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## ***A Review on Success Story and Farmer's Meeting***

**Rural Horticultural Work Experience (RHWE) is a course offered to undergraduate students to get associated with the farmer's community and to understand the Agricultural / Horticultural conditions in the rural areas. In addition to the demonstration, we conducted farmers meeting viz., Azolla cultivation, and Diary farming. We also met a farmer who was involved in the integrated farming system and we collected the information regarding the integrated farming system in Kaveripakkam village.**

### **INTRODUCTION**

Conducting a meeting and collecting the success stories is one of the integral parts of the RHWE program. Here we have met a farmer doing an Integrated farming system. Also, we have conducted farmers meeting on Azolla preparation and maintenance and dairy farming.

### **SUCCESS STORY**

Mr. Haridas is one of the successful farmers from the village Cheri. He is a big farmer with a land holding of 30 acres. He quit his job in agriculture. In his land integrated farming is practiced. The major crops grown are sugarcane, banana, chili, and groundnut. Along with this he also has poultry, goat, and rabbit rearing. The waste from the kitchen is used for composting. He is also involved in social services by conducting farm school programs and also introducing farmers to new technology in agriculture. He owns types of machinery like the tractor, weeder, set cutter, etc. Different crops maintained by the farmer are summarized below.

### **SUGARCANE (*Saccharum officinarum*)**

Sugarcane is the major crop grown on an acre of land. For planting the sugarcane he uses sets cutter. Trash mulching is followed in the field using cane trash. Such mulching will also reduce the weeds in the field. The water source used for the cultivation is Kaveripakkam Lake.

About in 20 acres of land sugarcane is grown. Five ploughing is done before planting.

The variety used is Co 11015, CoM 11085 (resistance to Ring spot disease). For one acre 5,000 setts are used for planting. For the planting, he uses a sett cutter. Irrigation is given in 15 days intervals. The water source is from a bore well. FYM and goat manure is used in the land. Trash mulching is followed in the field using cane trash. Trash mulching will also reduce the weeds in the field.

### CHILLI (*Capsicum annuum*)

Chilli is one of the vegetable crops grown in his field. Seedlings are brought and transplanted in the field. The variety used is 'mundu chili'. Drip irrigation is followed in the field to avoid wastage of water. Spacing of 60×45cm is followed. FYM and other farm manures are used. Weeding is done manual. Seed rate maintained for the varieties and hybrids are 1.0 kg/ha and 200-250g/ha respectively. The nursery area maintained is 100 sq.m/ha. The seeds are treated with 4g /kg of *Trichoderma viride* and sown with 10 cm distance between the plants in the nursery bed. Nursery has to be drenched using 2.5 g/l of copper oxychloride at 15 days interval against damping-off disease. Fields are prepared by adding FYM about 25 t/ha. Fields are formed with ridges and furrows with the spacing of 60 cm. Transplant should be done at 40 - 45 days old seedlings. Weeds are managed by using pendimethalin 1.0 kg/ha as preemergence herbicide and hand weeding after 30 days.

### BANANA

Banana is cultivated on a small scale and the variety grown is Karpooravalli. For banana cultivation, the field preparation starts with ploughing and after ploughing FYM is applied. Sucker is used as planting material and suckers are bought from kannamangalam and pit planting is followed, suckers are planted at the center of the pit, and watering is done. In banana cultivation for getting better and quality yield intercultural operations are also practiced such as desuckering, propping, bunch covering. Propping is done using bamboo and bunch covering using gunny clothes. Spacing followed is 2×2m. After planting one irrigation should be done and the life irrigation should be done after four days, followed by once in a week. Copious irrigation should be given after the manure

application. For which drip irrigation system was followed @ 5-10 liters / plant/ day from the planting to fourth month. Up to shooting 10-15 liters/plant/day was followed. From the shooting to till 15 days prior to harvest 15 liters/plant/day was followed.

### GROUNDNUT

Groundnut is cultivated in his field and he has now planted the new varieties kathiri 1812. For one acre 50 sacks is used and from one plant 180 nuts are produced. The seeds were bought from Andhra Pradesh. The variety is one of the popular and best varieties with promising yield. In the groundnut field before sowing the field is ploughed till the fine tilth is attained. After the ploughing the seed is sown and FYM and compost are applied. Weeding is done manually and earthing up is also done. The crop is grown as rainfed especially in the kharif season and the same is cultivated in the rabi season as irrigated one. Also in rice fallows after harvesting the kharif.

### POULTRY

Poultry farming is also done on the farm and the waste from the farm is used as manure in the field. Poultry farming is mainly done for egg purposes and meat purposes. A deep litter system is followed for the Poultry rearing. Sawdust and straws are used as litter. Clean water is and food is also provided. The breed is siruvidai lays 120-140 eggs in 8 months. 50 hens are there on the farm.



### GOAT

Goat rearing is also practiced and the local breeds are reared on the farm. The waste from the goat farm is also used as manure. The shed is cement floored and the goats are taken for grazing in the daytime and are kept under the house in the nighttime. The breed on the farm is Salem goat,

they are normally lean and tall and black in color and mainly for meat purposes. There are about 50 goats on the farm. In the shed semi-intensive system is followed where the goats are taken for grazing daily and are kept under a shed at night time. Clean food and water are provided in the shed. At the first month of age and then once in a month up to 6 months of age deworming is done.

### FARMERS MEETING

#### CONDUCTING FARMERS MEETING ON AZOLLA

Azolla is an aquatic fern that can fix atmospheric nitrogen. Azolla can be used as feed for livestock due to the high protein content present.

#### ADVANTAGES OF AZOLLA

1. Nitrogen fixation
2. Green manure
3. Feed for livestock
4. Limitation of volatilization

#### NUTRITION VALUE IN AZOLLA

1. Protein (25 – 35 %)
2. Calcium (67 mg / 100 g)
3. Iron (7.3 mg / 100 g)

#### AZOLLA

We conducted the demonstration of azolla in Kaveripakkam. We explained the azolla cultivation methods and uses, how it fixes nitrogen, and milk production increase for cattle, and goats. Azolla is an aquatic fern grows well in fresh water and is naturally available in moist soils ponds, and widely distributed in belts of India. Depending on the source of nutrient added in the tank the growth azolla falls. It can also be harvested daily after the maturity. It can be fed either in fresh or dried form to the livestock. It can be provided directly or mixed with the concentrates. Azolla is the best feed for cattle to increase the milk quantity since it contains a higher amount of nitrogen content. So, we recommend the farmers to give the azolla as feed for cattle and it should be very low in cost, it grows within 15 days.

#### PREPARATION

First step is to prepare a pit using the plastic sheet and the edges are to be covered with mud to avoid replacement of sheet and half kilograms of cow dung is added and azolla is brought in jeevamuthra

and placed in the pit and is covered for 15 – 20. Shade should be provided. Azolla can be a fed to the cow after removing the cow dung about 75 – 100g can be given daily.



#### CONDUCTING MEETING ON DAIRY FARMING

Dairy farming is one of the important sources of income for both small and medium farmers and also for agricultural workers. In addition, livestock wastes help to make natural manure, enrich the soil, and help the crop to grow well.



#### HOWSING

1. The tent for animal husbandry should be set up in a dry place without moisture.
2. Avoid setting up tents in areas where water stagnates during heavy rains, such as torrential rains.
3. Its wall should be 1.5 by 2 m high.
4. The walls of this tent should be painted to prevent moisture leakage.

5. Its roof should be 3-4 m high.
6. The wall should be sprayed with malathion or copper sulphate to protect them from external parasites (lice, flies).
7. Cattle urine should be collected in small pits and then added to the irrigation canal.

#### **MILKING**

1. Milk 2 – 3 times a day.
2. You have to choose the specific time to milk.
3. It should take about eight minutes to milk.

#### **REPRODUCTIVE PERIOD CARE**

1. Full details of ovulation, fertilization, and calving of dairy cows should be closely monitored and recorded in the individual journal.
2. Fertilization should be reported during the proper menstrual cycle.
3. Bleeding should be stopped within 60 – 80 days of calving.

#### **CARING FOR CALVES**

1. The newborn calf should be protected very carefully.

2. The umbilical cord should be cut with a sharp knife. At the same time, it should be cleaned with an iodine alcohol solution to prevent infection.
3. The calf should be breastfed within 30 minutes of birth.
4. Help to drink milk if the calf is very loose.
5. If the calf refuses to drink breast milk immediately after birth, the breast milk should be stored and served in the bucket for drinking.

For 2 months after calving, it should be maintained alone in a dry clean and well-ventilated area.

#### **CONCLUSION**

As a part of RHWE programme, here we have conducted farmers meeting regarding azolla preparation and dairy farming. Also, we have associated with the farmer who has been involved in the integrated farming system as a part of this programme. While doing so, we have gained good knowledge about farming practices which will be useful for our future endeavors.