

Syllabus For DAIRY FARMING(RPL)

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| Course Name | DAIRY FARMING(RPL) |
| Sector | AGRICULTURE |
| Course Code | AGR/2021/DAFA/109 |
| Level | 4 (RPL) |
| Occupation | DAIRY FARMING |
| Course Duration | Total Duration 35 Hrs (T- 7.5 , P-27.5) |
| Trainees' Entry Qualification | Class VIII Pass with 5 years experience in the relevant field |
| Trainers Qualification | Diploma in Veterinary Science/Veterinary Pharmacy/Animal Husbandry or relevant field (B.V.Sc. & A.H. Preferable) with 01 years of relevant work experience. OR B. Sc. Animal Science with 2 years of relevant work experience. OR Science Graduate with 5 yrs of relevant work experience |

SYLLABUS:

| S.N. | Topics | Course Distribution | |
|---|---|---------------------|------------|
| | | Theory | Practical |
| 1. Basic Concept about Dairy Farm Management: | | | |
| | Brief history about Dairy industry in India as well as in W.B. <input type="checkbox"/> Different indigenous & Exotic breeds of Cattle & Buffalo <input type="checkbox"/> Different body parts of Dairy animals (Pr) <input type="checkbox"/> Selection of cattle, Maintenance of registers (Pr) <input type="checkbox"/> Concept of commercial and low cost dairy farming. | 1.0 | 0.0 |
| 2. Scientific Housing & Management in Dairy farming: | | | |
| | Concept of Dairy housing and its prerequisites, different types of accommodation- Head to Head, Tail to tail system, Intensive and extensive system of dairy farming, tools/equipment for dairy housing Different methods of waste handling/ management Plan and follow the routine cleaning of animal shed personal protective equipment for livestock in accommodation Suitable environment condition for accommodation of livestock Proper handling to minimize stress and follow the safety procedures Ensure cleanliness and follow proper method of waste disposal | 1.0 | 1.0 |
| 3. Dairy Nutrition & Feeding Management Practices: | | | |
| | Concept of protein, fat, carbohydrate, mineral, vitamin & water <ul style="list-style-type: none"> • Concept of roughage and concentrate • Green fodder cultivation, azolla production, hydroponic production, etc.(Pr) : best use of fodder plot • Hay and silage preparation. (Pr); • Enrichment of straw (Pr) • Requirement of different types of feed in different condition (calf/ milking/dry/pregnant) • Production of concentrate mixture at home/ formulation (Pr) | 1.0 | 2.0 |

| S.N. | Topics | Course Distribution | |
|--|---|---------------------|------------|
| | <ul style="list-style-type: none"> • Concept of balanced ration (Pr) • Formulation of dairy ration in context of increasing fat content in milk (Pr) • Concept of gut-health and hepato-biliary system in context of best utilization of feed. | | |
| 4. Breeding and reproduction in Dairy farming | | | |
| | <p>Concept of breed (different milch breeds of cattle & buffalo) (Pr)</p> <ul style="list-style-type: none"> • Concept of AI, advantage & factors related to success of AI (Pr) • Concept of estrus cycle, silent heat, irregular heat, absence of heat, etc. • Concept of infertility and management, • Nutrition and diseases affecting fertility of animals. • Synchronization of heat – concept, • Retention of placenta & management • Maintenance of breeding register (Pr) | 1.5 | 2.0 |
| 5. Health and disease management in Dairy farming | | | |
| | <p>Selection of good milch animals, • Important preventive and systemic diseases and their management,</p> <ul style="list-style-type: none"> • Deworming and vaccination schedule (Pr), • Maintenance of health register (temp., muzzle condition, rumination, ecto-parasite, urination, defecation, etc.) (Pr) • Udder health with reference to mastitis management (Pr). • Management of bloat (Pr). • Scientific housing, sanitation, ventilation etc. • Identification through tagging (Pr); • Indigenous technical knowledge (ITK) in Dairy health management (Pr) | 1.0 | 2.5 |
| 6 Milk Production and marketing linkage in dairying | | | |
| | <p>Difference between cow and buffalo milk and its trade implication;</p> <ul style="list-style-type: none"> • Concept of clean / hygienic milk production, • Concept of organic milk and its advantages • Adulteration of milk and its disadvantages, • Different milk products • Market survey and identification of local demand and availability (Pr) • Advantages of dairy cooperative and FPO (Pr) • Maintenance of daily production register (Pr) | 1.0 | 3.0 |
| 7. Concept of cash flow, Project report/Proposal and different schemes to avail loan & their application procedure in Dairy farming | | | |
| | <p>Investment (capital and working capital)</p> <ul style="list-style-type: none"> • Income, Repayment of bank loan with interest • Concept of gross profit and net-profit, • Insurance, Concept of depreciation | 0.0 | 6.0 |

| S.N. | Topics | Course Distribution | |
|---|---|---------------------|----------------|
| | <ul style="list-style-type: none"> • Maintenance of stock register • Maintenance of cash-book Concept of term loan and cash credit loan <ul style="list-style-type: none"> • KCC-AH, SHG / FPO bank linkage • Mudra-Yojna and similar schemes of the Govt. • General procedure to avail term loans | | |
| 8. Farm visit, Group work/case study in group for domestic poultry farming, Doubt clearing session with setting of goal in Poultry farming | | | |
| | (May be Govt./ KVK/University/ private/ NGO managed/ any other farms suitable for demonstration – as decided by the DD, ARD&PO concerned); <ul style="list-style-type: none"> • Breed of animals, • Restraining of animals, • Dairy shed; • Application of medicine (different routes) • Observation of animals (temp., rumination, Ecto-parasite, urination, defecation, onset of heat etc.); • Cleaning of animals • Demonstration of fodder plot, azolla pit, hydroponic units, enrichment of straw, preparation of concentrate in home, hay, silage, etc. • AI technique, Interaction with successful farmers/ SHGs/FPO etc. • Allocation of time for healthcare management, nutrition, breeding, record keeping, institutional linkages (with BLDO office/ AHC/ Bank/KVK etc.), marketing and miscellaneous. The trainees will be divided into 6 groups and each group is to be provided one broad topic covered during first three days in different sessions. • Trainees are required to brain-storm on the topic for 1 hour, and then make presentation. All members have to participate. • Based on their presentations, their learning gaps may be identified and addressed accordingly. • Each of the trainees is required to come up with their activity timeline (setting goal) as far their enterprise is concerned. All trainees would be encouraged to come up with their doubts whatsoever. All doubts are required to be cleared in this session. • Based on their activity timeline (goal), long term follow up plan of the ARD Dept. will be shared with the trainees. | 0.0 | 11.0 |
| 9. Self-Employment Skilling & Employability Skills | | | |
| | Concept of self-Employment skilling under Utkarsha Bangla | 1.0 | 0.0 |
| | Total: Theory-7.50hr+Pract. 27.5hrs=Total 35.0 hr | 7.5hrs | 27.5hrs |

| S. No | Learning outcomes | Estimated size (learning hours) |
|----------|---|---------------------------------|
| 1 | Basic Concept about Dairy Farm Management | 1.0+0.0 |

| S. No | Learning outcomes | Estimated size (learning hours) |
|---|---|---------------------------------|
| 2 | Scientific Housing & Management in Dairy farming | 1.0+1.0 |
| 3 | Dairy Feeding & Nutrition Management Practices | 1.0+2.0 |
| 4 | Breeding and reproduction in Dairy farming | 1.5+2.0 |
| 5 | Health and disease management in Dairy farming | 1.0+2.5 |
| 6 | Milk Production and marketing linkage in dairying | 1.0+3.0 |
| 7 | Concept of cash flow, Project report/Proposal and different schemes to avail loan & their application procedure in Dairy farming | 0.0+6.0 |
| 8. | Farm visit, Group work/case study in group for domestic poultry farming, Doubt clearing session with setting of goal in Poultry farming | 0.0+11.0 |
| 9. | Self-Employment skilling under Utkarsha Bangla | 1.0+0.0 |
| Total: Theory-7.50hr+Pract. 27.5hrs=Total 35 hrs | | 7.5hrs+27.5hrs |

LIST OF TOOLS & EQUIPMENTS

| LIST OF GENERAL TOOLS & EQUIPMENTS: (For Batch of 30 Candidates) | | | |
|---|-----------------------------------|---------------------------|------------|
| S No. | Name of the Tool & Equipment | Specification | Quantity |
| 1. | Laptop & LCD Projector, | Standard & available size | 01 each |
| 2. | White board, Marker, | 5'X4' | 01-02 each |
| 3. | Record book, Balanced Feed Chart, | Standard & available size | 02-03 each |
| 4. | Public address system | -Do- | 01 No |

N.B.: To conduct Practical for trainees on related trade/discipline, a demonstration farm with minimum 2-3 Nos. dairy animals are prerequisite for hands-on skill development in training.

| S No. | Name of the Farm Equipment's | Specification | Quantity |
|-------|--|---------------------------|---------------|
| 1. | Dairy shed@ 50-60 Sqft / animal | Space:60X 02Nos. | 120-150 Sqft. |
| 2. | Dairy Manger, Crate & Waterer | Standard & available size | 01No /animal |
| 3. | Bradizzo Castrator, Drencher | -Do- | 01-02 Nos. |
| 4. | Stethoscope & Thermometer | -Do- | 01-02 Nos. |
| 5. | Chemicals, disinfectants, lime etc. | -Do- | 02-03 each |
| 6. | Vaccinator, Vaccines & First aid kit. | -Do- | 02-03 each |
| 7. | Measuring tape, Wt. Balance, Fan, etc. | -Do- | 01-02 each |

Alternately,

To conduct Practical for trainees on related trade/discipline, attachment of the training Centre with Animal Health Centre OR Farm are prerequisite for hands-on skill

development in training with availability of following farm equipment:

Cryo-can – 1 no.

AI gun, sheath – 1 each

Liq. Nitrogen – Min 3-7 ltrs

Injection needle & syringe of different dimensions – 1 set each,

Casting rope - 1,

Travis - 1,

Vaccine preservation method – 1 unit,