

Individual varieties have given much heavier crops. Varieties that have given best results are: Mangolds—Prizewinner, White Sugar, and Red Intermediate; carrots—Matchless White and Sinclair's Champion; turnips—Red Paragon, Hardy, and Imperial Green Globe; swedes—Vilmorin's White Purple-top, Grandmaster, and Superlative.

Each year it is becoming more difficult to grow swedes owing to the ravages of dry-rot and club-root, and unless there is an improvement it will not be long before the growing of swedes is discontinued. A number of new varieties are tested each year, and so far Vilmorin's White Purple-top stands out as a rot-resister, but unfortunately supplies of seed are not available at present.

#### GREEN CROPS.

Mixtures of cereals and tares or peas are grown from time to time, mostly for hay. In view, however, of the difficulty of growing soft turnips, various varieties of peas for feeding green in the autumn are being tested.

#### LUCERNE.

Owing to the heavy average rainfall experienced at Stratford lucerne does not do its best there, it being difficult to keep stands free from grass and weeds. A small test area was sown in January, 1921, part with manure and part without; various systems of sowing were also adopted. The following table, giving the green weight yields of six cuts, from 1921 to 1924, presents several features of interest. The manure consisted of basic slag at 3 cwt. per acre applied at time of sowing. The area was also limed, one-half with carbonate at 12 cwt., and the other half with burnt lime at 6 cwt., per acre, but no difference is noticeable between these two parts.

Date of Cuts.	21 in. Drills. No Manure.	21 in. Drills. Manure.	14 in. Drills. No Manure.	14 in. Drills. Manure.	7 in. Drills. No Manure.	7 in. Drills. Manure.	Broadcast. Manure.
<i>Grimm Variety.</i>							
	T. c. lb.	T. c. lb.	T. c. lb.	T. c. lb.	T. c. lb.	T. c. lb.	T. c. lb.
21/11/21 ..	..	4 19 96	..	..	..	..	..
13/1/22 ..	..	5 2 96	..	..	..	..	..
18/1/23 ..	..	6 15 0	..	..	..	..	..
19/3/23 ..	..	3 17 0	..	..	..	..	..
23/11/23 ..	..	5 2 84	..	..	..	..	..
14/1/24 ..	..	3 4 28	..	..	..	..	..
Total weight per acre (green)	..	29 1 80	..	..	..	..	..
<i>Marlborough Variety.</i>							
	T. c. lb.	T. c. lb.	T. c. lb.	T. c. lb.	T. c. lb.	T. c. lb.	T. c. lb.
21/11/21 ..	5 2 72	5 12 56	5 19 0	6 8 64	4 16 38	6 15 0	4 16 0
13/1/22 ..	5 12 56	5 19 0	5 9 32	7 1 48	4 10 0	9 0 0	4 19 72
18/1/23 ..	7 7 84	8 3 84	6 18 0	8 16 84	7 7 84	11 11 28	6 8 56
19/3/23 ..	4 13 0	5 2 84	3 10 56	5 2 84	4 0 28	5 9 28	3 10 56
23/11/23 ..	4 16 28	5 9 28	6 2 0	6 15 0	4 3 56	7 7 84	5 6 0
14/1/24 ..	3 10 56	4 10 0	4 3 0	4 16 28	3 1 0	3 6 0	3 4 28
Total weights per acre (green)	31 2 72	34 17 28	32 1 88	39 0 84	27 18 94	43 9 28	28 4 100

Total for three manured areas, 117 tons 7 cwt. 28 lb.; total for three non-manured areas, 91 tons 3 cwt. 30 lb.: difference in favour of manure, 26 tons 3 cwt. 110 lb., or 29.34 per cent.

It will be noticed that the method of 7 in. drills, and manuring according to the Department's recommendations, resulted in the heaviest