

Some Notes on the Cultivation of Cabbage

J. J. NILES

MANAGER, VEGETABLE FARM, MAHAGASTOTA

SUMMARY

SOME notes on the cultivation of the common cabbage (*Brassica oleracea* var. *capitata* Linn) at Nuwara Eliya, are given in general in this article. Three factors which usually confront the cultivator are discussed. These are (a) the use of suckers or seed for propagation, (b) the effects of the severe wind and frost experienced during certain periods, and (c) the incidence of "Cut-worm" infestation.

SUCKERS AND SEED

In Ceylon, two terms are commonly used in reference to this crop: (i) "Seed Cabbage", when raised from seed, and (ii) "Sucker Cabbage", when propagated by suckers. In both these types suckers develop from the stems after the heads have been cut. The formation of such suckers is hastened by making a 1 in. deep down-ward slit across the cut-end of the stems. These shoots, which could also be used as a green vegetable, form more readily in the sucker cabbage. The suckers produced on the seed cabbage stems are not suitable for planting, as they tend to run into leaves and flowers, without forming heads. It is only the suckers of the sucker cabbage that are used for propagation. On the other hand, seeds are more readily produced in the seed cabbage plants; some plants sometimes running into flower even before head formation. It is only the seeds produced after heading in the seed cabbage plants, that should be used for propagation. If the plants show a tendency to run into flower, which occurs especially after a spell of dry weather, the method of making a small vertical slit on the stem, 1 in. above ground level with a pen-knife, and inserting a pebble to keep it open, would act as a check to a certain extent. Of these two types, the sucker cabbage is more commonly grown as it is easier to establish, is comparatively hardier and is free from club-root disease. Further, suckers could be readily obtained, unlike the production of seeds. An additional advantage is that the harvesting of a matured sucker cabbage crop could be delayed, if necessary. If comparatively warm weather prevails suckers do not succeed and only seed cabbage crops are grown.

SEASONAL EFFECTS

A table giving the particulars of the climate of Nuwara Eliya (elevation—6,170 feet), where this crop thrives best, is given in Appendix A. In the Nuwara Eliya District strong winds prevail during June and July and

with less severity in August and September. During these months, and particularly in the earlier part, the crops in the field suffer a considerable set-back. Growth is impeded and the formation of heads is delayed. The June/July winds are too severe for any plants to survive, unless they are on the leeward side of a hill or are heavily protected by wind-belts. However, no cultivator can afford to gamble by having a crop in the field at this time. The nurseries of the seed cabbage crops are advisedly sown towards the end of the windy season and the seedlings are planted out as early as possible, so that the crop can be marketed before the glut in early October. If direct wind prevails during transplanting, small twigs staked on the leeward side, as a support, would help the young plants to establish themselves more quickly and also prevent the tender stems from snapping. Grown-up plants could be protected by earthing-up. Sucker cabbage crops of 5-6 months duration, if planted out in April, would be sufficiently established to come through the windy season, and would meet the demands of the early market in September.

Another period when the climate has an adverse effect on the crop is in late January and February, when frost prevails during certain days leading to the scorching of the leaves. Frost also adversely affects transplanted seedlings when only a few weeks old, or older plants that are about to form heads. It is thus advisable to adjust the planting time so that these stages of the crop are avoided during this period. November is an ideal month for planting, so that the crops could be gathered in early January. On days when there is frost it is advantageous to water the plants very early in the morning, with a view of washing it down, before the ill-effects of the sun's rays set on it. Another practice that could be easily adopted to ward off such adverse effects of frost is to burn rubbish in heaps during the nights, so that the smoke sweeps over the planted area.

CUT-WORM

It has been found that fixing tin-collars over each plant is a very effective preventive measure against this pest. Open cigarette tins, the bottoms of which have been removed, serve the purpose. These tin-collars should be kept on as long as possible, until such time that it becomes difficult to slip the tins over the leaves and to remove them without damage. These tins should be periodically removed and the enclosed soil examined at intervals, depending on the incidence of the pest.

A decoction made from the leaves of the herbaceous plant *Lobelia nicotianaeifolia*, found very commonly in the waste areas in the hills, has been found to be satisfactorily effective against this pest. The decoction is made by soaking for 10 days, 20 lb. of the leaves in 40 gallons of water with the addition of 1 lb. of common salt. The decoction could be applied with a watering can at the rate of 2 gallons per 100 sq. ft. The same leaves could be used again a second time by the addition of water and allowing it to stand for 7-10 days. For further use fresh leaves are required. It is necessary to apply the decoction regularly in order to keep the pest under control. This treatment will not need any additional expenditure during periods when the plants are normally watered.

APPENDIX A

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Year
Average rainfall	6.95"	2.03"	4.09"	5.01"	8.47"	10.44"	10.98"	7.51"	8.23"	9.73"	9.20"	7.84"	90.48"
Average rain days (days for which at least .01" is recorded)	14	7	11	15	18	25	24	22	20	22	22	17	217
Average wet days (days for which at least .04" is recorded)	12	5	9	12	15	22	21	19	16	20	19	14	184
Average mean maximum temperatures	67.9°	69.6°	70.8°	71.3°	70.4°	65.8°	65.3°	66.2°	66.9°	67.6°	67.6°	67.8°	68.1°
Average mean minimum temperatures	46.3°	45.1°	46.2°	49.8°	53.3°	55.6°	54.8°	54.2°	53.1°	52.0°	51.6°	48.7°	50.9°
Average mean tempe- ratures	57.1°	57.3°	58.5°	60.6°	61.9°	60.7°	60.1°	60.2°	60.0°	59.8°	59.6°	58.3°	59.5°
Humidity—Day (1947)	80%	72%	80%	80%	80%	84%	80%	86%	80%	80%	75%	82%	79.9%
Humidity—Night (from minimum) (1947)	87%	85%	87%	91%	93%	85%	85%	91%	82%	87%	86%	87%	87.1%
Amount of Cloud (1947)	8.0	5.5	6.8	7.4	7.0	9.4	7.9	9.4	9.0	8.0	6.0	7.6	7.7