

JOTTINGS

DOUBLE BANANA DOUBLES THE INCOME

The yield per hectare of Dwarf Cavendish banana can be doubled by a new method that is now becoming popular in Cumbum Valley of Madurai district of Tamil Nadu.

This new method has got the following advantages apart from doubling the yield and profit per hectare.

1. The colour and quality become better
2. The produce fetches better prices
3. Fruits do not get the sun scald
4. Ratooning is also possible

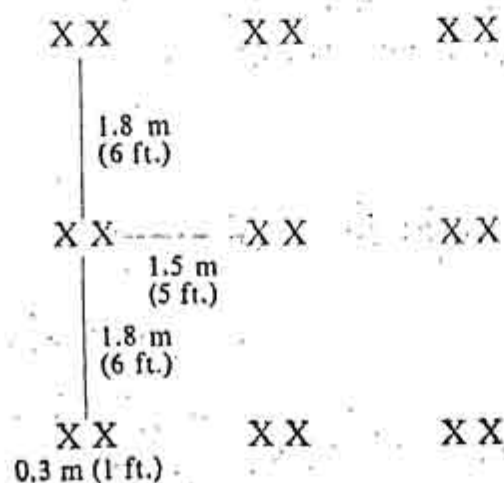
In this method the number of plants per hectare is doubled. Consequently the inputs are also doubled. All other operations are similar to those for the normal cultivation of Dwarf Cavendish.

The details of cultivation and the economics of this method are given below.

Preparation of Land: Banana requires well-drained, friable and fertile soil. It is generally cultivated under assured irrigation.

The land is ploughed eight to ten times. Twentyfive to thirtyfive tonnes of farmyard manure is applied per hectare and incorporated in the last 2 or 3 ploughings. Farmers sometimes apply tank silt to an extent of 500 cartloads to improve the structure and fertility of the soil.

Spacing and Planting : Usually the square system of planting is adopted with a spacing of 1.8 metres between plants either way. In the new method also, the square system of planting is adopted. A spacing of 1.8 metres is given but instead of one plant two plants are planted side by side with a space of 0.3 metres between them, as shown in diagram.



The spacing between the twin plants will be 0.3 m but this does not affect their growth. They do not bend outward but bend in the direction of their bunches as in the case of single banana.

Pits of 0.25 metre cube may be dug a week or ten days before planting. The pits are filled with top soil and farm yard manure. Suckers of uniform size are then planted.

Irrigation: Banana needs an abundant supply of water and also very good drainage. Maintenance of optimum moisture is very essential for banana. Bed or channel method of irrigation can be adopted depending upon the soil and availability of water. During summer, two irrigations may have to be given per week especially if the soil is friable and loose.

Manures and Fertilizers: Farmyard manure is applied at the rate of 25-35 tonnes per hectare.

Sunnhemp can be raised as intercrop for green manuring. A crop of sunnhemp can be raised by sowing seeds on the day of planting of suckers and a second crop of sunnhemp can be raised by sowing seeds 50 days after planting the suckers. Sunnhemp can be buried when it is 45 days old *i. e.* in its flowering stage. It may be buried in trenches drawn with spades in between the rows. Cross trenches may be drawn to bury the second crop of sunnhemp.

Fertiliser is applied in two doses, one in the third month and another in the fifth month after planting. Oil cake can also be applied along with the fertilisers.

The following quantities may be applied to *each plant* at each application (*i. e.* in the third and fifth month)

- a) 55 g of N in the form of ammonium sulphate (225 g) or urea (120 g)
- b) 18 g of P_2O_5 in the form of superphosphate (110 g)
- c) 165 g of K_2O in the form of muriate of potash (260 g)
- d) 250 g of oilcake

After the application of fertilisers, the crop should be irrigated daily for 2 or 3 days.

Intercropping: Sunnhemp can be raised as an intercrop in banana. Onion can also be raised as an intercrop. If onion is raised, it may fetch an income sufficient to meet the cost of fertilizers for the banana.

Aftercultivation: The common cultural practices adopted for the cultivation of banana like weeding, desuckering, trashing and propping are adopted for this method also. Plant protection measures should also be adopted.

Economics: The cost of cultivation in the new method is compared below with the cost in the normal method.

Cost of cultivation per hectare

	Single Banana Rs.	Double Banana Rs.
<i>Preparatory cultivation.</i>		
Ploughing	200	200
Digging pits, etc.	200	300
Fencing	250	250
	650	750
<i>Planting</i>		
Cost of suckers @ Rs. 150 per 1000	450	900
Planting Charges	50	75
	500	975
<i>Manures and Manuring</i>		
Cost of sunnhemp seed	150	150
Incorporating sunnhemp	100	100
Farmyard manure	375	375
Ammonium sulphate	875	1750
Super phosphate	190	380
Muriate of potash	810	1620
Oilcake	750	1500
	3250	5875
<i>Irrigation:</i>	750	1000
<i>After cultivation</i>		
Weeding	200	125
Trashing	25	50
Desuckering	125	200
Plant protection	125	190
	475	565
Total	5625	9165
<i>Receipts</i>		
At Rs. 7/- per bunch for 2750 bunches for single banana and 5500 bunches for double banana	19250	38500
Net Profit per hectare	13625	29335

It is clear that double banana means doubling the income through doubling the production in the existing area. It also means more foreign exchange for the nation.

T. GANAPATHI,

Programme Associate (Agricultural Information),
Ford Foundation, New Delhi.

1. Ammonium chloride increased the yield of groundnut:

An experiment under irrigated conditions was conducted to elicit information on the relative merits of the two types of N carriers viz., Ammonium chloride and Ammonium sulphate on groundnut yield and quality as well as the extent to which Ammonium chloride affects the soil properties, for four years (1966-69) at the Regional Agricultural Research Station, Tindivanam. The pod yield of groundnut on the average was increased by 4% by the application of ammonium chloride over ammonium sulphate under the same conditions. A 'N' dose of 10 lb/acre over the usual basal dressing of FYM, 'P' and 'K' was found to give maximum pod yield of 1645.6 kg/ha against 1583.7 kg/ha obtained for ammonium sulphate. None of the quality characteristics of the groundnut produce was found to be influenced by either the 'N' form or the 'N' level, tried.

A study of the soil data revealed that there was no change in the initial soil pH and soil salinity even after four years of experimentation between the 'N' forms and among the 'N' levels tried. This indicated that there was no residual effect by way of chlorine accumulation in the ammonium chloride treated plots. Further ammonium chloride did not bring about any calcium depletion than ammonium sulphate. The status of available 'N', 'P' and 'K' and the total 'P' content in the soil showed no residual effect, adverse or otherwise, by the application of ammonium chloride.

2. Achievements of vegetable section: CO 1 Ash-gourd:

Source: A reselection from the local type received from Alangulam of Tirunelveli District. *Season:* June to November (Adipattam) December to May Thai pattam. *Duration:* First harvest after 100 days of sowing and continued upto 140 days. *Seeds and sowing:* 1.2 kg of seeds per hectare - sow 6 seeds/pit and thin to 2 seedlings per pit after 15 days. *Spacing:* 3 meters either way. *Manuring:* Basal - 25 tonnes of FYM/ha or 25 kg of FYM per pit and 100 g of standard fertilizer mixture No. 6 (-12-12). Top - 500 g of Ammonium sulphate/pit. *After care:* Three to four weedings and irrigation at regular weekly intervals. *Plant Protection:* Spray Parathion (Folidol) 0.025% two times during the crop period commencing after a month of sowing or as

and when pests like fruit fly, epilachna beetle and others are noticed. Spray Malathion 0.1% or Carboryl (0.1%) three times at interval of 10 days commencing from the third week of sowing and stopping before fruitset. Dust sulphur (25 kg/ha) against powdery mildew and mites. Yield/ha: 20,400 kg.

Important economic characters: Belongs to *Benincasa hispida* L. - Plants comparatively vigorous and less spreading - produces flowers earlier - fruits attractive globular, bigger in size and with less seeds (0.8%) and more flesh - Tastes good - each fruit weighs 5 to 6 kg; each vine yields 6 to 8 fruits - vines are less susceptible to pests and diseases.

CO. 1. Pumpkin:

Source: A reselection from the local type collected from Melapavoor of Tirunelveli District. *Season:* June to December (Adipattam) December to May (Thaipattam). *Duration:* First harvest 115 days after sowing and continued upto 175 days. *Seeds and sowing:* 1,250 kg of seeds/ha - Sow 6 seeds per pit and thin to 2 seedlings/pit a 15 days after. *Spacing:* 3.6×3.6 meters. *Manuring:* Basal - 25 tonnes of FYM/ha or 25 kg FYM per pit - 100 g of standard fertiliser mixture No. 6 (6-12-12) per pit. Top - 500 g of Ammonium sulphate per pit. *After care:* 3 or 4 weedings and irrigation at regular weekly intervals. *Plant protection:* Spray Parathion (Folidol) 0.025% two times during the crop period - First after flowering and Second after a fortnight against the control of fruitfly and leaf eating caterpillars. Spray Malathion (0.1%) or Carboryl (0.1%) three times at intervals of 10 days commencing from the third week of sowing and stopping before fruit test. Dust sulphur (25 kg/ha) against powdery mildew and mites. Yield/ha: 28,800 kg.

Important economic characters: Belongs to *Cucurbita moschata* Duch - Plants vigorous and produce flowers earlier than the local types - Fruits attractive globular and with less seed content (12%) and more flesh - Tastes good. Each fruit weighs 7 to 8 kg - each vine produces 7 to 9 fruits - vines are less susceptible to pests and diseases.

(From the Deputy Director of Agriculture (Extension)
Agricultural College and Research Institute, Coimbatore-3)