Three months certificate course/ curriculum on IFS for farmers

Following training courses have been developed by NAHEP-CAAST-IFS, BAU Ranchi for training of farmers

1. AQUACULTURE

COMPONENTS	UNIT	TOPIC (SESSION)
Theory component	1	Introduction to fish culture- species and its rearing
	2	Types of ponds and its management
		Integrated fish farming
	3	Water quality- use of lime, cow manure, etc.
	4	Feed of fish and its method of feeding
	5	Diseases, symptoms and treatment of fishes
	6	Harvesting techniques and transportation process of fish
		Handling techniques
Practical component	7	Plankton net and *sacchi disk*, pH level of pond
	8	Visit to an institutional farm pond, cage culture

2. POULTRY FARMING

COMPONENTS	UNIT	TOPIC (SESSION)
Theory component	1	Introduction to different strains of poultry (specific strains developed for rural poultry production)
	2	Housing management – backyard and semi-intensive.
	3	Feeding management and stress management.
	4	Biodiversity and principles of disease prevention management.
Practical component	5	Visit to institutional poultry farm.
	6	General principles of poultry medication and disinfection.
	7	Selection and care of hatching eggs and hatchery hygiene.
	8	Poultry waste management, pollution and environmental issues.

3. ANIMAL HUSBANDRY

COMPONENTS	UNIT	TOPIC (SESSION)
Theory component	1	Common farm practices incl. disinfection, isolation, quarantine and disposal of carcass.
	2	Method of identification- ear tagging, ear tattooing, number tagging, branding.
	3	Identification and care of pregnant animals, care of neonatal and young stock.
	4	General management and feeding practices during different stages of growth, development and production.

Practical component	5	General introduction of the institutional animal farm
	6	Identification of common tools used on animal farm
	7	Human handling, restraining of cattle and spotting sick animals.
	8	Visit to fodder farm.

4. MUSHROOM CULTIVATION

COMPONENTS	UNIT	TOPIC (SESSION)
Theory component	1	Introduction to mushrooms (edible, poisonous mushroom and nutritional value)
	2	Culture preparation and preservation techniques (polythene bag method, bed method)
	3	Spawn production technology
	4	Farm –design and infrastructure
	5	Pest and disease management
	6	Post harvest handling/ value addition
Practical component	7	Farm visit
	8	Substrate preparation of (White button mushroom, Oyster mushroom and paddy straw)
	9	Spawn production
	10	Post harvest handling for value addition

5. BEE KEEPING

COMPONENTS	UNIT	TOPIC (SESSION)
Theory component	1	Introduction to bee-keeping,
	2	Queen rearing and its life stages,
	3	Selective bee breeding colonies
	4	Care against pesticide in colonies (seasonal management, checking food store)
	5	Bee keeping equipments (wooden wear, protective gears)
	6	Seasonally sugar syrup and pollen method – natural and artificial water sources.
	7	Bee diseases (wax moth, beetles, mites etc.)
Practical components	8	Field visit to bee keeping farm.
	9	Method of honey extraction and its processing.

6. ORGANIC FARMING

COMPONENTS	UNIT	TOPIC (SESSION)
Theory component	1	Introduction to Organic Farming
		Principle of Organic Farming.
		Organic Farming v/s Chemical Farming
		Basic Concept of Organic Farming
	2	On Farm Input production (JaivikChabutra, Fortified Compost)
	3	Minerals /elements essential for Plants.
		Testing the quality of soil and its management
	4	Proper handling of farm waste and household waste.
		Harvesting and storage of Organic products
	5	Marketing of Organic Products.
		Economic viability of Organic Farming
	6	Individual Certification and Group Certification processes. Package of practices on Organic Farming.
Practical component	7	Training on Cluster Making.
	8	Visit to organic farmer's fields & Vermin-compost unit. Explanation and practical training on: a. **INM** (Integrated Nutrition Management). b. **ETL** (Economic Threshold Level).