HIGH DENSITY PLANTING IN BANANA

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High density planting in banana is a system in which a higher number of plants within a unit area is accommodated as compared to the conventional planting density. In high density, unit area of land is economically exploited, intercept solar radiation effectively, effective use of inputs-water and nutrients.

Planting material:

Sword sucker 3 months old and 2 kg weight

Pit size : 1m3

Pit filling : 18kg FYM + top soil

System of planting:

- 3 suckers/pit (30 cm from one sucker to another)
- 2 sucker /pit
- 1 sucker/ pit
- Paired row planting system

Spacing

- 2x3m /1.8x3.6m
- 2x3m /1.8x3.6m
- 1.8x1.8m /1.8x1.5m
- 1.2x1.2x2.0m

Fertilizers:

- 200:60:300gNPK/hill(1S/hill),
- 300:90:450gNPK/hill (3S/hill)

Time of application:

- 1st dose : 3rd months after planting(1/2 N, full dose of P2O5, ½ K2O)
- 2nd dose : 5 or 6 months after planting(1/2N, ½ K2O)

Method of application:

- Ring method 1st dose 45cm away from the plant
- 2nd dose 60 cm away from the plant.

Desuckering:

Upto shooting stage

Effects of high density planting

- Height of pseudostem is increased
- Stem girth is reduced with increased in density
- Functional leaf area per plant in closer spacing was always either more or equal to that in wider spacing
- Leaf emergence is reduced
- Sucker production is low
- Number of roots increased

Diseases

- Sigatoka leaf spot increased under HDP in high rainfall and coastal regions
- The dense geometry increased the humidity making it conducive for leaf spot incidence

Yield :

Based on different planting system and cultivars yield of banana varies from 41 to 110 t/ha.