

## Factors Influencing Yields

In wet districts it is usual for roots to have a lower dry-matter content than in drier districts. Again, soil fertility, stage of maturity, and the variety all have an effect on dry-matter yields. From the practical point of view, best returns are obtained from fully-matured crops grown in not over-wet soils.

## Mangolds

If suitably grown, mangolds will out-yield practically any other farm crop. Their added virtues are their keeping qualities, especially if "pitted" or "clamped," and their high favour with livestock. The Yellow Globe and Tankard varieties are perhaps the more generally suitable, particularly as they grow wholly or partly above ground and are less likely to be checked by weeds in the later stages of growth. Yields of 40 tons or more per acre are not uncommon.

Mangolds are, however, low in protein and lime, a factor which adds to the need for feeding them along with other supplements of higher protein content. While turnips and swedes are suitable for early season feeding, mangolds may be used throughout the winter to early spring.

## Swedes and Turnips

The swede and turnip crops are widely favoured for pig feeding. Swedes have a dry-content of approximately 11.5 per cent. and turnips 8.5 per cent. A 35-ton crop of swedes will thus provide about 80 cwt. of dry-matter per acre, and turnips 59 cwt. From the feeding point of view, swedes are the better, and they are also considerably richer in protein. Although slower to mature than turnips, swedes are better keepers, and can be fed in the later season.

## Carrots

Carrots are not so extensively grown as swedes, although they, too, are of excellent feeding value. The attention and labour necessary to ensure high crop yields, together with the difficulty of lifting the deeply-rooted varieties, are prejudicial to their more widespread usage for pigs.

The carrot has a dry-matter analysis of 13 per cent., and an average 35-ton crop would yield 91 cwt. dry-matter

per acre. While higher in dry-matter than swedes, carrots are slightly lower in protein value. If clamped, they keep well.

## Sugar Beet

Sugar beet is increasing in favour, and contains approximately 23 per cent. dry-matter, of which 16 to 17 per cent. is sugar. Excellent feeding results have been obtained with the crop, but unless climatic and soil conditions are particularly suitable it will probably pay best to grow mangolds.

A 20-ton crop of sugar beet will produce 92 cwt. dry-matter per acre. Sugar beet, if clamped, will keep as well as, if not better than, mangolds, and is eagerly sought after by stock.

## Potatoes

If grown specially for pigs, potatoes compare unfavourably in production costs with the crops already described. In Canterbury, where practically 60 per cent. of the Dominion's potatoes are grown, about 15 per cent. of the tubers are selected for seed, leaving 10 per cent. for pig feeding. In years when potatoes are cheap the "chats" can be profitably bought for this purpose.

The potato is rich in carbohydrate, and has a dry-matter content of 25 per cent., of which 18 per cent. is carbohydrate. The average New Zealand yield is 5 tons per acre, although considerably higher yields than this are often obtainable.

## Artichokes

The artichoke is an excellent pig crop, especially if the tubers are planted in an otherwise unused corner where they can be left to grow over a period of years. They must not be fed until the tops have died down, and then only with discretion; otherwise no "seed" will be left for succeeding year's crop.

Artichokes have a dry-matter content of approximately 20 per cent., and yield about 12 tons per acre. They are a palatable and nutritious feed.

## Pumpkins and Stock Melons

In the warmer districts pumpkins and stock melons will be a valuable addition to root crops. They are of high feeding value. Their dry-matter content is about 15 per cent., and while yields per acre are often matters of debate, an average figure is 35 tons. They can be grown through maize, although the highest yields are obtained when they are grown as a special crop.

It is not proposed to discuss the growing of cereal crops, peas, or maize specially for pigs. Peas are nevertheless one of the most valued of leguminous crops for feeding with roots because of their high protein content. The time-old adage, "It is not always wise to have all your eggs in the one basket," still holds in growing root crops for pigs. Several suitable crops are usually to be preferred to the whole area in the one crop. Again, the value of green feed, particularly in the form of pasture or young lucerne, must not be overlooked. It has been estimated that pasture can supply up to 15 per cent. of the pig's feed requirements; therefore, good clover-ryegrass swards are of material advantage.

Finally, however, it should be borne in mind that pigs are most profitable where quick live-weight gains can be made. This necessitates the wise feeding of a suitably-balanced ration, including pasture, roots, and concentrates, with any other cheap or waste feedstuffs available.

(Registered pursuant to the Stock Remedies Act, 1934.)

## HAMILTON VACCINE for MAMMITIS

Whole Herd Policy of four inoculations:—

Vaccine costs 2/- per cow for twelve months, including free vaccine to follow up infected cows. Syringe costs 12/6, needles 1/6 each.

For further particulars write:—

## HAMILTON VACCINE CO. LTD.

P.O. Box 181 — HAMILTON, N.Z. — P.O. Box 181  
FRED PRATT, Manager.