

The seedlings from 6 months to 36 months old are planted out in their permanent homes. The age of the seedlings is a question of the locality where it is planted out.

Some of the practices alluded to in the article seem to be very rare, particularly the one regarding filling up pits with marine shells.

## Reviews.

### 1. *Planting Sugarcane sets.*

In the Science Congress number of the Pusa Journal we find an interesting article about the planting of Sugarcane sets by Mr. Kulkarani, Deputy Director of Agriculture Bombay.

He says that by the ordinary method of planting, the sets produce a smaller number of plants than they are capable of, giving also uneven germination because the eye buds are placed in different directions in the ground, those on the top germinating first, those on the sides later and those at the bottom dying out altogether. So an experiment was started in Dharwar of planting sets so as to contain only one eye bud each and that being placed upwards. The experiment has been found successful on a field scale with the following inferences :—

(1) Sets with a single eye-bud planted as above have given a higher percentage of germination than in the local method of planting. The germination by this system was above 80%.

(2) The germination in the single eye-bud method was earlier by one week and all the plants germinated simultaneously. Thus a uniform crop was secured.

(3) The eye bud being placed upwards, the plants go straight up, and if planted deep there is less liability of the cane lodging when grown up, and also there is greater facility for work between the rows namely interculture, earthing up etc.

Since the percentage of germination is high in this system all the tillers are removed and only the mother canes are allowed to develop. Hence all the manure given becomes available to the mother canes only, and consequently they develop into long thick canes of uniform age, and ripen all at the same time, by which a higher percentage of sugar is expected than in cases of uneven age at harvest time.

The writer has by the above method got above 32,000 canes per acre of good size, the average weight of each cane being 5 lbs. It is expected by the author that the tonnage of cane would be over 130,000 lbs. per acre. There are good photographs given along with the article showing the uniformity of the crop and the height and thickness of the canes grown by the above method.

K. Ramiah.

2. *The mango hopper pest and its control in South India*.  
By T. V. Ramakrishna Ayyar, Acting Government Entomologist,  
Madras.

In this article the author gives a lucid picture of the damage caused by the mango hopper pest to mango crops. The insect is described and its life history and habits are delineated. It is also shown how by spraying an insecticide the pest may be controlled and precise directions are given about the machinery required, the most effective poisons and the time to spray. The cost of spraying is dealt with and from tabular statement recording the results of spraying in a number of gardens, it is clear that it pays abundantly.

“Poochi”.

3. *Leaflets of the Department of Agriculture, Bombay*.

I. *Obtaining good seeds in cholam*. It has been shown by actual experiment in one of the farms that selected big grains used as seed give a better germination and a heavier yield of both grain and straw than unselected seed. The method of selection adopted was

as follows. Good well filled ears were selected in the threshing floor and separately threshed. The seed thus obtained was passed through suitable small sieves 24" × 18" made either of perforated zinc sheets or tin, taking only the big grains and rejecting the rest. The sieve made of zinc sheet is said to cost 10 to 12 annas each whereas a tin one will cost about 6 annas.

II. *Stone roller for the threshing of cholam.* The leaflet recommends the use of small stone rollers drawn by a pair of animals for threshing cholam instead of the usual method of treading under the feet of cattle. Details are given about the construction of the roller and also how it is worked. There is also a good illustration of the roller given. The relative efficiency of threshing by the roller and that by treading of cattle is shown by figures from an actual experiment. Hiring the cattle and coolies the cost of threshing 1000 lbs. of cholam by the ordinary method works out at 17 $\frac{3}{4}$  annas whereas it costs only 2 $\frac{1}{2}$  annas (about  $\frac{1}{4}$ ), to thresh the same quantity by using the roller. The grain threshed by means of the roller has been found to be as sound as that obtained by the ordinary method and could be used for seed purposes as well. The Government Farm in Belgaum district undertakes to get the roller made and supply at the cost price of about Rs. 30 to ryots who order for them.

III. *Chaffing cholam fodder before stacking.* Some of the important advantages claimed by adopting this method are (1) less wastage of fodder when feeding, (2) the stacking does not require any skilled labour and (3) a larger quantity of chaffed fodder can be stacked in a given place than of whole. The leaflet recommends in general the use of chaff cutters either small ones worked by hand-power or big ones that could be worked by engines.

IV. *Making hay with spear grass.* This grass makes good fodder when very young but as soon as the heads develop they become exceedingly injurious to the mouths of the animals which

eat them either in the green or dry condition. For making hay out of this the grass is allowed to mature until it begins to dry and an implement 'Comb' has been devised to remove the heads covered with the spears completely. The leaflet gives details of the construction and working of the comb. The implement can be obtained for Rs. 20 by applying to the superintendent Dharwar Agricultural Station.

K. Ramiah.

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### Extracts.

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#### PICKLY PEAR FOR PAPER PULP.

From an experiment conducted in Mysore, it would seem that prickly pear might be profitably used for paper pulp if the spines and massive flesh could be removed by some cheap and easy method. The remaining fibres produced pulp suitable for paper, when mixed with longer-fibred pulp of some other raw material. (The Wealth of India, February 1918).

T. S. V.

#### INDIAN INDIGO.

One of the most notable war developments of Indian Agriculture has been the revival of the natural indigo industry. With the cessation of supplies of synthetic indigo from Germany, the area under indigo increased from 1,48,400 acres in 1914—15 to 7,56,400 acres in 1916—17. Every effort is being made to give the present revival of the natural dye a permanent character. (The Field, May 4, 1918).

T. S. V.

#### GOAT'S MILK.

The advantages of using goat's milk are:—(1) that the goat eats about one-sixth the quantity of food required by a milch cow; (2) that for nine or ten months it yields 3 to 5 litres of milk which can be safely taken uncooked; because (3) goats are very