Cultivation of Banana



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Disclaimer: The content material being provided is only for teaching purpose

Botanical Classification:

Scientific Name: Musa spp

Chromosome No.: 22

☐ Family : Musaceae

Botanical Description:

- ☐ Type of Fruit : Berry
- ☐ Edible Part : Endocarp
- Origin:- South East Asia

- Banana a tropical crop, grows well in a temperature range of 15°C 35°C with relative humidity of 75-85%.
- It require loamy soil with pH between 6.5 7.5
- Rich in organic material with high nitrogen content, adequate phosphorus and plenty of potash.
- * Average rainfall require is 650-750 mm.

☐ Important cultivars include:-

- Dwarf Cavendish
- Robusta
- Monthan
- Poovan
- Nendran
- Red banana
- Nyali
- Safed Velchi
- Basrai
- Ardhapuri
- Rasthali
- Karpurvalli
- Karthali
- •Grand Naine

- ➤ □ Prior to planting banana, green manuring crop like daincha, cowpea etc. is used to break the clod and bring the soil to a fine tilt.
- **×** Planting material:-
- × □ Suckers and tissue culture seedlings.
- ★ □ Sword suckers with well developed rhizome, having actively growing conical bud and weighing approximately 450-700 gm are commonly used as

- *** Important seasons for planting followed in different states of India are:-**
- **×** State Planting Time
- **★** Kharif June July
- * Rabi October November
- Rainfed April-May
- Irrigated crop- August-September

Manure and fertilizer

- 10 kg FYM
- 200 250gm N/plant- As top dressing in three equal parts at interval of 60,90 & 120 days.
- 60-70gm P/plant
- 300gm K/plant.
- Urea is applied in three to four split doses.
- SPACING IN BANANA PLANTING
- Traditionally banana growers plant the crop at 1.5m x 1.5m with high density.
- Season Spacing
- Kharif 1.5 x 1.5 m., 2 x 2 m. OR 2.5 x 2.5m.
- Rabi 1.5 x 1.2 m., 1.5 x 1.37 m.

☐ PROPPING



INTER-CROPPING:

- ★ □ Short duration crops (45-60 days) like mung, cowpea, daincha are to be considered as green manuring crops.
- ★ □ Leguminous crops, beetroot, ginger, turmeric and sunnhemp grown as an inter-crop during the first 3-4 months.

GROWTH REGULATORS

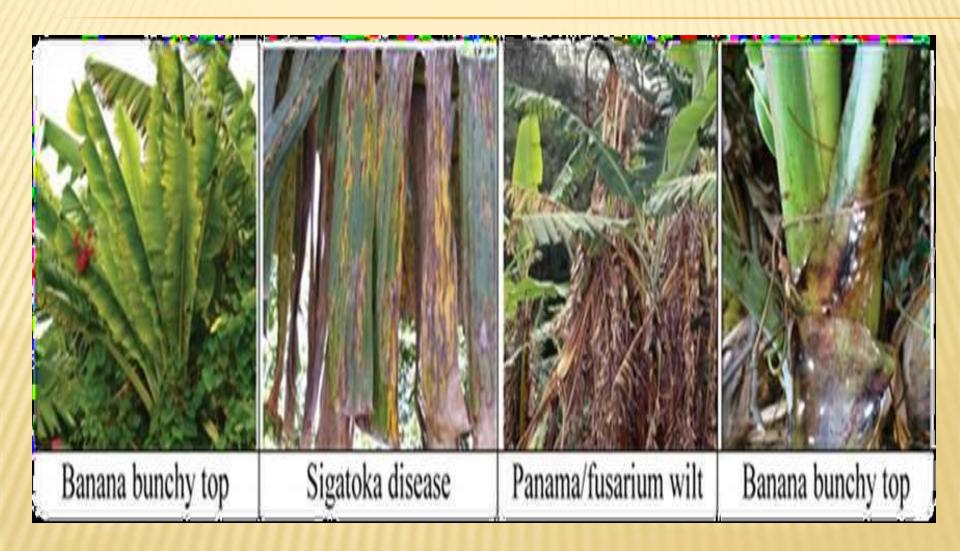
- × 2,4 D (25 ppm)- Improves the grade of bunches.
- × □ CCC (1000 ppm) at 4th & 6th month
- × □ Plantozyme (2 ml./l.) at 6th & 8th month
- ➤ □ potassium dihydrogen phosphate (0.5%) and urea (1%) or 2,4 D solution (10 ppm.) after bunch development improves banana size & quality

INSECT PESTS:-

- ☐ Root stock/rhizome weevil (*Cosmopolites sordidus*)
- **×** □ Stem borer (*Odioporus longicollis*)
- × □ Banana beetle (*Nodostoma subcostatum*)
- × □ Banana aphid (*Pentalonia nigronervosa*)
- Nematodes & Thrips
- ★ □ Application of 0.04% endosulfan, 0.1 % carbaryl or 0.05 %
- * monocrotophos depending upon the type of pest infestation.

DISEASES:-

- × 1. Panama wilt (Fusarium oxysporam)
- **×** 2. Anthracnose (Gleosporium musarum)
- * 3. Leaf spot (Sigatoka) [Mycosphaarella musicola & Cercospora musae]
- **×** 4. Shoot rot (*Ceratostomella paradoxa*)



ECONOMIC IMPORTANCE

- * Banana is a rich source of carbohydrate and is rich in vitamin B. It is also a good source of potassium, phosphorus, calcium & magnesium.
- ★ □ It helps in reducing risk of heart diseases, arthritis, ulcer, gastroenteritis and kidney disorders.
- ➤ □ Processed products, such as chips, banana puree, jam, jelly, juice, wine and halwa can be made from the fruit.

Thank you