

Model Curriculum

Hatchery In charge - Poultry

SECTOR: AGRICULTURE & ALLIED
SUB-SECTOR: AGRICULTURE ALLIED ACTIVITIES
OCCUPATION: POULTRY HATCHERY OPERATION
REF ID: AGR/Q4401, 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: **'Hatchery Incharge - Poultry'** OP No. **'AGR/O4401 NSQF Level 5'**

Date of Issuance: March 15th, 2015

Valid up to: March 31st, 2016

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



Authorised Signatory
(Agriculture Skill Council of India)

Hatchery In charge - Poultry

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Hatchery In charge - Poultry”, in the “Agriculture & Allied” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Hatchery In charge - Poultry		
Qualification Pack Name & Reference ID. ID	AGR/Q44,01, v1.0		
Version No.	1.0	Version Update Date	
Pre-requisites to Training	12 th Standard		
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Carry out incubation process: Receive eggs, storing of eggs, incubation process • Perform Grading and Packing of Chicks: Grading of chicks, identify the sex of chicks, packing of chicks • Estimate and procure required resources: Identify the inputs, estimate the inputs, identify and select the vendors, procure the inputs • Maintain hatchery equipments, building and environment: Record Keeping, observation, maintenance of hatchery equipments • Maintain health and safety : hygiene environment, worker health, worker safety at work place, hazard analysis etc 		

This course encompasses 7 out of 7 National Occupational Standards (NOS) of "Hatchery In charge - Poultry" Qualification Pack issued by "Agriculture Skill Council of India".

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	Introduction Theory Duration (hh:mm) 5:00 Practical Duration (hh:mm) 0:00 Corresponding NOS Code	<ul style="list-style-type: none"> Understand General Discipline in the class room (Do's & Don'ts) Understand the Role of a Hatchery In charge - Poultry 	Laptop, white board, projector, marker,
2	Receive and store eggs Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code AGR/N4401	<ul style="list-style-type: none"> Receive the eggs Check the damaged eggs Record the number of eggs received Understand and practice the cleaning of eggs Understand the eggs segregation process Undertake the fumigation of eggs Understand the optimum condition required for the storing of eggs Store the eggs 	Laptop, white board, projector, marker,
3	Carry out incubation process Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 15:00 Corresponding NOS Code AGR/ N4402	<ul style="list-style-type: none"> Understand and practice the method of selection of hatch able eggs Understand the method of setting of eggs in setter incubator Understand the required temperature and relative humidity in the setter Understand and practice the candling process Practice the segregation of fertile and unfertile eggs Understand the method of placing the eggs from setter to Hatcher incubators 	Laptop, white board, projector, marker,
4	Perform grading and packing of chicks Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 16:00	<ul style="list-style-type: none"> Understand the grading of chicks Practice the vaccination to chicks Practice the Feather sexing (male and female) Isolate the healthy and unhealthy chicks Understand the packing method of chicks for transportation Identify and use the packing material Pack the chicks and facilitate for the 	Laptop, white board, projector, marker,

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Corresponding NOS Code AGR/N4403	transportation	
5	Estimate and procure required resources for hatching process Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 10:00 Corresponding NOS Code AGR/N4404	<ul style="list-style-type: none"> Understand the Inputs required for the Hatching Estimate the quantity of inputs required <ul style="list-style-type: none"> Eggs Incubator Equipments Manpower Vaccines Disinfectants etc Identify and select the Vendors Place order and procure the inputs Check the quality of the inputs procured 	Laptop, white board, marker, projector,
6	Maintain hatchery equipments, building and environment Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 20:00 Corresponding NOS Code AGR/N4303	<ul style="list-style-type: none"> Perform visual inspection of hatchery tools and equipments daily Check tools and equipments <ul style="list-style-type: none"> Incubators Fogging Machine Vaccination equipment Sanitation equipment Check the water spillages, blockage or cracks Perform visual inspection of the physical infrastructure periodically Maintain the hatchery environment <ul style="list-style-type: none"> Cleaning Disinfection Sanitization Cleaning of setter trays Disposal of unhealthy chicks Optimum moisture level, temperature, light intensity, ventilation in hatchery 	Laptop, white board, marker, projector
7	Sanitation Management of the hatchery unit Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 15:00 Corresponding NOS Code	<ul style="list-style-type: none"> Understand the Bio-security measures Adopt the bio-security in the hatchery unit Understand and create the Footbath at the entrance (Chemicals/ disinfectants) Clean, disinfect, sanitize and fumigate the tools/ equipments and hatchery 	Laptop, white board, marker, projector, Vaccines, Balanced Feed Chart, Record book

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	AGR/N4304		
8	Maintain safe work environment Theory Duration (hh:mm) 10:00 Practical Duration (hh:mm) 14:00 Corresponding NOS Code AGR/Ng906	<ul style="list-style-type: none"> Analyse the hazard risk at the farm Use safety gears to avoid accidents Provide the protective clothing and equipments to the workers and train them to use Render appropriate emergency procedures Practice General safety and first aid 	Laptop, white board, marker, projector, first aid kit
	Total Duration: Theory Duration (hh:mm) 75:00 Practical Duration (hh:mm) 105:00	Unique Equipment Required: Laptop, white board, marker, projector, chemicals, disinfectants, egg trays, incubator, setters, first aid kit	

Grand Total Course Duration: **180 Hours, 0 Minutes**

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

Trainer Prerequisites for Job role :“Hatchery In Charge - Poultry” mapped to Qualification Pack: “AGR/Q4401, v1.0”

Sr. No.	Area	Details
1	Description	Trainer is responsible for educating the trainees - grade eggs, manage incubation practice, grade and pack chicks, estimates and organizes required resources, maintain equipments; building and environment for hatching chicks according to market's standards
2	Personal Attributes	Trainer should be Subject matter Expert. He/ she should have good communication, leadership, observation and practical oriented skills
3	Minimum Educational Qualifications	Diploma in Veterinary Science or relevant field (BVSc Preferable)
4a	Domain Certification	Certified for Job Role: “Hatchery In Charge - Poultry” mapped to QP: “AGR/Q4401, v1.0”. Minimum accepted score is 80%
4b	Platform Certification	Certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “SSC/Q1402”. Minimum accepted score is 70%
5	Experience	<ul style="list-style-type: none"> • MVSc with 1 Year experience, • BVSc with 3 Years of experience, • Diploma in Veterinary Science/ B.Sc. Agriculture with 5 Years of relevant experience in poultry activities

Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Hatchery In charge Poultry
Qualification Pack	AGR/Q4401, v1.0
Sector Skill Council	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 Marks	Out Of	Marks Allocation	
				Theory	Skills Practical
1. AGR/N4401 Receive and store eggs	PC1.check that eggs are received in temperature and humidity controlled vehicle	45	2	0	2
	PC2.unload the eggs without damaging them in controlled environment		1	0	1
	PC3. check that quantity of eggs received is in accordance with the purchase order		3	1	2
	PC4. clean the eggs thoroughly in controlled environment to remove any foreign matter on them		3	1	2
	PC5.segregate the eggs unsuitable for hatching like dirty, cracked, small, very large, elongated, rounded, toe punched, wrinkled and eggs with poor shell		3	1	2
	PC6.isolate non-hatchable or rejected eggs and send them for commercial sale as per company's policy		3	1	2
	PC7.take hatchable eggs to fumigation room and disinfect them with formalin and potassium permanganate solution for 15-20 mins		10	5	5
	PC8.maintain the record of number of eggs received, hatch able and non-hatchable eggs post segregation		4	2	2
	PC9. set the temperature and humidity level of the cold storage as per company's hatchery standards		3	2	1
	PC10. shift the hatch able eggs from fumigation room to cold storage without damaging them		1	0	1
	PC11. maintain the record as per company's SOP		4	2	2

	PC12.handle eggs without damaging them		1	0	1
	PC13. clean, disinfect and segregate hatchable eggs accurately		3	2	1
	PC14. ensure accurate record keeping as per company's SOP		4	3	1
	Total		45	20	25
2. AGR/N44.02 Carry out hatchery process	PC1.set the temperature and relative humidity level of the setter incubator as specified in the SOP	60	4	2	2
	PC2. take out hatchable eggs from the cold storage and place them carefully into the setetr tray		3	1	2
	PC3. ensure that small (pointed) end of eggs are downward		2	1	1
	PC4. keep the setter tray straight and place it in the setter incubator for 18 days		2	1	1
	PC5.take out the eggs from setter incubator at the end of 18th day		2	1	1
	PC6. inspect eggs to check their fertility through candling method by putting a bright light source behind setter tray and viewing the eggs		6	3	3
	PC7. segregate eggs through which light could not pass (fertile eggs) from eggs allowing the passage of light (unfertile eggs)		3	1	2
	PC8. isolate unfertile eggs and send them for commercial sale as per company's policy		3	1	2
	PC9. complete the documentation as per company's SOP		4	2	2

	PC10. set the temperature and relative humidity level of the hatcher incubator as specified in the SOP		4	2	2
	PC11. transfer fertile eggs carefully from the setter incubator to the Hatcher incubator at the end of 18th day		2	1	1
	PC12. apply formalin treatment in the Hatcher to color the chicks by placing a cloth soaked in formalin into it daily		4	2	2
	PC13. take out newly hatched chicks at the end of 21 days from the Hatcher incubator		2	0	2
	PC14. maintain the record as per company's policy		4	2	2
	PC15. place eggs in the setter tray without causing any damage to eggs		2	1	1
	PC16. set and maintain uninterrupted temperature and humidity level of setter and Hatcher incubators as per company's SOP		4	2	2
	PC17. get maximum hatch able eggs at the end of 18 days from setter incubator		3	3	0
	PC18. segregate accurately fertile eggs from unfertile eggs through candling process		3	1	2
	PC19. ensure only fertile eggs go to Hatcher incubator		3	3	0
	Total		60	30	30
3. AGR/N4403 Perform grading and packing of chicks	PC1. segregate the healthy chicks in newly hatched lot from unhealthy, undersize and weak chicks after taking them out of hatchery incubator	60	5	3	2
	PC2. vaccinate the healthy chicks as per company's SOP through injections, eye drops and nasal drops		8	4	4

PC3. differentiate males from females chicks based on their feather quality	4	2	2
PC4.isolate unhealthy, undersize and weak chicks to destroy them as per company's SOP	4	2	2
PC5.collect new packing boxes with punched holes in side wall from the manager	1	0	1
PC6. adapt the number of chicks per box to the climate conditions as per company's policy	4	4	0
PC7.pack chicks in boxes as per company's SOP	4	2	2
PC8. put the boxes on racks or trolleys while waiting for delivery	2	0	2
PC9. prior to loading the lorry, take care the truck is well cleaned and disinfected	3	2	1
PC10. dispatch chicks by keeping different age groups and breeds apart	3	1	2
PC11.load chick boxes after having sufficient clear space between two boxes and between boxes and the sides of the van	3	1	2
PC12.maintain the record as per company's policy	4	2	2
PC13.segregate healthy from unhealthy chicks from freshly hatched lot accurately	3	1	2
PC14.vaccinate the healthy chick properly with the prescribed dose	3	1	2
PC15.accurately differentiate males from	3	1	2

	female chicks				
	PC16.pack and load chicks properly without causing any damage to them		3	1	2
	PC17.ensure that chicks could be transported quickly, comfortably and under optimum sanitary conditions		3	3	0
	Total		60	30	30
4. AGR/N4404 Estimate and procure required resources for hatching process	PC1.understand hatchery unit's capacity to hatch eggs at one time	30	3	2	1
	PC2.assess the requirements of different resources like setter incubator, Hatcher incubator, weighing balance, generator, air conditioner, fan, lights, man power, veterinary clinic instruments/equipment, mops, detergent, medicines, disinfectants, vaccinations, fogging machine, hand washing solutions, cloths; sleepers; caps; masks, supply boxes, litter, wrapping tapes, motors; fan belts; humidity coils; switches and other spares of incubators etc to meet company's egg hatching targets		6	2	4
	PC3. prepare the final list of resources required along with their quantity in consultation with hatchery unit manager		4	3	1
	PC4. collect information about suppliers providing the required resources in the market		2	1	1
	PC5. select right supplier(s) for required materials in consultation with hatchery unit manager as per company's policy		2	2	0
	PC6. negotiate with supplier(s) on prices and supply time of materials to get the best deal		3	1	2
	PC7. place order and procure the material from supplier(s) in time bound manner		1	0	1

	PC8. maintain the record of procurement as per company's policy		3	1	2
	PC9. estimate all the required resources correctly		2	0	2
	PC10. identify right supplier(s) to maintain uninterrupted material supply		1	1	0
	PC11. get the quality material in time at the lowest cost		2	1	1
	PC12. ensure availability of quantity of material for achieving company's quality and quantity target of egg hatchin		1	1	0
	Total		30	15	15
5. AGR/N4405 Maintain hatchery equipments, building and environmen	PC1.perform visual inspection of hatchery tools and equipment daily	30	3	2	1
	PC2. check that all tools and equipment like fogging machines, veterinary medicine equipment, sanitation equipment etc are in working and usable condition		3	1	2
	PC3. get the tools and equipments cleaned by workers daily		2	0	2
	PC4. get the tools and equipment repaired whenever they are not in working condition		2	1	1
	PC5.perform visual inspection of the physical infrastructure periodically as per standards		3	2	1
	PC6. ensure there is no bare or damaged electrical wire		1	0	1
	PC7. ensure that screws of main plug are tight and there is no damage in electrical board		1	0	1

PC8. ensure all lights, air conditioners and other electrical appliances are working	1	0	1
PC9. ensure all water tap, connector or pipe is not leaking or blocked	1	0	1
PC10. check that there is no seepage in the walls	1	0	1
PC11. ensure that all the sewerage outlets / holes are unblocked	1	0	1
PC12. ensure that hatchery unit is free of pests and insects	1	0	1
PC13. get the hatchery unit and its surrounding area cleaned	4	3	1
PC14. ensure that setter trays and other equipments are cleaned thoroughly between different production lots	1	1	0
PC15. ensure that hatchery units are disinfected thoroughly by fumigation / spray as per company's SOP	1	1	0
PC16. ensure constant temperature inside the building, setter and hatchery units as per SOP	1	1	0
PC17. ensure that unhealthy chicks are disposed off according to company's SOP / regional regulations	1	1	0
PC18. ensure uniform temperature throughout the hatchery area	1	1	0
PC19. ensure clean and disinfected atmosphere in the hatchery unit	1	1	0
Total	30	15	15

6. AGR/N4406 Sanitation management of the hatchery unit	PC1. have separate doors for the movement of workers, materials / equipments and garbage		2	2	0
	PC2. strictly implement one-way traffic rule for movement of workers and v		2	2	0
	PC3. keep the doors of hatchery units closed all the time		2	2	0
	PC4. ensure that hatchery is divided into three zones for hygiene purpose, each				
	with a different colour for the clothes and boots of workers. This is to be done as per company's SOP		4	2	2
	PC5. ensure that while entering the hatchery the workers should take shower, change clothes, shoes and wash their hands with disinfectant solution	45	4	4	0
	PC6. document the practices as per company's policy		4	2	2
	PC7. ensure frequent cleaning and disinfection of the hatchery units.		6	3	3
	PC8. ensure cleaning and fumigation of egg receiving room, egg segregation room, cold storage, chick grading and packing rooms twice a day		6	3	3
	PC9. ensure thorough cleaning and disinfection of trays and other equipments after each hatch		6	1	5
	PC10. ensure cleaning and disinfecting the drains		6	2	4
PC11. ensure high hatchability percentage and sellable healthy chicks		3	2	1	
Total		45	25	20	

7. AGR/Ngg06 Maintain safe work environment	PC1. comply with general safety procedures of the company	30	6	6	0
	PC2. follow standard safety procedures while handling equipment, hazardous material or tool		4	3	1
	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.		2	0	2
	PC4. ensure no accidents and damages at the workplace, reporting of any breach of company safety procedure		2	2	0
	PC5. keep the workplace organized, swept, clean and hazard free		2	0	2
	PC6. attend fire drills and other safety related workshops organized at the workplace		2	0	2
	PC7. be aware of first aid, evacuation and emergency procedures		2	2	0
	PC8. be alert of any events and do not be negligent of any safety procedures to be followed		2	2	0
	PC9. avoid accidents while using hazardous chemicals, machines, sharp tools and equipments		2	0	2
	PC10. use safety materials such as protective gear, goggles, caps, shoes, etc. (as applicable with workplace)		4	0	4
	PC11. handle heavy and hazardous materials with care and using appropriate tools and handling equipment such as trolleys, ladders		2	0	2
		30	15	15	
TOTAL	300	300	150	150	
			50%	50%	
				60%	