ORGANIC FARMING[PROJECT 1]

MOOC PROJECT REPORT

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CONTENT

Abstract

Organic farming offers an alternative to more widespread, high input farming practices that use synthetic fertilizers, fungicides and pesticides. It is based on the idea that the soil is a living system so these synthetic products are largely excluded from organic farms. Organic agriculture relies on crop rotation, animal manures, crop residues, green manures and the biological control of pests and diseases to maintain soil health and productivity. Organic crops are often of higher value than conventional ones and the volume of organic crops shows a continually increasing production trend. The sale of crops labeled as organic or biological is highly regulated in most advanced markets. The environmental impact of organic farming is low and can be seen as a way of cleaning up and improving degraded agricultural land.

CHAPTER-1

INTRODUCTION

Organic farming system is a method of farming system which primarily aimed at sustainable agricultural production in an eco-friendly pollution free environment and being followed from ancient time in India. Organic production system, keep the environment and ecology alive and in good health by use of natural resources to harness desired agricultural production for human consumption. In organic production, environment focus is on using naturally available resources as inputs, such as organic wastes [crop, animal and farm wastes, aquatic wastes] and other biological materials along with beneficial microbes [bio fertilizers/ bio control agents] to release nutrients to crops and protect them from insect pest and diseases for increased agricultural production.

NEED OF ORGANIC FARMING

The stress of feeding the growing population pressure on agriculture necessitates not only to keep agricultural production continuous but to surge it further in sustainable way. Modern conventional farming using pricey chemicals and synthetic inputs is now facing sustained production with high input cost and weakening returns surpluses.

IMPORTANCE OF ORGANIC FARMING

- Increases and maintain soil fertility.
- Improves soil and water efficiency.
- Resistant to pests and weeds.
- Maintain and improve soil structure and biodiversity.
- Reduce erosion.
- Reduce the risks of human, animal and environmental exposure to toxic materials

CHAPTER – 2
MATERIALS AND METHODS

LOCATION

I am AKSHARA SHAJI , B.sc Botany student at Assumption College Autonomous, Changanacherry, Kottayam. I have done the farming in my house and my place of living is in PAIPPAD, Changanacherry, Kottayam.

CROPS SELECTED

1. Green chilli
2. brinjal
3. tomatto
4.valari payar
5.vazhuthananga

SOURCES OF SEEDS/SEEDLINGS

Seeds/seedlings used for planting was from different sources. The seeds of valari payar and the seedlings of green chilli, and tomatto were from CHSS, which is an agricultural information and sales centre in Changanacherry. The of brinjal and vazhuthananga were planted from those stored for the purpose of agriculture.

AREA OR NO.OF GROWBAGS

six sacks where selected for planting the above mentioned three crops like tomato,brinjal,vazhuthanangaand and other two crops are directly planted on the soil.The sacks where placed at the back yard
where it was possible to receive direct sunlight. The crops was planted in six sacks each and two crops are planted in soil.

CROP SEASON

The farming was from the end of summer season and duringrainyseason.

EQUIPMENTS USED

- Hoe
- Knife
- Bill hook
- Trowel
- Gardening fork
- Scissors

SOURCES OF MANURE

The kitchen waste compost which was prepared at home weremostly used, as it is the best for organic farming. Cowdungwasalso used since it is rich in minerals such as nitrogen, phosphorous and potassium. The cow dung used for farmingwasobtained from my neighbourhood. These all things were obtainedat free cost.

BIO-PESTICIDES

For better yield and pest control, bio-pesticides were alsousedalong with manure.

- Neem oil - it act as both fungicide and pesticide.
- Tobacco decoction - it controls soft bodied insects that infectsvegetable crops.

LAND PREPARATION

As mentioned earlier 25 sacks was used for organic farming. Thesoil for filling the sacks was obtained from our own land. Toplough the soil a hoe was used and to loosen the soil a bill hookwas used. Then the loosened soil was mixed with cow water was sprayed over it to make the soil wet.

SACK FILLING

The above prepared mixture was used for filling the sacks. Along with these mixture of soil, cow dung, green leaves and manure were added.Three-fourth of the sack was filled with these.

SEEDING/PLANTING

- vazhuthananga, green chilli, tomatto,valari payar and brinjal were the crops that I planted.
- Three crops were planted in 6 sacks for each and two crops are planted on our land ,total of 6 sacks and two crops in our land.
- The seed of vazhuthananga and brinjal was used for planting.
- The seedling of green chilli and tomatto were used for planting.
- The seedling of valari payar were used for planting.

PEST-DISEASE MANAGEMENT

Mix of porridge water, papaya leaves and neem leaves was sprayed to plants to make the plant protected from small insects and pests.

WATER MANAGEMENT

During the first week of planting the crops, water was sprayed at evening. After the seeds sprouted, it was watered regularly during morning and evening.But during rainy days watering was not done.

HARVEST

Green chilli, tomato, brinjal,vazhuthananga,valari payer can be harvested frequently from their fruiting stage.

CHAPTER -3

OBSERVATIONS AND DATA COLLECTIONS

TABLE -1 : GERMINATION PERSENTAGE

Crop	Germination percentage
Green chilli	75%
Tomatto	90%
Vazhuthananga	50%
Brinjal	63%
Valari payar	80%

- From the above table, it is understood that tomatto and Valari payar were the crops that got germinated 80% and above.
- Vazhuthananga was the crop that got leastgerminated [50%] among the crops.

TABLE -2: Height of the plants in cm

Crops	Height of plants
Green chilli	50 cm
Vazhuthananga	80cm
Brinjal	60cm
Valari payar	85 cm
tomatto	90cm

- As for the height of the plant, it was the tomato crop which had shown the highest growth among the plants.
- The least growth was shown by the green chilli plant among the crops

Table 3 : No of Branches

Crops	No of Branches
Green chilli	14
vazhuthananga	4
brinjal	16
Valari payar	No
tomatto	6

- Among the crops, vazhuthananga had less no.of branches [4].
- brinjal had higher no.of branches [16] among the plants.
- Valari payar is a climper it has no branches.

Table 4: Day of first flowering after planting the crops

crops	No.of days [after planning]
Green chilli	30
Tomato	42
Vazhuthananga	50
Brinjal	45
Valari payar	31

- Valari payar and green chili, first flowering were seen after 1 month. Among these plants, green chili had shown so many flowers at a time and valari payar also have more flowers
- Tomato plant first flowers were seen 45 to 60 days are taken.
- Vazhuthananga and brinjal first flowering were seen after 2 or 3 month.

Table 5: Day of first fruiting [Days after planting]

crops	No of days
Green chilli	37
tomatto	52
vazhuthananga	62
brinjal	80
Valari payar	60

- Green chili had shown the first fruiting after one and half month of planting.
- Brinjal ,vazhuthananga and valari payar taken two and half months of planting.
- Tomato had shown the first fruiting after one and half month of planting

Table 6: Harvest days [Days after planting]

crops	No.of days
Green chilli	16
tomatto	4
vazhuthananga	5
brinjal	6
Valari payar	25

- The first harvested crop was valari payar green chilli
- Tomato frist harvested after two and half mouth.
- Vazhuthananga and brinjal frist harvested after three mouths.

CHAPTER - 4
PHOTOS

Flowering stage:

VALARI PAYAR

GREEN CHILI

BRINJAL

TOMATTO

Fruiting Stage:

TOMATTO

VAZHUTHANANGA

BRINJAL

GREEN CHILLI

Harvest Stage:

CHAPTER - 5
COST - BENEFIT ANALYSIS

The vegetables that I cultivated was used for homely purpose, because we spend a lot of money to buy vegetables in a week itself. So there wasn't any profit motive. Although the yield does not reached that I expected,it was beneficial for our homely purpose and was of good quality.

Even though I encountered minor issues like heavy rain and wind, it was able to yield pure organic vegetables at home. A course of Valari payar was used and also given to our neighbour. Green chili that got harvested grew and produced a great amount and still it is yielding. Brinjal and vazhuthanga also showed great amount of yield. Tomato also got harvested grew and produced a great amount of yield The full process of organic farming was not that much expensive, since the manure and other organic materials were homemade.

From this project of organic farming, we were able to yield vegetables for our homely purpose, which was pure and able to eat without any worries.

CHAPTER - 6
CONCLUSION

Organic farming yields more nutritious and safe food. The popularity of organic food is growing dramatically as consumer seeks the organic foods that are thought to be healthier and safer. Thus, organic food perhaps ensures food safety from farmland to plate. The organic farming process is more eco-friendly than conventional farming. Organic farming keeps soil healthy and maintains environment integrity.Plants and animals grow healthy when organic gardening is practiced.

Organic agricultural practices are a promising method that will hopefully be expanded in the near future. The benefits of buying, eating and producing organically well out weighs the negatives. The price may be a factor in deciding to buy organic but the health of our soil should be more important. In our environmentally conscious world, people need to be more informed about how their food is produced and what effects that is having on the earth and our futures.

So we should promote organic farming, to promote a healthy society and future

REFERENCE

- https://academic.oup.com
- https://iopscience.iop.org
- https://ncof.dacnet.nic.in