POULTRY DEMONSTRATION UNIT

A Poultry unit has been established in RASS Krishi Vigyan Kendra, Tirupati to demonstrate production technology of different poultry to Farmers, Farm Women, and Rural youth as most of the rural people depend on backyard poultry rearing for their livelihood.

Poultry unit is well maintained with an incubator, brooding section and free range rearing area. Three breeds are being maintained, they are Vanaraja, Kadaknath and Aseel.

The breeds characteristics are as follows

VANARAJA

- This breed is developed by DPR Hyderabad.
- It is dual purpose breed both for egg and meat purpose
- It has well developed immunity as of native breeds and can protect itself from its predators.
- Average body weight at 5 months of age is about 2 to 2.5 kgs.
- Average egg production per year ranges from 190-200 eggs per year.
- Egg is brown in colour as of native breeds.
- Best suitable for backyard rearing.

KADAKNATH

- It is Indian native breed.
- It is meant for black meat.
- Breed appears complete black in colour and its meat has many medicinal properties, best used for nerve disorders, asthma patients and circulatory disorders.
- Meat contains higher protein percentage than other breeds
- Average body weight at 5 months of age is about 1 to 1.5 kgs.
- Average egg production per year ranges from 100-110 eggs per year.
- Egg is brown in colour as of native breeds.
- Best suitable for backyard rearing.

ASEEL

- Andhra Pradesh native breed popularly known as fighting bird.
- This breed is characterized with long neck and legs
- Average body weight at 5 months of age is about 1to 1.5 kgs.
- Average egg production per year ranges from 70-90 eggs per year.
- Its egg is brown in colour as of native breeds. Best suitable for backyard rearing.

Incubation

100 eggs capacity incubator is being maintained for incubation of eggs.

Brooding

Brooding section is being maintained for brooding of chicks for 4-5 weeks during which vaccination schedule is followed.

The main objective of poultry demo unit is to offer trainings and create awareness on developed breeds, incubation methods, brooding methods, disease management and vaccination of chicks to farmers, farm women, and rural youth.

SHEEP REARING UNIT

A sheep unit has been established in RASS Krishi Vigyan Kendra, Tirupati for offering trainings to Farmers, Farm Women, and Rural youth as most of the rural people depend on livestock rearing for their livelihood.

Sheep unit is maintained with well established shed with semi intensive method of rearing. The unit is maintained with breed varieties that is Nellore brown, Nellore jodipi, Nellore palla and Deccani breeds. Breed characteristics are as follows

NELLORE

- This breed is native to Andhra Pradesh primarily Nellore and Prakasam districts.
- This is the tallest breed of sheep in India
- It has long face and long ears with body densely covered with short hair
- This breed is present in three varients i.e., Nellore jodipi, Nellore palla, Nellore brown.
- Males has an average body weight of 35-40 kgs and females have 26kgs in 10 months.

Sheep are allowed for open grazing in the morning hours, dry fodder and concentrates are being fed later at the shed. Urea molasses mineral mixture blocks were made hang inside the shed to avoid deficiencies of trace minerals.

Ration formulation of concentrates for sheep is as follows	
Ingredient	**Percentage**
Jowar/Maize/bajra grain	**30**
Broken Rice	**20**
Rice bran	**15-20**
Bengal gram flour/soyabean meal/groundnut cake	**20**
Green gram/Bengal gram/Red gram bran	**10**
Mineral mixture	**2**
Salt	**1**

The main objective of the sheep unit is to create awareness on various sheep breeds, its meat production technology, disease management, general management of shed and vaccination procedures to farmers, farm women and rural youth in addition to trainings. The sheep manure is being used for organic farming at kvk farm.

Azolla Demo Unit

An Azolla production unit has been established in RASS Krishi Vigyan Kendra, Tirupati to demonstrate its production technology to Farmers, Farm Women, and Rural youth as most of the rural people depend on cattle rearing and backyard poultry rearing for their livelihood.

Importance

- Azolla is one of the greatest alternative for green fodder.
- Azolla is a source of protein, with 25–30% protein, 7–10% amino acids, vitamins (Beta Carotene, vitamin A, vitamin B12), minerals (calcium, potassium, phosphorus, ferrous, magnesium, copper, etc.), and antioxidants.
- Azolla can be fed to animals like cow, buffalo, sheep, goat and poultry because it is easily digestible (because to its high protein and low lignin content).
- Azolla increases feed efficiency, average daily gain of animals, milk production and egg production by 15–20%.
- Azolla can be fed to poultry @50g per day per bird, cattle @1.5-2 kg per day per milch cattle and sheep/goat @300-500g per day per animal.

Azolla feeding to poultry and cattle

Azolla pit preparation

- Production of Azolla requires cement concrete tanks of size 6 ft long, 4ft wide, and 1-1.5 ft deep
- Due care should be taken so that water can stand in the tank
- Sieved fertile soil about 10-15 kg mixed with dung and water must be evenly spread at the bottom of tanks.
- Then fill the tank with water till the water collects to a height of 10 to 15 cm
- Allow the soil particle to settle down for 1 day. Remove the layer of foam and scum that forms on the surface of the water
- Then allow the tank to stand overnight.
- On the following day, spread around 200 g of fresh Azolla inoculum over the surface of the water.
- The water level in the tank should be maintained especially during the summer months.
- To reduce excessive ambient light, a shade made out of coconut leaves/Shade net may be laid above the tank.

Azolla harvesting and yield

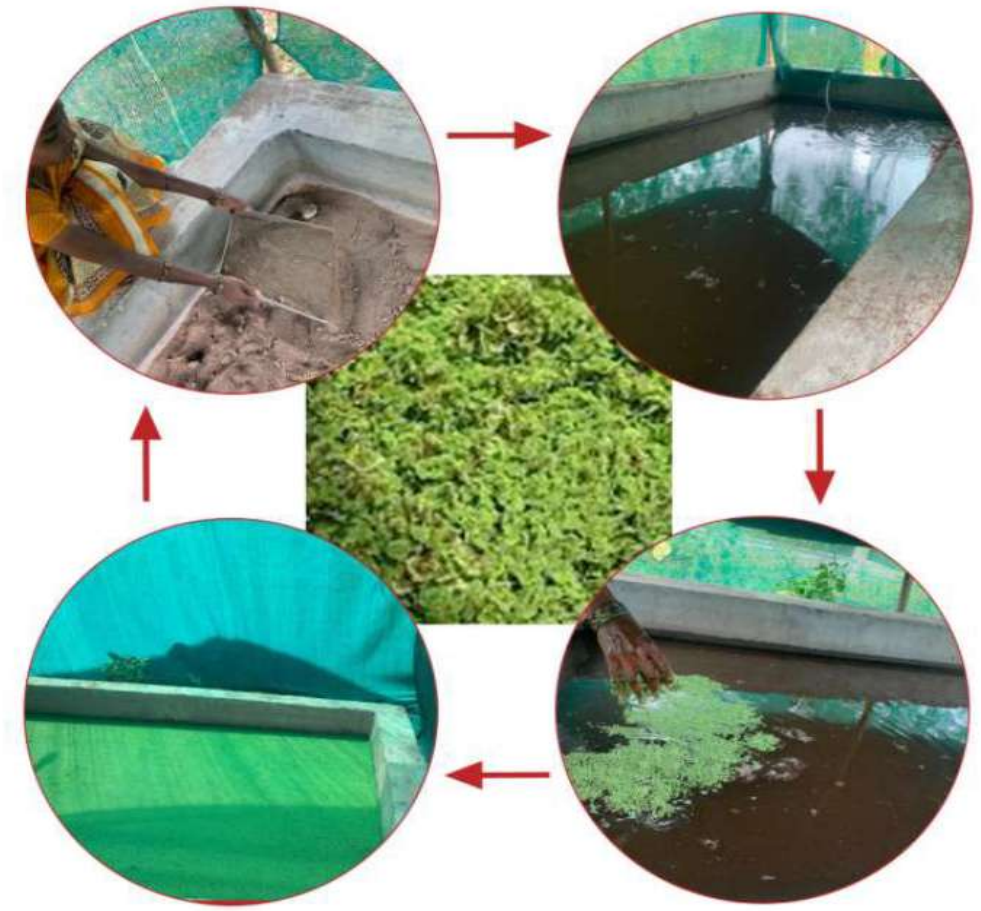
- It takes about 1-2 weeks for Azolla to form a mat over the water surface.
- Initially, Azolla will spread over the entire bed and will take the shape of a thick mat within seven days.
- Ideally, it will give 5 kg of Azolla within seven days. During the initial seven days Azolla should not harvested.
- After the seventh day, 1 kg of Azolla can be harvested every day.
- Azolla should be harvested in plastic trays with sieve and azolla wash can be used as bio-manure for plants grown nearby.
- Harvested azolla should be washed in freshwater to remove the smell of cow dung before it is fed to the animals, poultry and fish.

Precautions to be followed

- A mixture made of cow dung, soil, and water should be added once in ten days.
- After every 6 months, the soil is removed from the bed and another 15 kg of fresh fertile soil is added into the bed and fresh inoculation of Azolla should be added.

Azolla as green manure

- 4-5 Kgs of fresh Azolla can be applied in standing water one week after planting of paddy
- After its even spreading, water should be drained out from fields to allow Azolla to decompose in respective paddy plots.
- Azolla can be used as a bio-fertilizer, a mosquito repellent, and above all as a bio-scavenger as it takes away all heavy metals



Fodder demo unit

Fodder demonstration unit with fodder cowpea variety has been established at RASS Krishi Vigyan Kendra, Tirupati for offering trainings to farmers, farm women, rural youth and also for feeding of sheep unit at KVK.

1. Fodder Cowpea variety is a leguminous fodder crop.
2. It is an annual crop with a yield of 20-25 tonnes/ hectare.
3. This crop grows well in medium to light red soils and black soils.
4. The best sowing time is Kharif-June-July, Rabi- September-January, Summer-Jan-March.
5. The seed rate of sowing is 35-40 Kg/ha with spacing of 30×10 cms.
6. This fodder crop can withstand water logging to some extent.
7. The manures should be applied @FYM 5t/ha, 20N:40 P_2O_5 Kg/ha as basal.
8. Suitable weedicide is Pendimethaline @0.5ml/lit of water as pre-planting application.
9. The fodder yield is @20-25 tonnes/ hac in irrigated land.

Feeding of fodder cowpea to sheep acts as an adequate protein and energy supplement to sustain ruminant production especially during an extended dry season.