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The covering of any cereal with the harrow is now condemned by some agriculturists. They admit that the harrow pulverizes the soil for a depth of two or three inches, thus benefiting it for the germination of the seed and the earliest stage of the growth of plants. They say, however, that owing to the shape of the teeth its action is very deficient, continually packing the soil, and therefore not benefiting the plant later in its growth when the roots require a considerable depth of soil. The cultivator is considered an improvement on the harrow, as the teeth from their peculiar form raise up instead of crushing and compacting the earth.

Oats are sown mixed with peas for soiling, and for that purpose there is no better crop. The yield is abundant. Sown together they yield the heavier produce, each of them requiring somewhat different plant food, and the pea drawing from the atmosphere a greater portion of its nutriment than from the soil. This greater amount of ammonia and of moisture aids the growth of the oat plants, which, growing strong and upright, afford a support for the pea vines that catch with their tendrils anything they can lay hold of. It is said that one acre sown with oats and peas, sown together, will produce nearly as heavy a crop as two acres sown separately, one with each. They are also a much better food for stock than either would be if fed by itself. When cut early a second cutting may be had. It is good food for all farm stock, and for milch cows especially it is very valuable.

**Spring Crops—Peas.**

This is usually the first sown of our spring crops, as it is less liable to be injuriously affected by early sowing than any other cereal. And there is an advantage in sowing peas early—early sowing as a general rule implies early harvesting, and the plough may be started at once in the pea-stubbles when the crop is removed—sometimes in time for a crop of late turnips, or, if not, to prepare the land by an autumn fallow for a succeeding crop. Let us not forget, however, in the haste of our spring sowing that all seeds, even peas, are liable to perish in the soil if they be sown before it has acquired some degree of warmth. Peas are often sown on land that has been quite exhausted by growing grain, and then has been merely scratched over. Even with this treatment they sometimes yield good crops. But if it be worth the farmer's while, by such haphazard cultivation, to take the chance of poor crops, it would surely be better to ensure, as far as in his power, heavier yield of a better quality. Pea soil should be mellow, and moderately fertile. If it be not so naturally, it can be made so by cultivation. Though generally sown broadcast in Canada, the drilling of peas would, we have no doubt, be as profitable as the drilling of wheat. It has been found so in England. There the land for pea crop is ploughed lightly in autumn, then in spring made loose and mellow by the cultivator, and the peas sown in drills from fifteen to eighteen inches apart, permitting the subsequent use of a partial summer fallow, and weeds, the farmer's great foes, are conquered. Besides, the crop itself is benefitted by the hoeing, and by the greater influence of the atmosphere on the growing and maturing crop. The difficulty of covering the seed properly is known to all who have sown peas broadcast. This difficulty is obviated by drill-sowing; by this the seed is all sown at an equal depth and covered evenly. This in itself is no little advantage. As the frequent hoeing of the soil between the rows of peas is a means of attracting atmospheric nutriment more than the soil would receive otherwise, drill culture must add to the improvement of the soil more still than would be derived from the pea crop sown broadcast. Another advantage of drill-culture is the destruc-

tion of weeds. The weevil has of late years been so injurious to the pea as to prevent many from sowing this very beneficial crop. To save peas from the bugs it is well to feed them to the fattening hogs early in the autumn before they have begun their ravages.

**Seeding Clover.**

There is no crop of which there are more frequent complaints of failure than the clover. When to sow it, and in what manner so as to obtain a good stand, is a subject of constant enquiry. Sometimes a catch has not been obtained; at other times, after it had germinated well and given good promise, the young plants have been killed by the spring frosts. This is frequently the case when the old method has been followed of sowing clover seed on fall wheat before the last snow melts. This method of seeding with clover may succeed; it sometimes does, but it is very uncertain. If the season suit it, we may expect a good return; with an unpropitious season it is a dead failure. The English method of sowing with spring grain is attended with less risk of a failure. The spring frosts are less apt to injure the tender plants, the soil being in better condition to nourish them. The plan we adopted was to sow the clover seed after the barley had been covered with the harrow; then cover it lightly with a seed harrow having short fine pins, and then to roll the ground. We sowed a field of clover seed year after year without any failures. The soil had always been prepared for the barley seeding—enriched and well cultivated, and consequently in prime condition for the clover seed. Some farmers sow too little seed to the acre. They seem not to be fully aware of the real importance of thick sowing of clover seed. We would not think of sowing less than ten pounds of clover seed to the acre, with Timothy seed or other small seeds—say five pounds. With that seeding we would expect plants enough to keep down the weeds, to bear a large cutting for soiling or hay, and to enrich the ground highly with the abundance of taproots. Remember—the farmer who sows sparingly receives corresponding returns.

**Onions—Their Culture.**

The culture of onions differs materially from that of most other crops, and especially of such plants as are tap-rooted. While for nearly all other plants a deeply cultivated soil is desirable, and, for some, necessary, no such deep cultivation is needed for a good onion crop, as it takes its nourishment from the surface soil. This, however, requires to be rich, as the plant is a great feeder, its many roots branching out on every side and feeding on every particle of soil within their reach. Dig the ground as early in the spring as its state will permit. Manure it heavily with good, well-rotted manure; with spade and hoo make it quite mellow and fine; level it smooth; then draw shallow drills about 15 inches apart, leaving after every third or fourth drill an alley in which you can walk when hoeing and weeding. In these drills drop the seed carefully. Hoeing and weeding complete the cultivation. In thinning leave about one onion to the inch.

Harvesting takes place in August, sometimes a couple of weeks later. As soon as the tops fall and become brown, pull and put into windrows, three rows in each. In a few days they will be dry enough to take into a barn floor or loft.

The following varieties, from which a good selection can be made, are all recommended:—Large Red Wetherfield, a heavy cropper and good keeper, good for general use, though not so mild in flavour as some others.

Danver's Yellow, an early onion, an abundant

producer and excellent keeper. Is in demand for the late season.

White Portugal or Silver-Skinned, a large onion, ripening early, of mild flavour and handsome appearance. It is not, however, a good keeper.

Besides the above, there are some new varieties highly spoken of—the Bedfordshire Champion, Nuneham Park, New Queen, Giant Rocca of Naples, and Large Red Italian. From 200 to 600 bushels per acre have been raised of onions. The English potato onion is an excellent variety; it matures early, yields a heavy produce, and is of a mild flavor. The onion-bulb, not seed—is planted in rows 3 inches deep, the bulbs further apart than bulbs from seed would be, and clustered around the bulbs grow out a number of young onions. Hoe between the rows and keep free from weeds.

Top Onion or Tree Onion. This variety shoots up a stem, on it grows small seeds or buds. These small bulbs or seeds are saved till the following spring, when they are planted as other onion seed, but slightly deeper. They produce large onions. They are not so much esteemed as other onions, as they are said not to keep so well, though we have kept top onions, the white variety, good during the whole season.

**Canada at the Exhibition in New South Wales.**

In the Report of the Department of Agriculture there is reference to the expected representation of Canada at the Exhibition to be held in April in New South Wales. The goods sent were in all 890 cubic tons from the Dominion. These exhibits are not to be returned, but will be sold for what they will bring.

**Hints to Dairymen, No. 14.**

Written for the Farmers' Advocate, by J. Seabury.

There are several pretty strong arguments in favor of butter-making on the factory principle which it would be no harm to discuss; for every patron and factory-man should give these things his careful consideration and study, and be able to give his opinion on the subject. In the first place butter made in that way will be very much enhanced in value, and will command the attention of direct shippers, and will go directly into their hands (just as cheese now does), and the patrons would receive their returns direct and in cash. I would ask anyone to consider for a moment how much per pound his cheese would have realized him the past season, or, in fact, any season, provided it was made up in the same way that the butter is now made in private dairies, with every man his own cheese-maker. I venture to say that he would not get on an average more than five to six cents per pound.

In the second place the dairy-woman who sends her milk to a first-class butter factory would receive her returns (about once a month) directly in cash, much more than she could get from the grocer in trade. For instance, when ordinary butter is worth 15 to 16 cents in trade, that same butter, made up on the factory system, would be worth 19 to 20c and perhaps 22c, thus leaving 5 to 6c in favor of the butter factory, which, after paying all expenses for manufacturing, drawing milk, &c., would leave a good margin in favor of the factory system, to say nothing of the hard, laborious work which the farmer's wife and family would be relieved of, for setting, skimming, churning and marketing are no light task, especially in the summer season. She would receive the cash at her door, and be relieved of all trouble and anxiety, save the milking and cleaning of cans and pails. If the factory system has enhanced the value of cheese, which every one