspect/test, refurbish, replace and store the first aid equipment as appropriate		1	1	0	
	PC15.Report details of first aid administered in accordance with workplace procedures.		1	1	0	
			25	25	0	
<b>Total</b>			<b>325</b>	<b>180</b>	<b>145</b>	