

FOODSTUFFS.

TRIALS WITH EARLY TYPE OF PURE LINE PADDY IN KANDY DISTRICT.

W. MOLEGODE.

Agricultural Instructor.

During the Yala season just ended, cultivation operations for which in Harispattu commenced this year in April-May and harvesting of the crop took place in August-September, three types of Economic Botanist's Pure Line paddy of the early or short aged varieties were tried in Harispattu in the paddy area in Katugastota district.

One type H.O.33, a pure line extract of Karuppu Cheenati from the Northern Province, from appearance a cross between Suduheenati and Kaluheenati, gave extraordinary results as compared with local Heenati. Another type H.K.13, a pure line extract of Kaluheenati from Uva, a typical specimen of Kaluheenati—a variety of paddy much valued for its rich rice—gave very satisfactory yields. The third type Hb-8, a pure line extract of Heenati from Sabaragamuwa, another variety of Kaluheenati, failed to make satisfactory growth and the results were disappointing.

The following notes on each type kept at different stages of cultivation are now published for general information.

H.K 13.—Grown at Yatiwawela.

Cultivation methods adopted were similar to those prevailing in the district. Germination and sprouting good. Sown on 11th May, 1925. Growth good. Tillering satisfactory. Flowered earlier than local Heenati. Well formed ear-heads, slightly damaged by flies. Maturing earlier than local paddy cultivated on the same date. Harvested 30th August (crops in the adjoining fields carrying local Heenati harvested 15 days later). Yield per acre $42\frac{1}{2}$ bushels. Average yield of local Heenati on adjoining fields 30—35 bushels per acre.

Hb-8.—Grown at Kondedeniya.

Cultural methods adopted were the same. Germination and sprouting good. Sown on 11th May, 1925. Growth poor. Tillering extremely poor. Flowered unevenly and earlier than adjoining paddy sown at the same time. Slight damage by paddy flies. Height of plants 18-26 inches, compared with 35-42 inches in adjoining fields. Ripening unevenly. When portions were nearly ready for harvesting parts were still green and immature. Harvested 30th August. Yield $10\frac{3}{4}$ bushels per acre.

H.O.33 —Grown in Inigala range.

Cultural methods similar to those prevailing. Germination and sprouting good. Sown on 12th May, 1925. Growth and tillering good. Plants strong and steady—superior to village Heenati. Flowering with the local varieties, *i. e.* early in August. Ear-heads well formed, large and heavy—

striking contrast to village Heenati. Ripening evenly. Height of average plants 52 inches—in adjoining fields 45 and 46 inches. Harvested 14th August. Yield per acre 51 bushels—an extremely good crop compared with yields obtained from local Heenati which in the best case in this range of fields gave 40 bushels this season. Tillering habit of this type was one of the features of the paddy. There were plants with 28, 26, 25 and 23 tillers carrying 23, 22, 22 and 20 well formed ear-heads in each plant respectively. The following are the results compared with the adjoining field sown with local Heenati and treated alike.

<i>H. O. 33.</i>		<i>Local Heenati.</i>
Sown—12th May, 1925		12th May, 1925
Harvested—15th September, 1925		15th September, 1925
Average height of paddy—52 inches		45 inches
„ number of tillers		
per plant 14*		9.3*
„ number of ear-heads		
per plant 10.2		5.1
„ number of grain in		
ear-heads 186		134
Yield per acre 51½ bushels		36¾ bushels
Weight of paddy per bushel 48 lbs.		43½ lbs.

CULTIVATION OF TURMERIC.

Department of Agriculture, Ceylon, Leaflet No. 34

Ceylon imports about 9,000 cwt. of turmeric at a cost of about Rs. 360,000 every year. This can all be grown locally. It grows best on the south-west side of the Island, and can be grown in any soil provided that it is well drained. Manuring with cattle dung increases yields considerably.

Land.—The land should be forked or dug to a depth of not less than 6 inches, and should be free of weeds at the time of planting.

Planting.—Planting is best done with the south-west monsoon. Pieces of the rhizomes should be planted about 3 inches deep, 1 foot apart, in rows 1 to 1½ feet apart. These *setts* should be covered lightly with soil and with a layer of leaves or straw to keep the soil cool and moist. Weeding should be done when required, and the soil should be kept loose by light hoeings. About 1,000 lb. of *setts* are required to plant an acre.

Harvesting.—The crop takes from nine to ten months to mature. It is ready to lift when the leaves and stems have withered and dried. Harvesting should, however, only take place during dry weather.

Curing.—When the rhizomes have been gathered, the adhering earth should be first removed. They should then be put into a vessel, and just sufficient water to cover the roots added. The vessel is placed over a slow burning fire for about two hours, and then the rhizomes are removed and spread out to dry for about a week. The outer skin is removed either by hand or by treading under foot. The turmeric is then ready for the market.

Yields.—A yield of 15,000 lb. of green rhizomes per acre should be secured, and this when cured and dried will weigh about 3,500 lb.

F. A. STOCKDALE,

Director of Agriculture.

Peradeniya, September 10, 1925.

* Worked on 30 plants from each field.

GROW MORE CHILLIES.

Department of Agriculture, Ceylon, Leaflet No. 35

Chillies amounting to about 125,000 cwt. of a value of about Rs. 3,100,000 are annually imported into Ceylon. These could be grown locally, and it should be the endeavour of every one interested in the Colony's agriculture to see that a greater production of chillies is effected.

Land.—Any ordinary well-drained soil will grow chillies. It should be worked up to a depth of 4 to 6 inches and brought into a fine tilth. If the soil is poor it should be manured early with well-decayed cattle dung. Fresh cattle dung should not be applied as the plants will run to leaf and will not yield satisfactorily. A liberal application of ashes is useful and results in bigger crops. Green leaves—especially Keppitiya (*Croton lacciferus*)—is a favourite manure for chillies, and applications always result in larger crops.

Sowing.—In many of the drier parts of Ceylon, chillies are grown in the chena crops. The seeds are sown broadcast with kurakkan, Indian corn, &c., and the chilli plants are later on allowed to mature after the grain crops have been reaped. In other areas—particularly in paddy-growing areas—they are grown as garden crops near to dwelling-houses. In places such as Jaffna, Chilaw, &c., they are grown as separate crops in rotation with tobacco and other crops. If chillies are grown as garden crops, seed should be sown in beds which have been well prepared. The seed should be sown rather thickly in the beds, and these should be shaded from the sun for about a week or ten days. They should be watered night and morning. One pound of seed will give sufficient good plants to plant up one acre of land.

Transplanting.—When the seedlings are about six weeks old, they are fit to transplant. They should be watered before transplanting and then put out in rows $1\frac{1}{2}$ to $2\frac{1}{2}$ feet apart according to the quality of the soil. These seedlings should be shaded for a few days after they have been transplanted, and watered daily, if necessary, until they have become well established.

Cultivation.—Hoe between the rows and keep the gardens well weeded. Earth the plants up slightly when they become well established. Manuring with well-rotted cattle dung and with ashes may be useful if the plants begin to flag.

Harvesting.—The crop begins to ripen fruits about four months after planting out and will continue to yield for two to six months according to rainfall and treatment. The fruit when fully ripe should be gathered and properly dried. Picking should be done about once a week. Yields of 1,000 to 2,000 lb. of dried chillies per acre can be secured.

Curing.—Chillies go bad if they are insufficiently or badly dried. It is important that only ripe fruit be picked, and that they be fully dried in the sun for a period of not less than two weeks before they are stored. When they have been properly dried, they should be sewn up in sacks or matting and kept in a dry place.

IMPORTANT.—*Ceylon chillies are frequently poor in quality. Seed of inferior types has generally been used. Therefore see that seed of only good types is used. Sufficient attention must also be given to proper drying.*

F. A. STOCKDALE,
Director of Agriculture.

Peradeniya, September 10, 1925.

CULTIVATION OF GARLIC.

Department of Agriculture, Ceylon, Leaflet No. 36.

This is a paying crop, but does not grow well in all localities. It can, however, be grown quite well in parts of Uva, Nuwara Eliya District, Kandy District, Matale District, the North-Western Province, and the Southern Province.

Land.—It should be grown as a garden crop, and succeeds best in a well-drained rich soil. This should be manured with well-rotted cattle dung and dug up to a depth of 4 to 6 inches. The land should then be well trampled down and reduced to a fairly fine tilth.

Sowing.—Plant bulbs 6 to 9 inches apart and cover with about 1 to 2 inches of soil. About 750 lb. of bulb are required to plant an acre. Keep the land well weeded, and if the surface soil becomes hard, break it up gently with a small fork or stick. Water every three to four days if there is no rain.

Harvesting.—Crops take about four months to mature. They must, therefore, be planted so that they mature during dry weather. When the leaves begin to turn yellow the crop is ready to harvest. Crops should be lifted carefully, freed of earth, and then thoroughly dried in the sun. Yields of 2,000 to 3,000 lb. of dried garlic per acre can be obtained.

F. A. STOCKDALE,
Director of Agriculture.

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CULTIVATION OF ONIONS.

Department of Agriculture, Ceylon, Leaflet No. 37.

Ceylon imported 394,393 cwt. of onions last year, and these are valued at Rs. 3,156,649. Why not grow these locally and save sending money out of the country?

Land.—Onions grow best in a rich soil, but any land, if it is properly drained and well cultivated will grow onions. The land should be manured with well-rotted cattle dung and dug up to a depth of 4 to 6 inches.

Sowing.—Onions can be grown from seed or from bulbs. In general it is safer in Ceylon to grow onions from bulbs, as seed does not grow well unless it is quite fresh, and beds of seedlings may easily be destroyed by heavy rains. When seed is used, the seed beds must be very carefully prepared and the soil reduced to a fine tilth. The seed beds must be trampled down before sowing as an essential to success in onion growing is that the seed bed should be firm. About 15 lb. of seed is required per acre. The seeds should be sown in drills 6 to 9 inches apart, and the seedlings thinned out as they grow to about 6 to 9 inches apart. Seedlings thus thinned out may be transplanted.

If bulbs are used, these should be planted 6 to 9 inches apart and covered by about 1 to 2 inches of soil. About 750 to 1,000 lb. of bulbs are required per acre, and therefore this method is expensive.

Cultivation.—Onions should be kept free of weeds, and must be watered every three to four days if it does not rain.

Harvesting.—Crops take three months from bulbs and four months from seed. If they are being grown for drying, they must, therefore, be planted so that they mature during dry weather. When the leaves begin to turn yellow the crop is ready to harvest. Onions should be lifted carefully, freed of earth and roots, and then well dried in the sun. If they are not properly dried before they are stored, they will rapidly rot. Yields of 4,000 to 8,000 lb. of dried onions per acre are common, and in planting from bulbs five- to eight-fold can be secured. Heavy yields are only obtained if the land is well cultivated and manured.

F. A. STOCKDALE,
Director of Agriculture.

Peradeniya, September 9, 1925.