

## **BEST PRACTICES OF 2020-2021**

### **1. TITLE OF THE PRACTICE: ORGANIC FARMING – Prakruthi Vyavasayam**

#### **2. The context that required the initiation of the practice**

In the present day context of environmental pollution the quality of the crop production is decreasing and deteriorating. The production of these plants is linked with the heavy usage of chemical fertilizers and pesticides. The usage of these chemicals is not only harmful to the soil as well as the produce but also the persons who consume them. Excessive use of Fertilizers and pesticides have reduced the soil fertility over the years. Before green revolution the fertility of the soil is good compared to present day in terms of carbon and essential minerals present in the soil. Our native farmers used to practice the natural farming or organic farming without using chemical fertilizers and pesticides. Sudden shortage of food due to famines and other reasons, farming community under the leadership of Norman Borlaug turned towards the green revolution. In want of high production excessive usage of fertilizers and pesticides are used along with better efficient water management strategies. In the present day the mixture of Old traditional knowledge of Organic farming with new water efficient management is the need of the hour to regain and retain the fertility of the soil. With an intention of producing chemical free organic food, for the betterment of society our college has started practicing the organic farming in our new palm garden. Initially we are concentrating on bringing awareness in the student community regarding the benefits of organic farming

#### **3. Objectives of the practice:**

1. To produce chemical residue free food material through Organic farming.
2. To produce the leafy vegetables like Kenaf, garden curry, Spinach, Coriander, Methi through Organic farming
3. To produce the fruit yielding vegetables like Tomato, Chillies etc through Organic farming
4. To produce Cucurbits like ribbed guard and Keera through Organic farming
5. To produce fruits like Citrullus (Water melon)
6. To prepare our own Organic fertilizers and Organic pesticides in the college.
7. To sell the produce among the staff and students and increase the awareness and income on organic farming.

#### **4. The Practice:**

The practice of Organic farming involved following steps

1. Selection of land for Organic farming
2. Collaboration with Organic farmers and Government Officials involved in Organic farming
3. Preparation of land
4. Seed treatment
5. Preparation of Organic fertilizers and pesticides
6. Sowing the vegetable and fruit plants in the selected land
7. Water Management
8. Production
9. Sale of Organic vegetables to students and staff.

The unique ness of this practice is that BZC students in particular and other students in general voluntarily participating in this organic farming practice. Each and every work from land preparation to fertilizer preparation and application, sowing seeds, weed management watering plants regularly are done under the supervision of the Botany department staff.

### **1. Selection of land:**

Our new Palm garden is selected for Organic farming after through discussion made by the Principal with Botany department. This site has an advantage of assured water supply, sufficient sunlight, protected area under fencing and better accessibility to Botany department.

### **2. Collaboration:**

Once we planned to start the Organic farming, Principal of the college and Botany department visited the nearest organic farm at Venkatadripalem village which is nearly 7 km from our college. Jillellamudi Venkteswarlu, a postgraduate in MBA is practicing the organic farming in this village. He along with AP government employee of Organic farming Sunitha assisted our Organic farming practice. We came to an understanding with this farmer and AP govt. employee that technical support and knowledge transfer will done to the staff and students of the college for the smooth and successful running of this project.

### **3. Preparation of land:**

As the land is uneven, machinery is used to level the land. Before that proper fencing is done surrounding the land to prevent the unwanted elements ( animals and outsiders) to enter the site. Soil test is done to know the fertility status. To increase the fertility navadhanya treatment is done where different seeds are mixed and sown in the land and ploughed these plants in to the soil when they grow 2 ft height. This increases the carbon and mineral composition in the soil.

### **4. Seed treatment:**

The seeds used for organic farming before sowing are treated with jeevamrutham which is made from cow urine dung and other elements. This increases the chances of better germination and avoid the root decay.

### **5. Preparation of Organic fertilizers and pesticides:**

Through the knowledge we acquire from the organic farmer our students prepared different fertilizers and pesticides much before the sowing of the plants. This is the most important step in organic farming practice. Our students prepared fertilizers like Dravajeevamrutham, Ghanajeevamrutham, and pesticides like Mattidraavanam and Agnastram.

### **6. Sowing the vegetable and fruit plants in the selected land**

After the preparation of required minimum fertilizers and seed treatment we started a mass sowing program which involved Principal, staff and all the BZC students under the guidance of J. Venkateswarlu and Sunitha madam.

### **7. Water Management:**

We are in advantage in having surplus water supply through overhead tanks. The water from tanks are supplied through pipes. We have three different taps to surve this purpose in the garden. To make the work easy water channels are dug to water the plants for few varieties.

### **8. Production and sale of Organic food.**

It takes few months for the production. If every thing goes well and once we get the production It is sold among our college students and staff. The money we get through

this practice will be invested to start the second cycle for the smooth running of this practice.

#### **5. Obstacles faced if any and strategies adopted to overcome them**

The first and foremost obstacle we faced is the knowledge transfer of Organic farming. Though our faculty of Botany are doctorates they have minimum knowledge in Organic farming. This obstacle is cleared by our Principal of the college. His initiative and guidance paved a smooth transfer of knowledge from organic farming experts to our faculty and students.

The second obstacle we faced is uneven and low fertile land. This is overcome by active and mass participation of our students with technical support from experts.

The third obstacle and most important obstacle is who will take the responsibility of the organic farming site. The BZC students of the college has taken over the responsibility of maintaining the practice. During holidays and vacations gardener and other office subordinates will take over the charge of watering plants and their maintenance.

The fourth obstacle we come across is the leaf spoilage of plantlets. The students brought this to the notice of staff and sprayed mattidranam to solve this problem. All the plants are growing healthily up to this stage and the students along with the staff are looking anxiously forward for the production.

#### **6. Impact of the practice.**

The joy of producing the healthy produce is unexplainable in words. All the students involved in Organic farming are enjoying it. This practice really created a work culture, responsibility and accountability among the students and staff. So many farmers and parents of the students visited our organic farming site and appreciated the students and staff involved in the practice. It is our small attempt to change and divert our local public towards healthy produce. We think the work is half done. In future we will conduct seminars and workshops on Organic farming and disseminate the organic farming practice to our nearby local farmers as a part of social responsibility of our institution.

#### **7. Resources required.**

1. Protected land with fencing
2. Material like cow dung, cow urine and other material for the preparation of Organic fertilizers and pesticides.
3. Seed material
4. Insect Traps
5. Water pipes and tap connections

INITIAL FIELD VISIT BY OUR PRINCIPAL AND BOTANY STAFF TO VENKATADRIPALEM ORGANIC FARM



## LAND PREPARATION



## STUDENT FIELD VIST



## SEED TREATMENT



## FERTILIZER PREPARATION



# SOWING





**WATERING PLANTS:**



## WEED MANAGEMENT:



## PESTICIDE APPLICATION

