

# THE ILLUSTRATED JOURNAL OF AGRICULTURE

PUBLISHED BY THE DEPARTMENT OF AGRICULTURE FOR THE PROVINCE OF QUEBEC.

Vol. I.

MONTREAL, MARCH 1880.

No. 11.

## FALLOW CROPS,

*Swedes, Turnips, Kohl-Rabi, Cabbages.*

The sowing of Swedes may be said to begin by the middle of May, and continue until the first of July; after which either white turnips should take their place, (the yellow Aberdens are seldom profitable) or late cabbages.

Of the sorts, now very numerous, the best is, the *purple-top*, *Brassica campestris*, *napo-brassica*, *rutabaga*, of DeCandolle. I have always found the *Bangholm* yield well; and as for solidity and keeping qualities it is worthy of all confidence. There is one remarkable property in this sort which distinguishes it from all other turnips: whereas a large white turnip is always spongy, and inferior in quality, a swede cannot be too large. The fact is, it is not a turnip at all, though commonly called so. It is a cabbage with an enlarged stem, as may be easily seen on examination of the rudimentary leaves, which are rough in the turnip, but smooth in the swede. The trivial name among the French-Canadians is much more correct in fact, so is the common Township appellation: *Chou de Siam*, in the one case, *Rutabaga*, in the other. Why, *Sium*, I never could make out: *Chou de Lapone*, is much nearer the mark. We have so lately gone over the various operations connected with the preparation of the land for root crops in general, that, if you please, we will suppose them finished, and the dung ready to be carted out.

And here arises a question. Shall we sow on the drill, or on the flat? As the improved cultivation of this country, particularly in this province, is principally due to the Scotch and Irish settlers, it is not wonderful that all our root-crops appear to be cultivated on the drill system. In the damp climates of Scotland and Ireland it is certain that this is the only plan that can succeed; and for this reason: the grain crops are late to harvest; there is therefore no time to clean the stubbles; the couch-grass (*triticum repens*) obtains great hold on the land, and would occupy the whole surface, were it not for the opportunity which the raised form of the drills affords of eradicating this pest during the growth of the crop. Again, the very small supplies of manure procurable in past times on most farms rendered it necessary to apply what there was in the most economical manner, in order to promote the growth of the actual crop, without regarding the succeeding one.

Our climate, however, is very different. It is not the excess of moisture that we have to dread, but the excess of heat. Couch-grass is very easily got rid of; the autumn, or the spring ploughing reversed will settle it, if a little careful harrowing follow. As for the question of manure, it is to be hoped that, before another year expires, pulverised phosphate of lime will be so cheap in Canada that there will be no difficulty from that source.

Now I think, these two objections being disposed of, it will be apparent, to any one who will patiently and without prejudice, consider the question, that, in a climate like ours,

flat culture should be preferable to sowing on the raised drill. In the South-Eastern parts of England this system has been successfully followed out for many years. On the majority of the farms on the Chalk it is invariably practised, and for two reasons: there is seldom enough depth of earth to form drills, and if there were, the innumerable flint stones would hinder the machine from being used to deposit the seed in rows, consequently it is sown by the hand, and no horse implement is used for its after cultivation.

You will not suppose for a moment that I wish to recommend this mode of treatment on our soils. Far from it, it is only advisable where no other system can be pursued. But I have remarked that, when a hot summer occurs, (and in that S. E. corner of the island we do have, sometimes, a very hot summer) the flat-sown turnips grow more freely from the first start, continue to grow more freely during the season, and are invariably freer from our great enemy, mildew, than those in their immediate neighbourhood which have been sown on the raised drill.

This mildew seems to be caused by a cessation of growth. The leaves flag in the middle of the day, there is an apparent bluish look about them; and, when the root is cut into, the flesh will be found converted into woody fibre. Hence our Southern swedes are so inferior in quality, that they are incapable of doing any thing more than keep sheep and cattle thriving. Fat them they won't. The injury is more mechanical than anything else; the roots are stringy (*cordées*). That the defect is in the climate, and not in the soil, is certain from the following considerations. All along the Sussex coast towards the East stretches a line of chalk hills, sloping gently down towards the sea. At the bottom of these hills lies a flat space, varying from one mile to a mile and a half wide. On this latter soil the turnips never mildew, and, in quality, equal those of Scotland, whilst the swedes grown on the upland are as coarse as usual. Why? The sea-fog hardly ever allows the moisture on the lower land to evaporate, and the growth is constant from germination to harvest.

Now I think it would be advisable to try in our climate this one experiment fully, recollecting that a bulky crop of inferior roots occupies more room in our by no means extensive cellars, and is much more costly to draw, top and tail, and carry home, than a smaller crop of sound, succulent ones.

Spread what dung you can spare broadcast, and plough it carefully in. Harrow with light harrows to avoid pulling out the manure, and, when the top is sufficiently fine, sow the bone-dust, superphosphate, or any other artificial manure you prefer, and, giving one stroke of the harrows, finish the job by passing a light roller over the whole.

The seed can be sown, with perfect ease and regularity, by any of those useful little garden drills which are now so cheap and satisfactory.

I cannot recommend less than 3 lbs. of swede seed, and 2 lbs. of turnip seed, per acre. It seems monstrous indeed, when we consider that, if 19,360 plants of Swedes occupy one acre