







## **Model Curriculum**

# Village Level Milk Collection Center Incharge

**SECTOR: AGRICULTURE & ALLIED** 

SUB-SECTOR: DAIRYING

**OCCUPATION: MILK COLLECTION & HANDLING** 

**REF ID: AGR/Q4202, V1.0** 

**NSQF LEVEL: 4** 















## Certificate

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

is hereby issued by the

#### AGRICULTURE SKILL COUNCIL OF INDIA

### **MODEL CURRICULUM**

Complying to National Occupational Standards of Job Role/Qualification Pack: 'Village Level Milk Collection Center Incharge' QP No. 'AGR/Q4202 NSQF Level 4'

Date of Issuance: July 30<sup>th</sup>, 2017 Valid up to:

March 31st, 2021

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

Authorised Signatory (Agriculture Skill Council of India)









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# Village Level Milk Collection Center Incharge

### **CURRICULUM / SYLLABUS**

This program is aimed at training candidates for the job of a "<u>Village Level Milk Collection Center Incharge</u>", in the "<u>Agriculture & Allied</u>" Sector/Industry and aims at building the following key competencies amongst the learner

| Program Name                            | Village Level Milk Co  | ollection Center Incharge   |  |
|---|--|---|--|
| Qualification Pack Name & Reference ID. | AGR/Q4202, v1.0  |   |  |
| Version No.                             | 1.0  | Version Update Date   |  |
| Pre-requisites to<br>Training           | Class 8 preferably   |   |  |
| Training Outcomes                       | Prepare the repair to milk collect Measurement Perform milk can, process method of tan Maintain doc related to mile ERP Ensure Safet center: Type: | milk collection center for operation equipment and function of the of milk and quality testing at initical collection activities: Collection of unloading and transfer of milk aker loading and dispatch sumentation ,record keeping at the collection operation: Basics by Hygiene and Sanitation at miles of contamination, types of adult disported to control of contamination and actorocedure | ation: Introduction e equipments, al level n of milk in the milk n, milk testing and and payment of computer and ilk collection eration, |









This course encompasses  $\underline{4}$  out of  $\underline{4}$  National Occupational Standards (NOS) of " $\underline{\text{Village Level Milk}}$  Collection Center Incharge" Qualification Pack issued by " $\underline{\text{Agriculture Skill Council of India}}$ ".

| Sr.<br>No. | Module  | Key Learning Outcomes   | Equipment Required  |
|------------|---|---|---|
| 1          | Introduction Theory Duration (hh:mm) 05:00 Practical Duration (hh:mm) 00:00 Corresponding NOS Code Bridge Module                                      | <ul> <li>Understand General Discipline in the class room (Do's &amp; Don'ts)</li> <li>Learn and Practice Basic skills of communication</li> <li>Learn and Practice Basic reading capabilities to enable reading of signs, notices and/or cautions at site</li> <li>Get acquainted with the Dairy Industry</li> <li>Understand the process of milk procurement</li> <li>Overview of milk collection centre</li> <li>General awareness about types of synthetic milk and its effects on human health</li> <li>Understand the Role of a Village Level Milk Collection Center Incharge and the progression pathway</li> </ul>   | Laptop, white board, marker, projector  |
| 2          | Prepare the milk collection center for operations  Theory Duration (hh:mm) 15:00  Practical Duration (hh:mm) 35:00  Corresponding NOS Code AGR /N4206 | <ul> <li>Prepare milk collection equipments</li> <li>Ensure cleanliness of milk collection equipments</li> <li>Ensure all the equipments are in proper working condition</li> <li>Ensure that equipments are switched on</li> <li>Remove all stains, solid milk deposition, insects from the equipments</li> <li>Operate electronic weighing scale</li> <li>Operate analyser for initial quality testing</li> <li>Ensure proper maintenance of the center</li> <li>Familiarize with chemicals and reagents</li> <li>Maintain inventory list</li> <li>Label chemicals and reagents</li> <li>Get acquainted with different milk testing techniques</li> <li>Maintain record of procured milk</li> <li>Get acquainted with the legal regulation in terms of health and hygiene to be maintained at work place</li> </ul> | Laptop, white board, marker, projector, checklist format, AMCU (Automatic Milk Collection Unit), Adulteration testing kit |
| 3          | Carry out milk collection activities  Theory Duration   | <ul> <li>Collect milk supplied by farmers in buckets and cans</li> <li>Follow SOP for milk collection, lid opening and sanitization</li> </ul>  | Laptop, white board,<br>marker, projector,<br>checklist format,<br>AMCU (Automatic  |









| Sr.<br>No. | Module   | Key Learning Outcomes  | Equipment Required  |
|------------|--|--|---|
|            | (hh:mm) 15:00  Practical Duration (hh:mm) 45:00  Corresponding NOS Code AGR/N4207  | <ul> <li>Ensure no wastage of milk while transferring</li> <li>Record total quantity of milk procured</li> <li>Provide acknowledgment slip to the farmers for milk supplied</li> <li>Familiarize with Organoleptic test, Clot on boiling test, Adulteration test</li> <li>Ensure milk vehicle is cleaned</li> <li>Understand the procedure of transferring milk to the vehicle</li> <li>Familiarize with weighing and sampling techniques</li> <li>Practise basic mathematics</li> <li>Get acquainted with the methods to calibrate equipments</li> </ul>  | Milk Collection Unit), Adulteration testing kit, dead weights, calibrated measuring jars, reagents, electronic weighing scale, analyser   |
| 4          | Complete documentation and record keeping and payments related to milk collection operation  Theory Duration (hh:mm) 15:00  Practical Duration (hh:mm) 35:00  Corresponding NOS Code AGR/N4208 | <ul> <li>Maintain records pertaining to milk collection such as Fat &amp; SNF reading sample wise register, MCC stationery, MCC stock dispatch register</li> <li>Record milk temperature, collection time and date pickup</li> <li>Document and maintain records like weight of milk, farmers' information</li> <li>Maintain Records of storage</li> <li>Understand basics of computer to load details</li> <li>Verify details and records</li> <li>Document and maintain records of storage parameters such as producers' code, average SNF, total milk in kgs</li> <li>Understands the procedure of payments to the farmers</li> <li>Basic computer knowledge and e-mailing skills</li> <li>Records details regarding preventive measures, repair and maintenance</li> </ul> | Laptop, white board, marker, Projector  |
| 5          | Ensure safety, hygiene and sanitation at milk collection center  Theory Duration (hh:mm) 15:00  Practical Duration (hh:mm) 20:00   | <ul> <li>Follow safety and hygiene procedure as per organization standards</li> <li>Perform safety and sanitation related functions for collection of milk and storage</li> <li>Ensure cleanliness of milk hauling vehicles and equipments</li> <li>Use gloves, hairnets, appropriate shoes to maintain personal hygiene</li> <li>Follow appropriate safety procedures</li> <li>Follow housekeeping practices</li> </ul>   | Laptop, white board, marker, projector, Sanitizer, Personal protective equipment like: safety gloves, Safety boots, hairnet First Aid Kit: Bandages, Adhesive bandages, Betadine Solution / ointment, Pain relief |









| Sr.<br>No. | Module   | Key Learning Outcomes  | Equipment Required  |
|------------|--|--|---|
|            | Corresponding NOS<br>Code<br>AGR/N4209   | <ul> <li>Ensure personal hygiene</li> <li>Ensure and maintain cleanliness at milk collection center</li> <li>Attend training on hazard management</li> <li>Get acquainted with different types of sanitizers and procedure to use them</li> <li>Get acquainted with physical, chemical and biological methods of prevention</li> <li>Follow safe food practices by labelling milk and finished products</li> </ul> | spray / ointment, Antiseptic liquid; Antidote, Phone directory, Search lights, fire extinguisher, |
|            | Total Duration: Theory Duration (hh:mm) 65:00  Practical Duration (hh:mm) 135:00 | Unique Equipment Required: Laptop, white board, marker, project checklist format, electronic weighing scale reagents, pH meter, lactometers, sterilis glassware, dead weights, calibrated me electronic weighing scale, analyser, PPE kit  | e, analyser, chemicals, zers, flasks, sanitizers, easuring jars, reagents,                        |

Grand Total Course Duration: 200 Hours, 0 Minutes

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









## Trainer Prerequisites for Job role: "Village Level Milk Collection Center Incharge" mapped to Qualification Pack: "AGR/Q4202, v1.0"

| Sr.<br>No. | Area                                     | Details   |  |  |  |
|------------|--|---|--|--|--|
| 1          | Description                              | Trainer is responsible for educating the trainees – Ensuring practical training as well as theoretical sessions for village level milk collection   |  |  |  |
| 2          | Personal<br>Attributes                   | Trainer should be Subject Matter Expert. He/ she should have good communication, leadership, observation and practical oriented skills.   |  |  |  |
| 3          | Minimum<br>Educational<br>Qualifications | Diploma in Veterinary / Animal Husbandry / Dairying   |  |  |  |
| 4a         | Domain<br>Certification                  | Certified for Job Role: "Village Level Milk Collection Center Inchar mapped to QP: "AGR/Q4202, v1.0". Minimum accepted score is 80%.  |  |  |  |
| 4b         | Platform<br>Certification                | Certified for the Job Role: "Trainer", mapped to the Qualification Pack: "MEP/Q0102". Minimum accepted % as per respective SSC guidelines is 80%.   |  |  |  |
| 5          | Experience                               | <ul> <li>B. Tech (Dairy) with 1 year of relevant experience</li> <li>B. V. Sc. with 2 years of relevant experience</li> <li>B. SC Agriculture with 2 years of relevant experience</li> <li>Any Graduate with 3 years of relevant experience</li> <li>Diploma in veterinary /Animal Husbandry / Dairying with 3 years of relevant work experience</li> <li>VLDA (Veterinary livestock development assistant) with 2 years of relevant work experience</li> </ul> |  |  |  |









#### **Annexure: Assessment Criteria**

| Assessment Criteria  |   |
|----------------------|---|
| Job Role             | Village Level Milk Collection Center Incharge |
| Qualification Pack   | AGR/Q4202, v1.0                               |
| 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 70% in aggregate.
- 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









|  |  | Marks Allocation |           |        |                         |  |
|--|--|------------------|-----------|--------|-------------------------|--|
| Assessable outcomes                      | Assessment criteria for outcomes   | Total<br>Marks   | Out<br>Of | Theory | Skills<br>Practic<br>al |  |
| 1. AGR/N4206 Prepare the milk collection | PC1. check readiness and prepare for milk collection, at the centre  |                  | 14        | 4      | 10                      |  |
| center for operations                    | PC2. ensure cleanliness of all milk collection equipments as per acceptable standards  - ensure equipments are free of fat stains, dust free and odour less  - follow the cleaning SOP if there is any equipment/accessory which has visible fat stains or odour  - do not keep milk samplers or any other articles on the floor  - put the samplers and other articles in their designated place/shelves  - ensure use of clean sample bottles for collecting milk samples  - keep sample bottles upside down without capping in the cleaned simple tray  - use clean, odour free and |                  | 15        | 5      | 10                      |  |
|  | undamaged nylon sieve/nylon cloth for milk filteration  PC3. ensure all equipments used for milk collection are switched ON and are in proper working condition  clean the equipments to remove deposition of milk solids, dust  | 100              | 14        | 4      | 10                      |  |
|  | particles or insects  PC4. ensure that all registers and formats are available at their designated places  |                  | 14        | 4      | 10                      |  |
|  | PC5. operate electronic weigh scale  ensure that proper power supply and earthing is available to the electronic weighing scale  switch on the electronic weigh scale and allow it to warm up for atleast 15 minutes, before starting milk collection  check the accuracy of electronic weigh scale with known weights and record correction factor in the log book in case of variation   |                  | 14        | 4      | 10                      |  |
|  | PC6. operate analyser for initial quality testing  · keep the analyser and vibrator connected to the battery  · ensure that the computer, printer and UPS function properly  · switch on the analyser and allow it to warm-up for at least 20 minutes  |                  | 15        | 5      | 10                      |  |









|  | ensure that the analyser is calibrated on a timely basis     record the variation if any and note the action performed to correct the calibration in the log book  PC7. ensure proper maintenance of the centre     ensure that stationary and other necessary articles such as chemicals, reagents and cleaning agents are in place     maintain inventory list for each item keeping 2 weeks as the lead time for replenishment     ensure running tap water is available during milk collection hours     ensure that all the |     | 14  | 4  | 10 |
|--|--|-----|-----|----|----|
|  | chemicals/reagents stored have a<br>label on their container showing<br>their date of standardization and<br>expiry  |     |     |    |    |
|  |  |     | 100 | 30 | 70 |
| 2. AGR/Q4207 Carry out milk collection | PC1. collect milk supplied by farmers in buckets and cans  |     | 6   | 2  | 4  |
| activities                             | PC2. follow standard operating procedure for milk can opening  |     | 6   | 2  | 4  |
|  | PC3. carry out organoleptic tests and identify doubtful cans   |     | 6   | 1  | 5  |
|  | PC4. lift the cans using the grip<br>handles provided on the side  |     | 5   | 1  | 4  |
|  | PC5. ensure that the milk does not spill during the transfer and is filtered through a clean nylon cloth   |     | 6   | 2  | 4  |
|  | PC6. record the total quantity of the milk once all of it has been poured  |     | 6   | 2  | 4  |
|  | PC7. ensure that the cans/buckets are inverted and placed on SS drip saver for recovery of the milk drops that remain in the can   | 100 | 6   | 2  | 4  |
|  | PC8. follow SOP for lid cleaning and sanitization and ensure that the can is washed thoroughly (activity is done immediately after can opening)  |     | 6   | 2  | 4  |
|  | PC9. print acknowledgement slip and provide to farmer for quanity of milk supplied   |     | 6   | 2  | 4  |
|  | PC10. record the electronic weighed data and fat/SNF test data taken from analyser   |     | 6   | 2  | 4  |
|  | PC11. ensure that the milk samples are tested and the results (%fat, %SNF) are written on milk procurement sheet and handed over to the transporter  |     | 6   | 2  | 4  |









|  | PC12. ensure that the identified milk cans which were suspected at the time of organoleptic testing are tested for COB test (clot on boiling) and adulteration tests  |     | 6   | 2  | 4  |
|--|---|-----|-----|----|----|
|  | PC13. ensure that the identified adulterated milk can is emptied at the site and record is maintained   |     | 6   | 1  | 5  |
|  | PC14. ensure that the DG set is switched ON in case of power failure or low voltage supply  |     | 6   | 2  | 4  |
|  | PC15. check whether the road milk vehicle (primary transporter) has been cleaned properly   |     | 6   | 2  | 4  |
|  | PC16. transfer the milk to the  |     | 5   | 1  | 4  |
|  | transportation tanker  PC17. ensure that the tanker driver acknowledges the quantity of milk loaded in kgs and the quality results (Fat and SNF), temperature and acidity   |     | 6   | 2  | 4  |
|  |   | 1   | 100 | 30 | 70 |
| 3. AGR/Q4208 Complete documentation, record keeping and payments related to milk collection operations | PC1. ensure that the below mentioned records are maintained on a continuous basis:  individual milk producer wise can collection and weightment register  fat and SNF reading sample wise register  MCC stationery, consumables and testing equipment stock register  MCC stock dispatch register |     | 6   | 4  | 2  |
|  | PC2. record milk temperature, collection time, date of pick-up  |     | 6   | 3  | 3  |
|  | PC3. document and maintain records of all incoming milk: weight of milk, farmer details, catchment area /   | 100 | 6   | 4  | 2  |
|  | PC4. document and maintain records of all outgoing milk from the centre such as type and varieties of milk, weight of milk, actual storage period, losses from incoming to outgoing period  |     | 6   | 4  | 2  |
|  | PC5. maintain record of observations (ifany) related to storage   |     | 6   | 4  | 2  |
|  | PC6. load the details in computer system for future reference   |     | 5   | 3  | 2  |
|  | PC7. verify the documents and track details in cases of concerns  |     | 6   | 3  | 3  |
|  | PC8. ensure that once all the milk has been tested and weighed, a report is generated which includes  |     | 6   | 4  | 2  |









|   |   |     | 1   |    |    |
|---|---|-----|-----|----|----|
|   | individual producer code, name,<br>number of cans or buckets, total<br>milk in Kgs, average fat, average<br>SNF, quantity of rejected milk                          |     |     |    |    |
|   | PC9. send report to the head office via   |     | 5   | 3  | 2  |
|   | email PC10. document and maintain records   |     |     |    |    |
|   | of parameters such as temperature, quality of the milk before loading in the hauling/transportation vehicle   |     | 6   | 3  | 3  |
|   | PC11. maintain record of observations or deviations (if any) related to storage parameters  |     | 6   | 3  | 3  |
|   | PC12. load the details in computer system for future reference  |     | 6   | 4  | 2  |
|   | PC13. verify the documents and track details in cases of concerns   |     | 6   | 3  | 3  |
|   | PC14. ensure that the amount payable to the farmer is calculated based on fat content, water level, weight and SNF levels   |     | 6   | 4  | 2  |
|   | PC15. ensure that the amount is written on a proper receipt and handed over to the farmer/supplier to collect the money after a certain period of time              |     | 6   | 4  | 2  |
|   | PC16. ensure that the money is paid to farmers/suppliers who are due on that particular day   |     | 6   | 3  | 3  |
|   | PC17. maintain a grievance register to record grievances from suppliers/farmers   |     | 6   | 4  | 2  |
|   |   |     | 100 | 60 | 40 |
| 4. AGR/Q4209 Safety, hygiene and sanitation at milk collection center | PC1. comply with safety and hygiene procedures followed in the organisation   |     | 6   | 2  | 4  |
|   | PC2. ensure personal hygiene by using of gloves, hairnets, masks, ear plugs, goggles, shoes, etc  |     | 5   | 1  | 4  |
|   | PC3. clean, maintain and monitor milk hauling vehicles and equipments periodically, using it only for the specified purpose   |     | 5   | 1  | 4  |
|   | PC4. use safety equipment such as fire extinguisher, first aid kit and eyewash station when required  | 100 | 6   | 2  | 4  |
|   | PC5. follow housekeeping practices by having designated area for materials/tools  |     | 6   | 2  | 4  |
|   | PC6. attend training on hazard management to understand types of hazards such as physical, chemical and biological hazards and measures to control and prevent them |     | 6   | 1  | 5  |









| GRA | ND TOTAL   | 400 | 150 | 250 |
|-----|--|-----|-----|-----|
|     |  | 100 | 30  | 70  |
| PCI | <ol> <li>ensure that walls and ceilings are<br/>free of cobwebs and loose chips of<br/>paint or any building material</li> </ol>     | 6   | 2   | 4   |
| PC1 | not have any missing or loose tiles (if tiled flooring is used)  | 0   | 1   | 5   |
| PC1 |  | 6   | 1   | 5   |
| PC1 | 6. ensure that no loose wires are hanging in the milk collection area  | 5   | 2   | 3   |
| PC1 | is not used for washing hands  | 5   | 2   | 3   |
| PC1 | accumulation of waste and water around the centre  | 5   | 2   | 3   |
| PC1 | protection from birds, rodents, etc.   | 6   | 2   | 4   |
| PC1 | away from the area   | 5   | 1   | 4   |
| PC1 | tobacco chewing', and 'no spitting' signs or posters are displayed inside  | 6   | 2   | 4   |
| PC1 | there are any open wounds or sores especially on the hands and arms  | 5   | 2   | 3   |
| PC9 | ensure display of hand washing signs and/or posters at the appropriate points  | 6   | 2   | 4   |
| PC8 | conduct workplace checklist audits<br>before and after work to ensure<br>safety and hygiene  | 5   | 1   | 4   |
| PC7 | identify, document and report<br>problems such as rodents and<br>pests; seek professional expert<br>advise on resolving these issues | 6   | 2   | 4   |