

## **AD-HOC RECOMMENDATION FOR ORGANIC PRODUCTION OF THE PINEAPPLE VARIETY MAURITIUS**

### **Variety**

Kew and Mauritius are the varieties grown in Kerala. Mauritius is recommended for commercial cultivation for table purposes and distant marketing, due to its shorter duration, better fruit quality, keeping quality and transportability. Kew is recommended for processing industry

### **Season**

Main season of planting is April-May and August-September, but can also be planted in all months except during heavy rain of June-July. The best time for planting is August to get higher yield. During summer months, if there are no summer showers after planting, irrigation should be given three weeks after planting for proper establishment

### **Cropping system**

Mauritius can be grown as a pure crop in garden land, reclaimed lowlands and wetlands and as an intercrop in coconut and newly planted rubber plantations. In rubber plantation, it can be grown for the first 3-4 years only.

### **Land preparation**

#### ***Pure crop***

Prepare the land by digging the area to be planted at 90 cm width in rows/ strips, leaving the interspaces undisturbed. However, ploughing can be adopted in level land. Planting is done in paired rows of 45cm distance between rows and 30cm between suckers. Suckers may be planted in triangular method in the paired rows. Interspace between the paired rows is kept at 120-150cm. Contour planting is ideal in sloppy areas to prevent soil erosion. About 30000 suckers can be planted in one ha.

#### ***Intercropping in coconut garden***

Land preparation, spacing and planting are the same as described above in pure crop. There can be three-paired rows in between two rows of coconut. Coconut tree basin should be kept free. About 20-22000 suckers can be planted in one ha.

#### ***Intercropping in rubber plantations***

System of planting is in paired rows at 45 x 30cm. Either one or two paired rows can be planted in between two rows of rubber depending on the spacing of the rubber planting. About 20000 suckers can be planted in one ha.

#### ***Wetlands / lowlands***

Pineapple is highly sensitive to water stagnation and high moisture regimes. Hence it is important to provide good drainage, if grown in wetlands. In paddy lands, pineapple is planted in paired rows at 45 x 30cm spacing on ridges taken at 60-90cm height, depending on the water table and drainage requirement. The ridges are separated by drainage channels having 60cm width. The width of the ridges varies from 120-150cm.



Wherever water stagnation and poor drainage are expected, a wider and deeper channel is given in between ridges. About 25-30000 suckers can be planted in one ha.

### **Selection of suckers**

Suckers are selected from disease and pest free healthy plants. Suckers are to be graded into those having 500-750g and 750-1000g. The graded suckers are planted in different blocks or plots, to get uniformity in growth and flowering. Bigger suckers give early yield.

### **Planting**

After preliminary land preparations, planting is done in small pits of 10-15cm depth at a spacing of 45cm between rows and 30cm between plants in the rows. There is no need to plant the suckers in trenches.

### **Manuring**

Apply compost / FYM at the rate of 500 gm per plant at the time of planting. Also apply rock phosphate at the rate of 20 gm per plant and bone meal @ 50 gm per plant. It will be ideal to apply the compost/ FYM, rock phosphate and bone meal in the pits taken for planting. Six weeks after planting, apply 250 gm cowdung or vermi compost, 50 gm neem cake, 50 gm groundnut cake, one gm azospirillum and one gm phosphobactor for each plant and mild earthing up is done. Apply 1.5 g of SOP in liquid form along with cowdung solution at an interval of 6, 10, 14, 18, 22 and 30 weeks after planting for each plant.

### **Irrigation**

Wherever irrigation facilities are available, providing irrigation in summer months at two weeks intervals results in good fruit size and high yield. If there is no irrigation facility, the crop should be scheduled for harvest before summer months (before March).

### **Weed control**

Hand weeding can be adopted in between plants and spade weeding in interspaces. Weeds in interspaces can be controlled by intercropping with ginger, coleus, brinjal, bhendi etc. It can also be controlled by sowing green manure crops like sunn hemp or daincha which can be used as green manure for pineapple by 2-3 months.

### **Flower induction**

For inducing uniform flowering, 25 ppm ethephon is applied on physiologically mature plants having 39-42 leaves (7-8 months after planting). The solution for application in 1000 plants is prepared by adding 1.25 ml of ethephon ( 3.2 ml of 39% ethrel or 12.5ml of 10% ethrel ) in 50 litres of cowdung solution. Pour 50 ml of the prepared solution to the heart of the plant during dry weather conditions (when there is no rain during the time of application).

Flowering starts by 30 days and completes within 40 days of growth regulator application. Fruits will be ready for harvest by 130-135 days after the application of



growth regulator. Harvest over different months / seasons could be obtained by carefully phasing / planning the planting and growth regulator application.

## **Plant protection**

### ***Sun burn***

During summer months it is necessary to protect the fruits from scorching sun by putting dried grasses, coconut or arecanut leaves.

### **Diseases**

Root rot / heart rot / fruit rot caused by *Phytophthora* sp., *Pythium* sp., *Fusarium* sp., etc are common in poor drainage conditions. Providing drainage is most essential. The water table should be at least 60 cm below the soil surface. Badly affected plants should be destroyed. To prevent disease problems biocontrol agents can be used. Two weeks after planting, apply *Pseudomonas fluorescens* @ 2 g per plant in liquid form. Four weeks after planting, apply *Trichoderma* @ 2 g per plant in liquid form. Repeat its application if any diseases are observed.

### **Pests**

#### **Mealy bugs (*Dysmicoccus brevipes* / *Pseudococcus bromeliae*):**

Mealy bug is a serious problem in pineapple. For its control, sanitary measures are to be adopted. The plot should be kept weed free. Apply *Verticillium* @ 1 gm per plant in liquid form for the control of mealy bug.

### **Ratoon cropping**

The plant crop after harvest can be retained as ratoon crop for two more years. After the harvest of the plant crop, chopping the side leaves of the mother plant should be done for easy cultural operations. The suckers retained should be limited to one or two per mother plant. Excess suckers if any should be removed. Earthing up should be done. Other management practices are same as for the plant crop.

