

*Parsnips* are valuable for cattle, though not much cultivated. On rich lands, 30 tons to the acre have been raised. They contain more saccharine matter than carrots, and they may remain out all winter, and may be red fresh from the ground in April and May. As they are highly nutritious, it is astonishing that no more attention has been paid to their cultivation.

Hon. Mr. Allen said, that we can raise roots to a great extent, but the question is, how far we can do it with profit. Potatoes are of great importance. They will grow in almost any soil or situation, yet pay for the best cultivation. Nearly one-third more may be raised in drills, than in hills. Potatoes degenerate. The remedy is to select good seed, and plant different kinds apart. A neighbour had pursued this course, with a favourite kind for 12 years, and they continue productive and excellent. Fair-sized potatoes should be selected and planted whole. He found plaster to add greatly to the value of his potato crop.

Mr. Cole, Editor of the *Cultivator*, said that in all branches of farming, economy was of great importance, particularly in raising root-crops to advantage. He had pursued a plan that saved more than half the labour. In the fall prepare the land, manure and plough it. There will be no waste of manure by evaporation in cold weather, and it will not infiltrate beyond the reach of tap rooted plants. If the land cannot be prepared as here named in the fall, then do so as early as possible in the spring. The weeds will soon start, then harrow, plough, or use the scarifier, to destroy the weeds, and bring up a fresh lot of seeds to vegetate in turn. Continue stirring the soil every 8 or 10 days till the 25th or last of May; then have the seed prepared in the following manner: turn on water as hot as the hand can bear, and let the seeds soak in a warm place two days; then drain off the water, and lay a wet cloth over the seeds, and keep them warm, till they begin to sprout; then having the land freshly prepared, plant or sow the seeds, and the plants will be up before the weeds, which will be nearly destroyed by the frequent working of the soil. This way hard seeds, such as beets, carrots, and parsnips, will have 8 or 10 days start of such as are not soaked, and will bear sowing later. He found that on land thus prepared, he could weed more than six times as much as if the land had been prepared in the usual way. Potatoes will not mix except in blossom, which affects the seed only.

Mr. Metcalf said, that a neighbour of his fed his cows one week on ruta baga, and then a week on carrots, equal quantities of each, and so alternately, and they gave one-third more milk when fed on the former. He made an experiment by using long barn-yard manure, and hog manure separately, on the same piece of land, for potatoes—and the hog manure produced a third more than the long.

Mr. Parker found, from experience, that hog manure was not good for the potatoe crops. Subject for discussion next week—*Farming Implements*.

**MANUFACTURE OF CHARCOAL.**—A new process commended in the *Journal des Forêts*, for this purpose, is to fill all the interstices in the heap of wood to be charred with powdered charcoal. The product obtained is equal in every respect to cylinder charcoal; and independent of its quality, the quantity is much greater than that obtained by the ordinary method. The charcoal used to fill the interstices is that left on the earth after a previous burning. The effect is produced by preventing much of the access of air which occurs in the ordinary method. The volume of charcoal is increased a tenth, and the weight a fifth.

## DESTRUCTION OF INSECTS BY ARTIFICIAL MEANS.

The following is an extract from an article in the *British Farmer's Magazine*, by C. W. Johnson.

Various have been the successful recipes suggested for the destruction of the insects which destroy the cultivator's crops: thus ants, it is said, may be easily destroyed by toasting the fleshy side of the outside skin of a piece of bacon till it is crisp, and laying it at the root or stem of any fruit tree that is infected by these insects—put something over the bacon to keep it dry; the ants will go under; after a time lift it up quickly and dip it into a pail of water. For the destruction of slugs, warm in an oven, or before the fire, a quantity of cabbage leaves until they are soft, then rub them with unsalted butter, or any kind of fresh dripping, and lay them in the places infected by slugs. In a few hours the leaves will be found covered with snails and slugs; this plan has been successfully tried by Mr. Loudon, at Bayswater. Earwigs and wood lice are destroyed in the same way. For field operations, perhaps the best means of destroying slugs and worms is, common salt, an agent too little known for this purpose, yet its powers are undoubted.

No person has employed common salt for the purpose of destroying worms, to a greater extent than Jacob Bush, Esq., of Ponsbourn Park, in Hertfordshire. His valuable experiments extended over some hundreds of acres of wheat. To use his own words—“In every situation, and at every time, the effect appeared equally beneficial.” The quantity per acre—“about four or five bushels sown out of a common seed shuttle.” The period—“In the evening.” The effect—“In the morning each throw may be distinguished by the quantity of slime and number of dead slugs lying on the ground. In some fields it has certainly been the means of preventing the destruction of the whole crop.” Six bushels of salt per acre, were applied by hand, in April, 1828, to a field of oats attacked by the slugs and worms, on the farm of Mr. John Slatter of Draycote, near Oxford. The crop was completely saved by this application, although an adjoining field, not salted, was completely destroyed by this sort of vermin.

Salt, too, is a complete prevention of the ravages of the weevil in corn. It has been successfully employed in the proportion of a pint of salt to a barrel of wheat.

The black and green fly may be killed by dipping the point of the young shoots of plants infected with them into a thin cream, composed of stiff yellow clay mixed with water; the clay will, it is true, look dirty upon the trees for a few days, but the first shower of rain washes it off, and the shoots will look more healthy than before the application; “there is no fear,” says Mr. Loudon, “of the return of the insects that season.” The scale in pines may be destroyed by the same mixture. The bug (*Aphis lanigera*) upon fruit trees may be killed by the use of the same clay and water, made as thin as whitewash, and mixing with every 6 gallons of it 2 lbs of cream of tartar, 1 lb. of soft soap, and half a peck of quick lime. “When you think,” adds Mr. Loudon, “that the weather is likely to continue dry for some time, take a bucketful of this mixture, and, with a large brush, wash over the bark of the trees, wherever you think it has been infected with the bug. A man will dress a number of trees over in a few days with a whitewash brush with this liquid; it is only necessary to be careful to do it in dry weather so that the rain may not wash over the mixture for some time. *Roses and*

*teasps.* A mixture of pepper, sugar and water, will speedily attract and destroy them. (*Gard. Mag.*, No. 37; *Quart. Jour. Agr.* vol. iii. p. 1071.) Moss and insects. Mr. Thomas recommends that the trees infected should be sprinkled with a fine powder in March, and again in October, on a foggy day, when the trees are damp but not dripping, and I have no doubt of its efficacy. The powder may be composed as follows: slack five bushels of lime, hot from the kiln, with common salt and water (say 1 lb. of salt to each gallon of water) When the lime has fallen to a fine powder, add, by small quantities at a time, a bushel of soot stirring it until it is completely incorporated. Mr. Thomas has found that one man can dust over with the powder fifty trees in a day, and that the moss in the turf, under fruit trees thus treated, is also completely destroyed by the application. (Trans. Soc. Arts.) Worms in grass plots may be readily destroyed by copiously watering the turf with lime water (half a pound of the hottest quick lime well stirred in each gallon of water,) or by sprinkling salt (10 bushels per acre) over it, or by strewing it on gravel walks in rather larger proportions. Lime is recommended for the destruction of the worm which sometimes injures young larch plantations, by Mr. Menzies (*Com. Board of Agr.* vol. vi. p. 163); coal tar and tar water, to preserve hop poles and other wood from the ravages of insects. (*Id.* p. 166.) The caterpillars on cabbages may be readily destroyed by sprinkling them with fine powdered lime; and when, some years since, a black caterpillar attacked very generally and extensively the turnips in some instances they were successfully destroyed by turning into the fields considerable numbers of common ducks. Heavy rolling, especially during the night, is in many cases destructive of slugs. Salt, and also rape powder, are pernicious to the wire worm. On many soils, the wheat crop sown after a summer fallow is never attacked by these vermin. Mr. Hillyard thinks he has escaped their ravages of late years, by ploughing his clover lays for wheat after the first year. (*Prac. Farm.* p. 115.) And it is certain that by occasional material variations in the rotation of crops, the number of predatory insects may be very considerably reduced (by depriving the larva of their particular and essential food), in cultivated soils.

Mr. Knight recommended the use of carbonate of ammonia for the destruction of the insects upon the pine and other plants. (*Sel. Papers*, p. 245.) Mr. Baldwin, in effect, does the same, when he commends the use of the steam from fermenting horse dung. (*Prac. Direc.* p. 30.) Mr. Robertson found soot (which contains ammonia), when diffused in water, to be an excellent application. (*Gard. Mag.* vol. ii. p. 18.) When speaking of the use of fermenting horse dung, in the destruction of insects, Mr. Knight remarked, “I conclude the destructive agent in this case is ammoniacal gas, which Sir Humphrey Davy informed he had found to be instantly fatal to every species of insect; and, if so, this might be obtained at a small expense by pouring a solution of crude muriate of ammonia upon quick-lime; the stable or cow house would afford an equally efficient, though less delicate fluid. The ammoniacal gas might, I conceive, be impelled by means of a pair of bellows amongst the leaves of the infected plants, in sufficient quantity to destroy animals without injuring vegetable life; and it is a very interesting question to the gardener, whether his hardy enemy, the red spider, will bear it with impunity.” Ammonia seems peculiarly distasteful to insects. Carbonate of ammonia is often successfully placed in most cases to prevent the attacks of flies.