

Parsnips.

In selecting ground for parsnips, choose that which last year was very highly manured and thoroughly and deeply worked. This vegetable delights in a deep, rich, well-pulverized soil, of a sandy or light loamy texture, and forms smooth and better roots when the enriching has been done the previous year, and the manure thoroughly incorporated with the soil. If manure be given the same season, it should be most thoroughly decomposed, or, what would be perhaps better, a light application of commercial fertilizer. Coarse manure causes the roots to branch a fork, and become uneven and rough. This is a favorite vegetable with nearly all people, boiled and served with butter. There is only one variety worth mentioning, and that is the Hollow Crown, which grows more smooth and regular, and is of a finer and sweeter flavor than any other variety, at least that is the experience in this part of the country.

As frosts do not injure the parsnips, the roots can be left in the ground all winter, and taken up when wanted in the spring, by spreading a few branches of fir or spruce, or straw, over a part of the bed to prevent the freezing and thawing in the spring, to cause the tops to rot. Where they are left in over winter, care should be taken to see that they are left in a piece of ground that is naturally dry, or they are apt to rot down three or four inches during the latter part of March and the first of April. In some instances, it is desirable to store a quantity in the cellar for winter and spring use. My experience has been that this is the better way to secure the whole crop, as, taking it on an average, they will keep better in the cellar than in the ground.

My way of getting them out of the ground and storing is this: I take a pair of horses and plow, with a man to drive, and run a deep furrow three or four inches away from the parsnips, then plow the next furrow just deep enough so that the tails of parsnips stick up about three inches; then go along and pull the parsnip out and snip the top off with the fingers, which leaves the tops under the ground, where they should be, to rot. If it is naturally dry ground, and does not need rigging up for the successive crops, the ground is plowed ready for spring seeding. Three men and a pair of horses will take out and store in the cellar thirty or forty barrels a day in this way, and is a decided advantage to trying to dig them out with a fork. You will destroy more in one day with forks than you would in a week with a plow. After they have dried completely, put them in the cellar, and cover with bags or sacks and about six or eight inches of coarse hay. I find they keep better this way than when packed in earth. Stored in this manner in a dry, cool basement, they will come out in the spring just as fresh and sweet as when stored. The seed may be sown as early as the soil can be worked, as they come on very slow the first month, in drills fifteen inches apart. They should be thinned out to three or four inches apart in the row, and the ground well and thoroughly cultivated as long as the cultivator can be properly run between the rows.

Col. Co., N. S.

Improving the Old Orchard.

There are many old orchards in the country that, through neglect, have become unprofitable, and it is a question with many whether it is worth while to try to revive and improve them. If they are of the right varieties many of them can be made to pay well for the labor required to put them in good shape. This has been well proved in many cases where orchards have changed hands, and under good treatment, in the way of cultivating, pruning and spraying and a liberal application of fertilizers, have given excellent returns, where they were formerly barren or only producing meager crops of stunted, useless stuff. Many of them are starved. They are left standing in sod, after the fertility has been taken out of the soil by other crops, for many people continue to crop the land just the same as if no trees were growing there, and it is safe to say that the prevailing cause of unproductive orchards is lack of fertility. The signs are plainly evident—a weak, puny growth, pale foliage, and a scraggy, unthrifty appearance.

If the orchard has been standing for some years in sod, one of the first things to do is to break it up and bring it into a good state of cultivation. This will involve the breaking of a number of small roots that have come up near the surface in search of food, but the damage will be more than offset by the good effect the cultivation will have on the trees. Then apply a liberal dressing of manure if it is available, just such a dressing as would be used in the preparation for roots or corn, and disk it in. If manure is not available, sow red clover after the ground is in a good state of tilth. Sow the clover alone, and plenty of it, to ensure a good catch. Plow it in the next year when it is about half in blossom, and apply hardwood ashes (unleached) at the rate of forty or fifty bushels to the acre. If ashes cannot be got, sow around each tree about five pounds muriate of potash and ten pounds finely-ground bone meal. Surface-work the land immediately after plowing in the clover, and sow with rape. In the fall, when the rape is pretty well grown, turn in a flock of sheep or lambs. It would pay to buy some lambs for that purpose, and they will pay well for fattening. There should be ten lambs to the acre, and feed a little ground oats and bran, or a little oil cake, along with the rape. They will feed on the rape until near Christmas, if given a place where they

can shelter at nights and on stormy days. In the spring, plow and cultivate until June, and then sow again to clover as before, which will serve as a cover crop in winter, and to be plowed under the following year when in half bloom. This course of treatment will add two much-needed elements to the soil—humus and fertility.

In pruning an old, neglected orchard, cut no large limbs. The chances are that they have been badly butchered at some time. Thin out the fine brush, using a step ladder and working round the outside of the tree. If it has had at some time the heroic treatment we so often see, and has grown a lot of suckers, good judgment will be required by the pruner to use some of those to restore it to proper shape. Then the rough bark should be scraped off, and the whole surface washed or scrubbed with some alkali wash, such as Gillet's lye, one can to five gallons of water, or lye made from hardwood ashes. There is nothing better, used not quite as strong as is used in soapmaking. If it will float a potato, dilute with water until the potato sinks; then it will do very well for old and large trees. This process is well worth the trouble. It removes bark lice and other insects, and has a tonic effect on the tree that improves its health and vigor wonderfully, and the best time to do this is about the first week of June. Then, it should have at least three sprayings—one of three pounds of bluestone to forty gallons of water, just as the buds begin to swell; another with the full Bordeaux mixture, just before the blossoms open. If bud moth or leaf-eating insects are present, Paris green should be used with the mixture, six to eight ounces to forty gallons of water. Then repeat with the same formula as soon as the blossoms have fallen. The necessity for further spraying will depend largely upon the weather. This course of treatment would bring many old, neglected orchards into a healthy, productive condition, and, where not too far gone, from old age and neglect, the labor and expense of reviving them will be well repaid.

Strawberry Culture.

Strawberries may be grown on any soil which will produce profitable crops of corn, potatoes or roots, but the ideal home of this queen of fruits is a deep, rich, sandy loam, with a clay or gravelly subsoil. On such soil, under the methods of culture I am about to describe, with the aid of favorable weather conditions, we have harvested from ten to fifteen thousand quarts of high-class berries per acre.

We prefer to plant strawberries on a plot on which we had the previous year grown potatoes or roots. We apply, during the winter if possible, twenty to thirty tons of stable manure per acre. When the land is dry enough to carry the horses, we harrow it, driving them at a trot, in order to more thoroughly spread the manure. We then plow it, and disk or spring-

plant only those plants having nice, clean, fresh hearts and roots, and throw away the weak ones. We mark our rows three and one-half feet apart, and plant twenty to thirty inches apart in row, being guided in this by the propagating tendency of the variety.

We have obtained the best crops of the best berries from a narrow matted row, not wider than eighteen inches, with the plants four to eight inches apart in the row. In planting, we make the holes with a spade, taking care to get the roots well spread, but all pointing downwards, and press the soil firmly to them. Just as soon as we get our patch planted we cultivate and hoe it, and repeat such act every week or ten days, and every time it rains, not so much to kill weeds as to assist nature, by letting in the air, which conserves and makes available to the plant the moisture, and, through it, the plant-foods in the soil. We know that there is always moisture under a board or a stone, likewise under two or three inches of dry earth, no matter how dry, if it be kept loose and fine by cultivation; because any body or substance which is interposed between the hot air and the moist soil will prevent the undue evaporation of the moisture.

A rotation of crops that we have followed with success is: Strawberries, plow the patch under after harvested with a skimmer on plow, and roll and harrow; sow with turnips, broadcast, or rye; plow under the following spring, and plant corn or roots; next year, barley, and seed with clover; plow that under the following spring, and plant potatoes; and then you will be ready for strawberries again.

I might say that if you have not plants of your own to select from, it will pay you to get them from a reliable grower, and don't object to paying a fair price for them. Good plants, dug from the row, and mulched with horse manure to protect them during the winter and stimulate them in the spring, are better value for your money at four dollars per thousand than poor ones are as a gift.

F. R. BRECKON.

Halton Co., Ont.

DAIRY.

As a Farmer's Cow.

By Geo. Rice, Norfolk Co., Ont.

No breed of cattle has had more to contend with from opposition of rival breeds than Holsteins. Prejudices die hard, but Holsteins have shown, wherever given a fair chance, such intrinsic value as dairy cattle that they have won their way to first place in the estimation of very many practical dairymen, until now no breed is more popular. This has been brought about by the unbroken series of victories in public test, and by the great showing made by this breed in official tests. There are more and larger records to the credit of Holsteins than can be shown by any of the other breeds. It is not alone as pure-breds that Holsteins have demonstrated their worth, but many dairymen have, by the use of good Holstein bulls on grade cows, made great improvement in the milking qualities of their herds. The great records made by grade Holsteins in the herd of that zealous dairyman, the late Mr. E. D. Tillson, are known very widely. But many others working in the same line have had, on a smaller scale, equally good results, until now a black-and-white cow will sell for more money at public sales than any other. It was only a short time ago that a number of grade Holsteins sold at the large price of \$78.00 per cow. Why? Because they had shown such good records in actually supplying milk to the cheese factory. Dairymen consider a cow worth as much as she will make in one year, and there are a great number of grade Holsteins that make from \$50.00 to \$75.00 per year, and many do better. A grade Holstein at the last Winter Dairy Show made the good showing of 127 pounds of milk, testing 3.95 per cent. of butter-fat in forty-eight hours. Holstein breeders have, as a rule, steered clear of fads and fancies that have worked injury to other breeds, and have banked upon performance. Advanced registry, wherein actual performance is the crucial test, is the standard that Holstein breeders set most value upon. They believe that a cow must possess capacity for milk if she is to transmit the milk habit to her descendants. A cow may possess what is generally called "great dairy form," and yet be an indifferent performer. How can a cow transmit what she does not possess? On the other hand, a cow that is a great performer may lack some of the points that we in ignorance call



Lady Nancy —6245—.

First-prize Ayrshire cow over three years, Central Canada Dairy Show, 1904. Property of J. G. Clark, Ottawa, Ont.

tooth it both ways, harrow, and repeat this method of cultivation until the manure is thoroughly mixed in with the soil, and that reduced to the finest particles possible. We now leave it to the care of nature, until we are ready to plant, unless it rains heavily, and then cultivate it over again, and don't begrudge the time, because when we set the plants we want the soil to be ready to feed them.

The varieties we grow are the Clyde, Williams, Glen Mary, Bubach, Bederwood and Brandywine. Before digging any plants, we give the plot a stroke with the harrows, both ways, and roll it. In digging, we use a five or six pronged dung fork, and dig a portion of the whole row, shake the plants out, and instantly place them in a basket or a damp bag, carry them to some place protected from the sun and wind, and clean them by removing the old runners and leaves, and trimming off those roots longer than four inches. We