

JOTTINGS

(1) Package of practices for gingelly (Irrigated):

1. SEASON : February–March to May–June
2. VARIETY : TMV 3
3. DURATION : 90 days
4. PREPARATORY CULTIVATION :
 - i) Plough 4 times with a mould board plough
 - ii) Obtain good surface tilth
 - iii) In the wet lands break the clods after repeated ploughing
5. MANURING :
 - (a) Organic : Plough in 15 tonnes per hectare (5 tons per acre) of farm yard manure or compost two weeks before sowing
 - (b) Inorganic : Apply before sowing 30 lb N; 10 lb P_2O_5 ; 10 lb K_2O per acre as a basal dose
6. SEED RATE : 5 to 6 kg per hectare (4 to 5 lb per acre)
7. SPACING : 30 cm \times 30 cm (12" \times 12")
8. TIME OF SOWING : Late February or early March
9. PLANT PROTECTION :
 - Shoot webber caterpillar : Dust DDT 5% at 9 kg per acre or spray with DDT 0.1% 200 g of DDT 50% wettable powder in 100 l. of water about 15 to 20 days after sowing as a prophylactic measure. Repeat if incidence is severe
 - Gall fly : Spray 0.1% Endrin once before flowering and another after a fortnight.
 - Phyllody disease : No curative treatment. Pull out affected plants.

- ii) Heap the harvested plants piled (Kuthari) for 4 to 5 days to ensure full maturity
- iii) Disturb "Kuthari" and dry the plants properly
- iv) Extract seeds carefully

(2) Grow your vegetables in proper season :

The optimum time of sowing has been fixed for the four vegetable crops as follows to realise high yields.

Ashgourd	...	June and July
Amaranthus	...	September and October
Bhendi	...	March to May
Pumpkin	...	July and August

(3) Chemical control of sorghum stemfly (*Atherigona* sp.) :

Atherigona sp. has become the serious pest of Sorghum in India and abroad. Its occurrence has been recorded on wheat. The damage is caused by maggots which penetrate into the stem and attack the apical meristem causing 'deadheart' similar to stemborer attack in sugarcane. The life cycle is very short and the maggots can attack only young seedlings and shoots. An experiment was conducted in a randomised block design with 14 treatments and four replications. The treatments were granules of Phorate 10%, Lindane 10%, Endrin 2% each applied in three different ways i. e. (i) below seed, (ii) above seed and (iii) on the soil surface respectively and emulsion sprays of demeton methyl, dieldrin, diazinon and dimethoate applied on the surface in the form of a spray at the rate of 50 ml a.i. per 1000 ft. row length. Granules of phorate and lindane were applied at the rate of 50 g a.i. per 1000 ft. row length.

Percentage of plant infestation recorded four weeks after spraying did not indicate significant difference between the control and demeton methyl, diazinon and endrin granules applied on the surface. Phorate and lindane applied by all the three methods described above, Endrin below the seed and Dieldrin applied on the soil surface proved equally effective; having no significant difference among themselves and proved superior to control.

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Studies on a Virus Disease of Tapioca (*Manihot esculenta* Crantz.) II. Carbohydrate Metabolism

by

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Virus disease exert a profound influence on the carbohydrate metabolism of the host. Plants infected by mosaic viruses show reduction of chlorophyll content which eventually reflects on the carbohydrate synthesis. A reduced level of carbohydrate content due to virus infection has been reported by many workers (Diener, 1963). Though Beck and Chant (1958) reported the changes in total carbohydrate content of CsMV infected cassava leaves, there is no information about the chlorophyll content, photosynthetic rate and fluctuation in carbohydrate content in the diseased leaves due to age and due to diurnal variations. Hence the present study was undertaken.

Materials and Methods: *Chlorophyll:* Estimation of total chlorophyll, chlorophyll *a*, chlorophyll *b* was carried out as per the method followed by Smith and Beintez (1955). Estimation of chlorophyllase activity was done