

## Agricultural News Letter

**Sea Island Cotton in West Coast:** Cotton stands transplanting and cut stems root freely. This is revealed by trials at Mangalore, Nileshwar and Pattambi. The cuttings and seedlings establish better when transplanted on rainy days. No difference between the seed-planted and transplanted plants was seen in growth.

**Vellai Cholan:** Two new strains of Vellai Cholan, evolved at the Millet Breeding Station, Coimbatore, bearing the station number Co. 12 and Co. 13, have recently been released to the cultivators. Strain Co. 12 is a selection from a variety of Uppam or Mottavellai cholam of Palladam taluk of Coimbatore district. This high yielding strain is of special importance at the present period of food crisis and it also satisfies the long-felt need for a strain of very short duration among the irrigated Vellai cholams. It matures in 85 to 90 days and can be grown in January to April and March to June seasons. This strain has a compact panicle, red glumes and bold chalky white grain. Its short duration is a great asset and it is bound to be popular in areas of limited water resources and also in places where intensive cultivation is practised. This strain has already undergone a series of trials, both at the Millet Breeding Station and in the districts. Its performance has been uniformly good in all the centres of trial. Co. 12 was earlier than the local types by two weeks in Tinnevely district and yielded 19 to 100% more grain than the local. Reports of high yields, ranging from 15 to 56% more grain than the local were received from Coimbatore, Tiruchirapalli and Chittoor districts also.

The strain Co.13 originated from another irrigated variety called Ennavellai Cholan of Gobichettipalayam. It is similar to cholam strain Co. 8 in respect of yield and duration; but differs from it in having bolder grains. This strain meets the demand for a high-yielding strain of Vellai cholam, having a bold grain and a duration of 105 days. It has been tried at the Millet Breeding Station for several years, and high yields exceeding 3,000 lb. per acre have been recorded. In district trials, it was found to be superior to the local types of Gobichettipalayam, giving 15% increased yield of grain. It is proposed to extend the trials of these new strains to other centres of irrigated cholam. Arrangements are being made to multiply the strain at Coimbatore, with a view to supply nucleus seed to bonafide cultivators, who agree to try this in systematic trials, and grow them under seed farm conditions. Cultivators, who wish to try these new strains, are requested to write to the Millet Specialist, Lawley Road P. O. or the Local Agricultural Officers for their requirements.

**Control of Millets Grasshopper Pest:** The millets grasshopper was found occurring as a pest in Rajampeta and Vontimetta areas of Cuddapah district for the last three years. This grasshopper pest not only badly defoliates the cumbu, cholam and tenai sown in the month of June but even attacks the earheads and makes them empty. In the occurrence of this pest in the course of 1948, the fields were left bare in some of the areas and there was nothing left for the ryots to reap. The fodder for cattle was also lost.

**Control measures:** It is necessary that these grasshoppers should be destroyed while still young with green colour and before they become adults with wings. In so destroying the pest, we not only save the crop of the present year but even prevent the pest from laying eggs and carrying itself to the next generation in the following year. For the destruction of the pest in the field, Gammexane D .025 dusting at the rate of 20 to 25 lb. per acre had given spectacular and effective results in the campaign in Cuddapah district. In a short time after dusting, we find the

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young hoppers falling down to the ground in numbers. The insecticide is kept in stock in all the Agricultural Departmental depots for sale to ryots. For use with food crops, pulses, vegetables, and root crops, the Government charges the ryot only half the cost plus incidental charges as a concession to encourage the savings of these crops from insect pests and disease. At this concession rate for dusting cumbu, cholam and tenai crops, it costs about Rs. 4/- per acre and since the average yield per acre of these irrigated crops in the area is 1,500 lbs. per acre, a ryot is sure to save at least half of this, costing Rs. 100/-. There is advantage in killing the pest in its early stage of 'young hoppers'. The planted fields, nurseries, left overs in nurseries and grassy patches round the fields will have to be dusted with Gammexane. Dusting can be done by splashing the insecticide with hand and the Agricultural Department has also some dusters for supply to ryots. During the year 1949, a total area of nearly 1,700 acres in Rajampeta and Vontimetta areas was dusted with Gammexane, ridding these areas of this pest. There was considerable response from the villagers in the areas in adopting the control measure and the relief afforded by the treatment was fully availed of. It is hoped that the ryots in other places, where they have their pest, would report its occurrence to the Agricultural Department and save their crops from this bad pest of cereals.

**Fungicide treatment of seeds:** In recent years, seed-treatment before sowing has been accepted as a regular farm practice, in order to eliminate losses due to seed-borne diseases or soil-borne diseases, which affect the plants in the seedling stage. With the urgent need for greater food production, greater attention must be devoted to seed-treatment, in order to increase the stand and thereby increase the yield. Many seed-borne diseases are prevalent in our food crops, which will respond to seed-treatment. The foot-rot of rice and helminthosporiosis of rice are controlled by treating the grain with organomercury compounds like Agrosan GN or Ceresan. Grain smut of sorghum is easily checked by treating the seed with sulphur powder. Seed dressing with Ceresan or spargon is very useful in preventing damping off and other diseases affecting tomatoes, peas and beans. Sweet potatoes are treated for protection against tuber-borne rots and some soil-borne fungi. Seed ginger is dipped in a dilute solution of mercuric chloride to prevent storage rot. These treatments are comparatively cheap. But some of the chemicals used are poisonous and the materials treated should be used only for sowing and not for food.

**Ratooning of Sugarcane:** Ratooning of sugarcane is becoming a common practice and many ryots ratoon their crop repeatedly three or four times or even more. Their main object in ratooning is to save the cost of preparatory cultivation and the cost of seed. But they generally neglect all the items of cultivation and are satisfied with whatever yield that could be got. This is not correct. Ratoons require more attention than plant crops because (a) the field had no preparatory cultivation and hence initial fertility is low; (b) cane after cane follows and hence there is no rest for the land. (c) there is possibility of carry-over of pests and diseases of previous crop; (d) ratoons are generally of poor vigour in growth in later stages. It is, therefore, essential to take particular care of the ratoons, in order to get higher yields and also to prevent rapid soil deterioration. The following are recommended for ratoons: (a) harvest the plant crop flush to the ground or even one to two inches below the ground; (b) disturb the ridges and furrows by working a light plough. (c) give a heavier dose of manure than to plant crop; (d) remove unthrifty plants by August-September; (e) pull out smutted clumps and burn them. (f) ratoons mature earlier and they may be harvested one or two months earlier than the corresponding plant crops. Ratoons of the different varieties are to be harvested first before plant crops in factory zones, to increase recovery percent.

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## *The Madras Agricultural Journal*

**Sugarcane for water-logged conditions:** Sugarcane is generally grown in rotation with the paddy. Naturally, when sugarcane is sown in rotation with paddy, it is surrounded by paddy crop on all sides, and consequently swampy conditions prevail for sugarcane also. But sugarcane comes up excellently in well-drained soils only and is not quite tolerant to bad drainage. Besides, in the areas adjoining tank-bunds and places, where the water table is high, drainage is inadequate, resulting in water-logged conditions in the fields. Most of the sugarcane varieties fail to thrive satisfactorily under the swamp conditions and it was found after a thorough experimentation at the Sugarcane Research Station, Anakapalle, that Co. 419 is the best variety for such conditions. It is better to plant the cane early i.e., by about the middle of February, so that the crop can make good growth before the advent of the monsoon. When the crop has grown up to some extent, it is able to resist the water-logged conditions better. Canes grown under water-logged conditions mature earlier i.e., by December-January and the recovery of jaggery per cent is more and the quality better. In a series of trials with different varieties conducted at this station, it is noted that Co. 419 is unrivalled in yield under swampy conditions, with an average yield of 38 tons of millable cane per acre, when planted early in February. This yield is less than that from a crop under normal conditions by about 5—8 tons, and this difference is compensated to a certain extent by higher recovery of better quality of jaggery and early harvest and marketing when prices are usually high. Hence Co. 419 is recommended for all soils liable for water-logging during the monsoon and it has to be planted about a month earlier than the normal.

**Hybrid Cumbu Strains:** Two hybrid strains of cumbu X. 1 and X. 2 evolved at the Millet Breeding Station, Coimbatore, have been found to be outstanding in their yield performance in the Coimbatore district. In trials, conducted at Ondipudur, both the hybrids were superior to the local cumbu. These strains X. 1 and X. 2 gave 1,296 lbs. and 1,200 lbs. of grain per acre respectively against an acre yield of 830 lbs. of the local type. The increases in yield were 56% over local in the case of X. 1 and 44.6% of X. 2. These hybrid strains have also done well in the Tiruchirapalli district and they are now being tried in the other districts of the Presidency.

**Livestock improvement:** Eighteen Murrah buffalo bulls and 17 Scindhi bulls were purchased from North India and distributed under the Livestock (bull) Distribution Scheme to the various districts in the Province, for the improvement of Livestock. Government have also sanctioned the opening of a District Livestock Farm in the Malabar district.

## Crop and Trade Reports

### Statistics-Crop-Intermediate Condition-Report Madras Province 1949-50.

**Gingelly.** The gingelly crop has been affected by severe drought in Anantapur district and by insect pest in the district of Bellary during the period of its growth. The yield per acre is expected to be below normal in the districts of Guntur, Bellary, Anantapur, Chingleput and Malabar and normal in the other districts of the Province. The wholesale price of gingelly seed per imperial maund of 82 2/7 lb. as reported from important market centres on 5-11-1949 was Rs. 32-15-0 in Tirunelveli, Rs. 30-12-0 in Eluru, Rs. 30-10-0 in Visakhapatnam, Rs. 30-4-0 in Tiruchirapalli, Rs. 30-2-0 in Kakinada, Rs. 29-12-0 in Rajahmundry, Rs. 29-10-0 in Tuticorin, Rs. 29-5-0 in Cuddalore, Rs. 28-14-0 Vizianagaram and Rs. 28-13-0