

# Model Curriculum

## Cold Storage Supervisor

**SECTOR: AGRICULTURE & ALLIED**

**SUB-SECTOR: Agriculture Industries**

**OCCUPATION: Post-harvest Supply Chain Management**

**REF ID: AGR/Q7505, v1.0**

**NSQF LEVEL: 5**



## Certificate

### **CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS**

is hereby issued by the

**AGRICULTURE SKILL COUNCIL OF INDIA**

for the

**MODEL CURRICULUM**

Complying to National Occupational Standards of  
Job Role/Qualification Pack: 'Cold Storage Supervisor' OP No. 'AGR/O7505 NSQF Level 5'

Date of Issuance: June 30<sup>th</sup>, 2015

Valid up to: March 31<sup>st</sup>, 2017

\* Valid up to the next review date of the Qualification Pack



Authorised Signatory  
(Agriculture Skill Council of India)

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# Cold Storage Supervisor

## CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Cold Storage Supervisor”, in the “Agriculture & Allied” Sector/Industry and aims at building the following key competencies amongst the learner

<b>Program Name</b>	<b>Cold Storage Supervisor</b>		
<b>Qualification Pack Name &amp; Reference ID. ID</b>	AGR/Q7505, v1.0		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	
<b>Pre-requisites to Training</b>	12th		
<b>Training Outcomes</b>	<p><b>After completing this programme, participants will be able to:</b></p> <ul style="list-style-type: none"> <li>• <b>Estimate and procure required resource:</b> Introduction to Cold Storage, Estimate the required resource, Identification of Supplier, Procurement, Quality Check</li> <li>• <b>Maintain the Cold Storage Infrastructure:</b> Identify the different cold storage infrastructure and equipments and maintenance</li> <li>• <b>Supervise the workers:</b> Distribution of Workers, guide and direct the workers, supervision of workers</li> <li>• <b>Maintain Health and safety at the work place:</b> Hygiene Maintenance, safety and welfare of the workers</li> </ul>		

This course encompasses 4 out of 4 National Occupational Standards (NOS) of “Cold Storage Supervisor” Qualification Pack issued by “Agriculture Skill Council of India”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<b>Introduction</b>  <b>Theory Duration</b> (hh:mm) 5:00  <b>Practical Duration</b> (hh:mm) 0:00  <b>Corresponding NOS Code</b>	<ul style="list-style-type: none"> <li>Understand General Discipline in the class room (Do's &amp; Don'ts)</li> <li>Study the Scope of preservation/storage of packed fruits and vegetables</li> <li>Understand the Role of a Cold Storage Supervisor</li> </ul>	Laptop, white board, marker, projector
2	<b>Estimate and procure required resources</b>  <b>Theory Duration</b> (hh:mm) 10:00  <b>Practical Duration</b> (hh:mm) 25:00  <b>Corresponding NOS Code</b> AGR/N7519	<ul style="list-style-type: none"> <li>Estimate the required resources as per the market needs</li> <li>Identify the Potential supplier</li> <li>Contact the supplier and place the order for purchasing of the resource</li> <li>Procurement of Quality resource/ input</li> <li>Record the input received, defects, etc</li> <li>Understand the Quality Standard</li> <li>Check the Quality of the produce</li> <li>Basic knowledge of procure specific diseases</li> </ul>	Laptop, white board, marker, projector,
3	<b>Maintain Cold Storage infrastructure</b>  <b>Theory Duration</b> (hh:mm) 23:00  <b>Practical Duration</b> (hh:mm) 23:00  <b>Corresponding NOS Code</b> AGR/ N7520	<ul style="list-style-type: none"> <li>Understand the cold storage environment and working conditions</li> <li>Maintain Cold Storage infrastructure               <ul style="list-style-type: none"> <li>Perform visual inspection</li> <li>Check all the equipments</li> <li>Identify the problems</li> <li>Temperature adjustment</li> <li>Ventilation requirement</li> <li>Hygiene maintenance</li> </ul> </li> </ul>	Laptop, white board, marker, projector,
4	<b>Supervise the cold storage workers</b> (hh:mm) 16:00  <b>Practical Duration</b> (hh:mm) 16:00  <b>Corresponding NOS Code</b>	<ul style="list-style-type: none"> <li>Understand and divide the work as per the priority</li> <li>Distribute the work among workers</li> <li>Monitor the workers</li> <li>Guide the workers</li> <li>Be friendly, understanding and supportive to the workers</li> </ul>	Laptop, white board, marker, projector,

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	AGR/N7521		
5	<p><b>Maintain Health and safety at cold storage premises</b></p> <p><b>Theory Duration</b> (hh:mm) 16:00</p> <p><b>Practical Duration</b> (hh:mm) 16:00</p> <p><b>Corresponding NOS Code</b> AGR/N7522</p>	<ul style="list-style-type: none"> <li>Understand the safety measures at work place</li> <li>Maintain general safety measures of Cold Storage</li> <li>Maintain a clean &amp; efficient work environment</li> <li>Render appropriate emergency procedures</li> <li>Basic knowledge of Disaster Management</li> </ul>	Laptop, white board, marker, projector,
	<p><b>Total Duration:</b></p> <p><b>Theory Duration</b> (hh:mm) <b>70:00</b></p> <p><b>Practical Duration</b> (hh:mm) <b>80:00</b></p>	<p><b>Unique Equipment Required:</b> Laptop, white board, marker, projector, Cold Storage, Apron</p>	

Grand Total Course Duration: **150 Hours, 0 Minutes**

(This syllabus/ curriculum has been approved by [Agriculture Skill Council of India](#))

## Trainer Prerequisites for Job role: "Cold Storage Supervisor" mapped to Qualification Pack: "AGR/Q7505, v1.0"

Sr. No.	Area	Details
1	<b>Description</b>	Trainer is responsible for educating the trainees – to estimate and organize required supplies & resources for the packed house; monitoring and directing workers to maintain equipments; building; environment for packing of the horticultural produce.
2	<b>Personal Attributes</b>	Trainer should be Subject Matter Expert, he/ she should have good communication skills, leadership skills, observation skills, practical oriented skills
3	<b>Minimum Educational Qualifications</b>	Msc Agriculture/ Horticulture
4a	<b>Domain Certification</b>	Certified for Job Role: <u>"Cold Storage Supervisor"</u> mapped to QP: <u>"AGR/Q7505,v1.0"</u> . Minimum accepted score is 80%.
4b	<b>Platform Certification</b>	Certified for the Job Role: "Trainer", mapped to the Qualification Pack: "SSC/Q1402". Minimum accepted score is 70%
5	<b>Experience</b>	<ul style="list-style-type: none"> <li>2-3 Years of experience in relevant field</li> </ul>

## Annexure: Assessment Criteria

<b>Assessment Criteria</b>	
<b>Job Role</b>	Cold Storage Supervisor
<b>Qualification Pack</b>	AGR/Q7505, v1.0
<b>Sector Skill Council</b>	Agriculture

Sr. No.	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 centre (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 70% in aggregate
6	The marks are allocated PC wise; however, every NOS will carry a weight age in the total marks allocated to the specific QP



Assessable Outcome	Assessment Criteria	Total Mark (400)	Out Of	Marks Allocation	
				Theory	Skills Practical
1.AGR/N7519 Estimate and procure required resources	PC1.estimate the quantity needs as per market needs	<b>120</b>	20	10	10
	PC2.collect information about suppliers providing the required produce in the market at standard quality		10	5	5
	PC3.select right supplier(s) for required materials in consultation with pack house manager as per company's quality standards		15	8	7
	PC4.place order and procure the material from supplier(s) in time bound manner		15	7	8
	PC5.maintain the record of procurement as per company's policy		15	8	7
	PC6.get the quality material in time at the lowest cost		10	5	5
	PC7.check the seal of truck container		10	5	5
	PC8.estimate the unloaded horticultural produce		15	7	8
	PC9.understand the quality of the products		10	5	5
			<b>120</b>	<b>60</b>	<b>60</b>
2.AGR/N7520 Maintain Packhouse infrastructure	PC1.perform visual inspection of pack house equipments daily	<b>100</b>	5	2	3
	PC2.check that all pack house equipments are in working and usable condition		5	3	2
	PC3.check that there are no liquid spillages, blockage or cracks in them		5	2	3
	PC4.ensure that all machines are in working properly		5	3	2

PC5.get the equipments and tools cleaned by workers periodically	5	3	2
PC6.get the equipments and tools repaired whenever they are not in Working condition	5	3	2
PC7.perform visual inspection of the store room infrastructure periodically as per standards	5	3	2
PC8.ensure that external wall are well packed	5	2	3
PC9.ensure the condition of the drainage system are cleaned	5	2	3
PC10.check that there is no seepage in the walls	3	1	2
PC11.get the pack house and its surrounding area cleaned	5	2	3
PC12.ensure that empty rooms are cleaned thoroughly after finishing each lots	5	3	2
PC13.ensure that empty rooms are disinfected thoroughly by fumigation / spray as per company's SOP /	5	2	3
PC14.ensure that all packaging equipment are cleaned	5	3	2
PC15.clean and disinfect the incoming water through chlorination and filtration before being distributed to different working areas	5	2	3
PC16.ensure temperature and moisture content are standard according to the protocol	5	2	3
PC17.adjust temperature of water as per SOP before it enters production units	5	2	3
PC18.ensure the hygienic condition of the store house	4	2	2
PC19.ensure that all the ventilation openings are clean and unobstructed	3	2	1

	PC20.ensure maintenance of adequate air circulations to have consistent good air quality		4	2	2
	PC21.ensure the personal hygiene of the pack house workers		4	2	2
	PC22.ensure the chilling temperature of the store house		2	1	1
			<b>100</b>	<b>49</b>	<b>51</b>
3.AGR/N7521 Supervise Packhouse workers	PC1.plan and co-ordinate the incoming goods, storage and dispatch of goods in a timely and efficient manner	<b>120</b>	10	5	5
	PC2. distribute the work among pack house workers and casual workers to complete day's work		10	5	5
	PC3.distribute materials like personal protective equipment and tools to workers as per the work requirements		10	5	5
	PC4.Communicate the Key Performance Indicators (KPIs) to the workers, as determined by the pack house Manager		10	5	5
	PC5.check out the work and activities to be done every day.		4	2	2
	PC6.monitor grading & packing activity in the pack house.		10	5	5
	PC7.explain the work requirements to workers		5	2	3
	PC8.explain the effective ways to workers for completing their respective work		6	3	3
	PC9.monitor the workers performing their duties and point out if any discrepancy is observed		10	5	5
	PC10.train the workers on how to handle the fruits at different stages of packing		10	5	5
	PC11.report problems to pack house manager in timely manner		5	3	2

	PC12. ensure the quality of the product and service within the pack house as per the customers' specifications		5	3	2
	PC13.asses the quality of the fruits and vegetables		10	5	5
	PC14.identify daily needs of the pack house infrastructure correctly		5	2	3
	PC15.make good work plan on daily basis to ensure quality of the fruits and vegetables which are procured		5	2	3
	PC16.ensure motivated and productive workers in the pack house		5	3	2
			<b>120</b>	<b>60</b>	<b>60</b>
4.AGR/N7522 Maintain Health and Safety at Packhouse/C old storage premises	PC1.identify accidental risks to pack house workers and bystanders and actions to be taken to reduce these risks	<b>60</b>	3	2	1
	PC2.identify work for which protective clothing or equipment is required		2	1	1
	PC3.ensure that pack house workers wear appropriate protective clothing or use equipment while performing those duties		3	1	2
	PC4.ensure that all procedures and work instructions for controlling risk are followed closely		2	1	1
	PC5.ensure safety measures when handling the preservative materials.		3	2	1
	PC6.undertake basic safety checks before operation of all equipments and tools.		3	2	1
	PC7.dispose of waste safely and correctly in a designated area as per company's SOP		3	1	2
	PC8.ensure that pack house workers perform their duties in a manner which minimizes environmental damage		2	1	1

PC9.provide appropriate first aid to pack house workers as per SOP in case of accidents and injuries	2	1	1
PC10.ensure that medical waste is disposed of in accordance with company's SOP and local regulations	2	1	1
PC11.report any accidents, incidents or problems without delay to pack house manager and take necessary immediate action to reduce further danger	3	1	2
PC12. implement the company's Health and Safety Policy, ensuring safe working conditions and practices within the pack house	4	2	2
PC13.represent the department on the Health & Safety Committee as required.	3	1	2
PC14.implement the company's Health and Safety Policy, ensuring safe working Conditions and practices within the pack house	2	1	1
PC15. identify health risks to pack house workers and bystanders and actions to be taken to reduce these risks	3	2	1
PC16.ensure that all procedures and work instructions for controlling health risk are followed closely	2	1	1
PC17.ensure clean and chlorinated water for daily use of workers	2	1	1
PC18.ensure regular preventive health checkup of pack house workers by doctor	2	1	1
PC19.ensure prompt treatment of pack house workers in case of illness noticed by the qualified	2	1	1

doctor				
PC20.follow SOPs for dealing with accidents, fires or any other type of emergencies to prevent human lives		2	1	1
PC21.ensure odorless and clean environment to pack house workers		2	1	1
PC22.ensure no accidental injury to pack house workers		2	1	1
PC23.ensure no productivity loss or absenteeism form work of pack house workers due to illness		2	1	1
PC24.ensure no occupational health hazard to pack house workers		2	1	1
PC25.take overall responsibility for all aspects of the effective supervision training & development and health, safety & welfare of the pack house Workers		2	1	1
		<b>60</b>	<b>30</b>	<b>30</b>
	<b>Total</b>	<b>400</b>	<b>199</b>	<b>201</b>
	<u>Percentage Weightage:</u>		<u>50%</u>	<u>50%</u>
	<u>Minimum Pass% to qualify (aggregate):</u>			<u>60%</u>