Syllabus For Fish Seed Grower (RPL)

Course Name	**Fish Seed Grower (RPL)**
Sector	**AGRICULTURE**
Course Code	**AGR/2021/FISG/061**
Level	**4 (RPL)**
Occupation	**Fish Seed Grower**
Course Duration	**Total Duration 70 Hrs (T-29 , P-41)**
Trainees' Entry Qualification	**Class VIII Pass with 5 years experience in the relevant field**
Trainers Qualification	**Bachelor degree in Fishery science/ Zoology/ Chemistry or equivalent from a recognized University/ Board/ Institute with minimum 2 Years' experience in Fisheries field.**

Structure of Course:

Module No.	Module name	Theory (Hrs)	Practical (Hrs)	Total (Hrs)
1	**Introduction**	5	5	10
2	**Carry out seed production**	20	30	50
3	**Ensure Personnel Management**	2	3	5
4	**Ensure safety hygiene and sanitation practices For culture operations**	2	3	5
	TOTAL	29	41	70

SYLLABUS:

Sl no	Revise Module (Proposed)	Key learning Outcomes	Equipment required
1	**Introduction** Theory Duration:	• Study the scope and importance of quality seed in increasing the fish production of the country and ensuring economic stability for the growers • Understand the role of a Fish Seed Grower and the progression pathways	Laptop, white board, marker, projector

Sl no	Revise Module (Proposed)	Key learning Outcomes	Equipment required
	5 hrs Practical Duration : 5 hrs	• Identify the commercially important fish species for seed rearing • Familiarize with the Government schemes and policies of various related to fish seed growing	
2	**Carry out seed production** Theory Duration: 20 hrs Practical Duration: 30 hrs	• Ensure removal of insects, aquatic weeds, unwanted weed fishes and predators. • Ensure proper liming and fertilization • Ensure pond preparation as per requirement of the respective stages of seed to be grown, i.e., spawn to fry, frytofingerling (post larvae to juvenile in freshwater prawn) or fingerling to stunted juveniles **• Perform Brood Stock Management** • Select quality broodstock • Ensure proper stocking and is being feed regularly with quality feed. • Ensure maintenance of water level, fertilization schedules, periodic sampling for ascertaining gonadal development etc. **Undertake fry production** • Prepare pond for stocking of spawn/larvae for fry production • Ensure spawn is stocked in correct density and supplementary feed is provided, **• Undertake fingerling production** • Prepare seed rearing pond for fingerling production • Ensure stocking of fry in optimum density in cool hours and feeding is done as per the recommended schedule. • Ensure recommended water level during culture period and provide periodic liming and fertilizers to maintain water quality. Ensure harvesting after 3 months of culture by small mesh drag net in cool hours • Acclimatize before packing and transport for sale/ safe delivery • Pack and Transport to long distances in oxygen filled polythene bags for grow out	Laptop, white board, marker, projector, Audio-visual aids, lime, chemical fertilizers rice bran, ground nut oil cake, diesel liquid soap, oxygen cylinder polythene bags, thick thread, conditioning hapa, breeding hapa, hatching hapa, bamboos, canvas bags, hand net, Synthetic hormones like, WOVA-FH, ovatide, pituitary gland, homonizen, balance for weighing in milligrams beaker, distilled Water, Syringes, needles balance for weighing big fishes, Sponge small hatchery drag net, fry net, watch glass.

Sl no	Revise Module (Proposed)	Key learning Outcomes	Equipment required
		culture. • **Undertake hatchery operation** • Ensure hatchery components like spawning pool, hatching pools, over head water tank is thoroughly cleaned, duck mouths are open, check valves are working and water pump is working. • Ensure mature brooders are brought to the hatchery in water filled canvas bags • Ensure males and females are kept separately in hapas in water filled spawning pools. • Ensure synthetic hormones/ pituitary extract is injected in recommended doses at periodic intervals • Ensure injected brood fish is released in spawning pool, shower is running and water is coming to the pool from inlet and spawning pool is covered with net to prevent the escape of brood fish during spawning. • Ensure spawning and fertilization of fishes • Ensure collection of eggs after complete spawning • Ensure fertilized eggs are transferred to hatching pools at the required density • Ensure collection of spawn its transfer to nursery pond for fry production. • Ensure thorough cleaning of hatchery after every cycle.	
3	**Ensure Personnel Management** Theory Duration: 2 hrs. Practical Duration : 3 hrs.	• Allocate the work and maintain records of the scheduled activities • Ensure required inputs have been procured and transported to the site and assessment has been done for requirement of labour each day • Ensure availability of skilled persons for hatchery operation activities like identification of matured male and female, their transport to hatchery, injecting hormones at right dose etc • Ensure necessary funds are available for day to day expenses. • Assess the capabilities of the workers and ensure periodic training on	Laptop, white board, marker, projector, register, scale

Sl no	Revise Module (Proposed)	Key learning Outcomes	Equipment required
		different aspects • Maintain register for attendance and daily wages, availability of diesel for operation of water pump and generator if electricity is not there, procurement of diesel etc.	
4	**Ensure safety hygiene and sanitation practices For culture operations** Theory Duration 2 hrs Practical Duration 3 hrs	• Maintain health & hygiene of seed during transportation and at various stages of growth & maturity • Ensure safety measures and upkeep of water bodies used in fish culture • Monitor the quality of the water regularly • Ensure thorough drying and cleaning of nets, hapas, hand nets, canvas bags, spawning & hatching pools • Take necessary precautions to avoid disease outbreaks • Ensure standard methods are followed in case of any calamity.	First aid box, Hand nets and cast nets, Dip nets, Hand gloves, boots, Head gear, Apron, Fresh towel, Cotton.
	Total duration of course : 70 hrs Theory : 29 hrs, Practical : 41hrs.		