

said to be very hard, and the fat also to waste in cooking. Common practice, indeed, has settled, that the cereal grains—barley, oats, &c.—with their low percentage of nitrogenous compounds, constitute in the long run the staple food of the fattening pig; and the whole of the results of the experiments detailed in this paper bear testimony in favour of the correctness of this decision." Another instance, by the bye, of practice having proceeded scientific investigation; for many years before Lawes was born, it had been the custom of English farmers to fatten their bacon-hogs on barley-meal and skim-milk, and to finish them off on pease; a practice which the experiments of Sir John Lawes show to be founded on sound principles.

The composition of the pea is this:

(a) Water..... 14.5
Albuminoids. 20.2
Carbohydrates 55.4
Fat 1.7

(b) Nutritive ratio. 2:9
Value per 100 lbs.. \$1.44
Compared with } \$2.25
meadow hay...1 }

In the above table, b, the value per hundred pounds — \$1.44 — must be taken for what it is worth. The calculation is from an American publication (Stewart on feeding), and is founded on timothy hay at \$21.80 a ton! I really cannot make anything useful out of the columns on columns of figures given in the new system of values of feeding-stuffs. For example: according to table b, pease are worth, first, \$23.80 a ton; but, as compared with meadow-hay, they represent a value of \$2.25; now, meadow-hay is put in the tables at 64c per 100 lbs. = \$12.80 a ton, ergo, pease should be worth \$12.80 x .25 = \$17.80 a ton. Now, I buy my pease—famous soup-pease too — at \$23.00 a ton, and best timothy at \$6.66, so the tables only succeed in perfectly stupefying me.

Sowing pease.—Like every other farm-plant, pease in my days were always sown broadcast. But early in the thirties, the practice of drilling them began to obtain in the south of England, though as late even as 1853, I saw farmers in Shropshire broadcasting their pease. We used to set them about 27 inches apart, and sowed thickly—about 3 bushels to the acre. As soon as they were up, the harrows were passed across the rows, they were then edge-hoed, once—a man got over about an acre a day—and the horse-hoe was kept at work until the pease "shook hands," when a single row of rape was drilled between each two rows of pease, a light dressing of bone-dust or of superphosphate (later) being hand-sown with the rape. This was for sheep-feed, after the crop was carried, and was of great benefit to the land, particularly the lighter land, on which wheat hardly ever succeeds after pease without a sheep folding. After the removal of the pea-crop, the spaces between the rows of rape, where the pease had stood, were horse-hoed once or twice, and the land was left as clean as a garden, and in beautiful tilth. Where land is managed thus, and the season is not too wet, there need be no fear of the results. There used to be in Kent a small machine attached to a one wheeled plough, by means of which beans or pease could be deposited at the bottom of the furrows; in practice, this was set to sow every third furrow, and thus, as the plough turned over a width of 9 inches in its passage, the rows of pease were at the proper distance of 27 inches.

The land should be as carefully prepared for a pea-crop as for any other. An autumn ploughing, well grubbed and harrowed, and the seed deposited 2½ or 3 inches deep, will be found to answer. My neighbour, Mr. Lavallée, ploughed in his pease last spring, and was well pleased with the result. I shall sow my pease with a single row (Mathews) garden drill, 27 apart—a man, if the land is in good state, will get over 2½ acres a day—and horse-hoe them as usual. I want to know this: You sow your beans in rows and hoe them, why not treat pease in the same way? If the quantity of seed per acre were increased, there would not be so many complaints of pease not podding. If I have time, I mean to try an acre drilled up as for mangels, sow the three bushels of pease broadcast, and cover them in with a single tine of the harrows.

Harvesting pease.—Whether broadcast or drilled the cutting may be done with a short-bladed scythe better than with one of the ordinary length. The old fashioned Hainault scythe answers capitally for this purpose. When dried enough, they are rolled up in bundles, bound with a drawn-out wisp of their own straw, and carried home to the barn or stack.

Canadians often mixed a few pease with their oats for seed. In England, it used to be the fashion too, but is no longer; the crop was called *maslin*, quasi *meslin*, i. e. *mélange*, from the French *mélér* to mix—formerly spelled, *mesler*. Here it is called *gabourage*, or, nearer Quebec, *goudriole* both of which words are undervivable by me, which is a bore.

Podding-pease, as we call them in England, are, of course, pease intended for the table. These must be sown in succession, that is to say, one early and one second early kind put in on the same day to start with, and then sowings made every fortnight or so up to the middle of June, after which time, pease are rather apt to mildew before they are fit to eat. Best sorts to sow are:

- { Bliss' *American Wonder* — quality good—a foot high;
- { Maclean's *Advancer*, ten days later than the A. W.
- { Carter's *Stratagem*—Such pods! succeeds *Advancer*.

As we remarked in February number, no good table-pease ever reach the Montreal market. This is, in part, due to the careless way in which they are gathered and packed. Pease should be gathered when young, and kept out of the sun as soon as picked; baskets are far better than sacks to pack them in, and over the top of the pease, as soon as the baskets are filled, should be placed a layer of fern, or some light thing of that sort; not fresh grass, as that would disrobe the top layer of pease.

All pod bearing plants are benefited by a dressing of plaster; in fact, we should never sow pease, beans (horse or haricot), tares, or the clovers, without a good coat of this manure on the young plant. And we should not stint it to a bushel — an *arpen*, but boldly put on such a dose as M. Villa recommends, namely, from 300 to 400 pounds an acre.

The American Wonder may be sown at 24 inches between the rows; the others at, say, 27 to 30 inches; both kinds to be horse- and hand-hoed. Seed for an acre must depend upon the size of the pea: the two earlies are small and would take from 2½ to 2¾ bushels; the *stratagem* should have 3 bushels; ½ less of course to the *arpen*. We have

grown lots of pease for stock and for the table, and never sowed one acre broadcast in our life. Remember that a thick sown crop always ripens at least a week sooner than a thin sown crop, the date of sowing being the same.

If farmyard dung is to be applied to the land for the pease-crop, it is always better to plough it in the previous autumn.

As soon as the pease are marketed, grab the land, cart off the rubbish, give a light furrow, and sow 6 lbs. of rape to the acre broadcast. Turnips might be grown, but as they would come to the hoe in the middle of harvest, rape would be less troublesome as it requires no work at all from the day it is sown to the time it is consumed by the sheep. It is really too tiresome that people will not see that this is the greatest blessing to the Canadian farmer: a crop that requires no labour and yet will fatten ten sheep to the acre. Why, it is made on purpose for the poor farmer who cannot find money to pay for labour.

Mangels.—It will be seen from the following that the cultivation of roots has not made much progress in the States:

"Arc mangel beets injurious?"—I am a reader of your valuable paper and would like to ask through your paper if mangel beets would in any way harm or injure a cow giving milk, if not fed more than one bushel per day? Bryant, S. D. C. C. O.

A bushel of mangels is supposed to weigh about 50 pounds, of which 90% is water. This would leave only 5 lbs. of solid matter, not enough, of itself, to produce any bad effects. We should not care to feed so much bulk for so little nutriment, and it is possible that that may be some properties in the mangels which would make such large quantities of them objectionable. Never having fed them in this way we cannot speak from experience."

Mangels, as every one who grows them knows, ought not to be used till all the other roots have been consumed; not that young mangels are by any means injurious to stock, but because this root keeps its quality better than any other. By April, a good deal of the water has evaporated, and it has taken nothing nutritious with it. As we have often said in this periodical, the effect of feeding stock on roots is not by any means dependent on their chemical analysis.

"Clover Silage.—Can clover be preserved in the silo for feeding during July and August? If so, how should it be handled? We have red clover, and have also a field of Crimson sown last fall that promises a good growth this spring. Which will make the better ensilage? What has been experience in preserving green oats in the silo for feeding sheep during the early winter? Can it be successfully done, and how should the crop be handled? Or would it be better to fill the silo with corn? We should wish to use the ensilage in connection with a grain ration. R. Morris, Ill. [It is difficult, though not impossible, to preserve clover in the silo, and hence this method of caring for it has been almost entirely abandoned, and the same may be said of oats. Both are so easily cured, and so palatable either fresh or cured, that little would be gained by ensiling them. It would be far better to fill the silo with corn, curing the clover and oats. There will be no difficulty in keeping corn ensilage properly put away over into July and

August. But may it not be better to feed green oats and second growth clover in the open pasture at this time of year, rather than to cure it and save it for winter feeding, the very time when the ensilage should be used?]

Well, it is neither difficult nor impossible to preserve clover in a silo: *ecce signum*: Report of the Committee on silage-samples; Dairymen's Ass. Meeting, Sorel, 1890.

"After examining 5 samples of corn-silage, we found that M. J. Damien Leclair's sample of clover-silage was perfect! It contains much more nutriment than either of the 5 preceding samples. Its only defect is that it was not chaffed before ensiling."

We have always held that clover would make better silage than corn, if properly cut and packed; and the weight per acre, if the clover were mown thrice, say, in early June, August, and late September, would be nearly, if not quite, as great as the weight of a crop of silage-corn.

Flax.—If you are going to grow flax, you must not raise your expectations too high. Fine flax, i. e., fine fibre, demands very thick sowing—not less than 2½ bushels an acre—and gives but a poor yield of seed. We have grown it in England and succeeded well: our system we will describe next month. One thing must not be forgotten: *Sugar beets* and *flax* being crops that are usually sold clean off the farm, will, in combination with the export of the *cheese*, leave the farm pretty well exhausted unless manure is brought back to supply their place. The retention of the linseed will lessen the detriment, of course, but it is a tempting thing to sell.

Fresh vs. rotted dung.—Fresh dung is full of the seeds of weeds, rotted dung if properly worked at a sufficient temperature, has the seeds, but in an effete state.

Spring lambs.—March 12th, spring lambs sold for from \$2.50 to \$5.00 a head. Two years ago the best were selling for \$7.50. Eggs are down to 17 to 18 cts for fresh! *Ten calves* fetched \$9.50 the lot.

Canada cheese.—Mr. Everett, a well known factory proprietor, of Boston Corners, near Brockville, says that "Canada cheese is the best in the world, and the can produce just as good butter as cheese." *Finest English Cheddar*, Feb. 25th, is quoted at 70s to 72s; *Canadian do.* 60s!

Sacaline.—This new forage plant, from Siberia, is said to be a marvel; yields from 90 to 180 tons to the acre; 12 feet of growth by June; cattle cannot destroy it as the roots penetrate too deeply into the soil; equally productive on windy knolls and in swamps.

ANALYSIS.

Water.....	36.00 %
Organic nitrogenous matter.....	19.06 "
Fat.....	4.4 "
Non-nitrogenous extract....	24.64 "
Minerals.....	7.4 "
Phosphoric acid.....	1.57 "

"Sacaline is a new forage plant now being "boomed" by the seedsmen. We advise our readers to touch it lightly, if at all. Rural Life says of it: "There has been considerable agitation recently in regard to this alleged new