

AGRICULTURAL



REPORT OF THE DOMESTIC GARDENERS' CLUB.

ON THE CULTURE OF THE POTATO.

The *Solanum tuberosum*, or common potato, under general cultivation, is a native of the country lying between Lima and Pasco, in Peru. It is very common about Valparaiso, inhabiting steep, rocky places on the cliffs near the sea, and always bearing pure white blossoms, free from the purple hue so common in the cultivated varieties. In its native state, the potato has strong, luxuriant vines, with many blossoms, and long, straggling roots, bearing small tubers that are tough, hard, and unpalatable when eaten.

In an improved state by cultivation, in many instances, the potato loses its blossom, and in this state such varieties are called *No-blossoms*, and generally come into use early in the season, as the Ash-Leaved Kidney, Walnut-Leaved Kidney and the like varieties. The late varieties generally have blossoms, and by culture, the tuberous roots become large, mealy, and of good quality in proportion to the adaptation of soil, climate and culture.

There are two methods of producing the potato:

First, by seed, and,
Secondly, by planting a part of the tuberous roots.

In the first instance, when the potatoes are produced from seed, the young plants when brought into a state of perfection differ very essentially in color, size and quality from the parent plant; almost every seed produces a distinct variety. It has therefore been a universal custom to cultivate the potato from the tuberous roots, in order to retain any desired variety for a number of years.

In referring to the above methods of producing the potato under cultivation; the planting of the roots has certainly the precedence over that of growing a new stock from seed, as a more ready and profitable method to the general planter; although, at the same time, it may be fairly stated, that by a continued reproduction of potatoes from the roots, is a bad system, and adverse to the true principle of the retaining its primitive health and vigor, which cannot be naturally continued by other means than by raising a new crop from seed, which alone contains the vital principle of continued reproduction of its natural type. It is true that the roots of the potato will produce its like for several successive years, by a high state of cultivation, and it is also clear, that the roots under cultivation, have their allotted time to arrive at a state of the greatest perfection, and after arriving at that state, by continual reproduction, the roots will be on a gradual retrograde until by disease, and a continual decay, they become almost worthless with the best cultivation.

CULTIVATION.

The potato produces good crops of excellent roots, when well cultivated, on a soil adapted to its growth, in this Territory. Indeed, there is no vegetable more local in this country than this useful root. A rich, mellow, moist bottom soil, where willows grow, may be considered the best locations for the potato. When such locations are cleared and brought to a good state of cultivation, good crops are generally produced for two or three years in succession. In such locations, the roots of the plants can freely penetrate deep into a rich, cool, mellow soil, which is little affected by the extreme heat; hence the roots in such places, are always in a cool, equal temperature; the leaves, roots, and the like components in the soil, are also undergoing a gradual decomposition, and are ingredients of food of the very best quality for the crop; it is therefore owing to a great amount of vegetable food contained in such locations, that is the cause of several successive crops of potatoes being grown to good perfection.

Such locations will probably yield crops for a number of years under good management; but as there is no crop that robs the ground of its favorite nutriment more than the potato, it is clear that continual cropping is a bad system, hence a good system of routine cropping should be adopted to replenish the soil with constituents; wheat, oats or barley will be good crops on such ground, and especially if the stubble is turned in deep in the fall; and then plowed again in the spring at the time of planting.

On dry, gravelly, upland soil, little can be expected when planted with potatoes, for the reason that it does not contain the due portion of nutriment to insure a crop; although in many instances, good crops have been produced from the virgin soil when first cultivated, particularly when first broken, in consequence of the soil decomposing and giving the proper nutriment to the plants; this being exhausted, little remains in the ground to sustain a crop on such locations.

PREPARING THE SEED FOR PLANTING.

Under this head the selecting seed from the potato calls claims the first consideration, when the object is to obtain new varieties from seed. The berries should be taken from a strong, healthy plant, of good variety. They may be sown early in the spring, and the young plants transplanted in rows, two feet apart,

and well cultivated in the season, to produce the seedling roots, which will be small, the first season. When taken up in the fall, the best roots may be selected for planting at a proper time the next season for cultivation, and in the fall a selection may again be made for another season. In this way it will often take three or four years to determine a good variety for seed worth general cultivation.

SELECTING ROOTS, AND PREPARING THE SETS FOR PLANTING.

There is a great diversity of opinion in selecting roots, and preparing the sets for planting; some prefer planting the entire root, others small roots to large ones, while many contend that it makes no difference whether the roots are large or small. In cutting the sets, some prefer to cut off the seed ends, so called, "Full-of-eyes;" others leave one eye to the set, while many prefer two eyes; and then again, many like to have many eyes; these and many other arbitrary notions are advanced in preparing the seed.

Reducing the subject to a reasonable principle, it is here recommended in all cases to select good, well formed roots, of any variety, for seed. The roots should possess the proper shape, color, size, etc., of its variety. It should also be well matured in order that the eyes may be strong and plump, and have a thick, healthy skin or rind to mature the eye. Very late potatoes, that are not matured, have thin skins, weak eyes, and are to be rejected.

Small potatoes, having many weak eyes, are also to be rejected, on the same principle, as seed. Potatoes that have been kept in a warm cellar, or any place where the eyes are started into long sprouts, which are taken off from the roots, are to be rejected on condition that a portion of starch and other constituents of the root that give life to and support the eye, is in a measure exhausted, which cannot be restored to nourish a second eye formed on the same root.

Potatoes intended for seed should be kept cool and retarded as much as possible from making growth, until the time of planting.

Potato vines, like all other vegetables, require to be started strong and healthy when young.

Every eye of a potato when started, may be compared to a young plant, and the result of the crop, will be in proportion to the healthiness of the young plants started from the eye; now when the young vines are frozen in a growing state, scalded by the sun, or in any other way retarded in growth, the crop will in a certain degree, be in proportion to the healthy condition of the vines; and it is often owing to the above causes that only a poor, meager crop of potatoes is produced.

In preparing the sets, a moderate piece for the set should be the criterion, having two or three eyes; very small sets are liable to become dry and shrivelled and do not afford proper nourishment to the eye to make a strong shoot, and the result is that small weak fibrous roots are formed from the eye, at the first beginning, which rarely make strong, healthy plants.

PREPARING THE GROUND AND PLANTING.

In preparing the ground the grand object to be kept in mind is to dig or plow the soil deep, and leave it loose and mellow for planting, in order that the roots may penetrate deep, to receive the moisture, and not be affected by hot, dry weather, which is so injurious to the crop of potatoes. It is a good method to plow the ground late in the fall, that the winter frost may make it mellow, and again in the spring, at the time of planting.

PLANTING.

There are many opinions on the best time of planting. Some prefer planting early in April; others think the 1st of May a good time. Early planted potatoes suffer by frost after the vines appear above the ground; they are then often frozen, and in this state the tops have to make a thick bunch of vines, and the result often follows in a poor meager crop. The first of May is perhaps the best time for planting. The ground at that time is sufficiently warm to give the eyes a strong, healthy start, and it rarely occurs that the vines are injured by frost; the young fibrous roots strike deep in the ground, and fine, healthy plants are generally produced.

There are several methods of planting the sets; some prefer planting two in a hill, two or three feet apart; others are in the habit of planting in drills from two to two and a half feet apart, and placing the sets from ten to twelve inches apart in the row. In all cases it is to be recommended that the sets are not planted too near together.

Planting in rows two and a half feet apart, and placing the sets from ten to twelve inches apart in the rows, is a good system, or in hills three feet each way, with two sets in a hill, ten or twelve inches apart. The sets may be planted two or three inches deep, and covered with loose mellow earth, so that the young plants may come up freely, and have a good start. When the plants are two or three inches high, the ground should be well hoed, and kept loose about them, to insure fine, healthy vines. When the vines are six or eight inches high, they may be earthed by drawing a portion of earth to the hill, or by the side of the row, to form a water drill, to admit water to pass by the vines when irrigated. Irrigation may be commenced when the vines have made a good growth, and the tubers are beginning to be formed, it is important at this time of the growth, that the ground be kept loose and moist about the plants, in order that the young potatoes make a free growth. If the ground at this stage becomes dry and hard, the potatoes will be checked, and often by the ground becoming

to hot, it is so much retarded that it never comes to perfection.

Great caution should be taken not to irrigate the crop too soon, by which the ground is often packed close, becomes hard and is often the cause of the vines being scalded, and the result is always a poor meager crop, or more properly, no crop at all.

Selecting the varieties for seed, is a subject which should be borne in mind, in the culture of the potato. Too little attention is paid to this business, and we find that almost every variety is often found in a crop of potatoes; it is therefore recommended that seed of potatoes be selected in the fall, at the time of digging up the roots. At this time, a true variety of any kind can be chosen with the greatest certainty, and the small inferior roots can be rejected.

Coal Ashes as a Fertilizer.

Wm. Leonard, of South Groton, Mass., gives the following statement, in the *New England Farmer*, of his experience with coal ashes as a manure:

"On an old mowing field too much run down, we top-dressed a square piece of ground fairly with clear coal ashes early in the spring. While the crop was growing, at all stages, the difference was perceptible. When ready for the scythe it was more in quantity; and as to quality, it produced about equal parts of herds grass and red clover. If the clover was not introduced by the agency of the ashes, we know not how it was introduced, for four years none was seen there before, or in any other part of the field, and this was the only clover seen in said field the past season. Both grass and clover was more vigorous, green and lively within the top-dressed square, and just as visible all around was the exhausted crop, which said as audibly as grass could say, in its declining state, that it had received no such assistance from this individual fertilizer.

"On a hill-side not at all renowned for its wealthy properties in soil, we planted the Davis Seedlings and Jenny Lind potatoes, in clear coal ashes, half a shovel full in a hill. Below, on equally as good ground, we planted the same kinds of potatoes in compost manure, and the coal ashes, single handed, turned out the largest, best, fairest and most numerous quantity of potatoes. In reality, they were the best we raised on the farm. Almost side by side, in compost manure, our potatoes were somewhat infected with rot; in the ashes they were all healthy and sound almost to a potato."

Lampas in Horses.

A correspondent of the *Germantown Telegraph*, in a communication on the subject of lampas in horses, says:

The disease consists in a swelling of the roof of the mouth, near the front teeth, and is sometimes higher than the teeth. It happens generally between the third and fifth year, and is supposed to prevent a colt from gathering his food with ease, so that on that account he falls off in feeding, and consequently in flesh or condition. The usual remedy is to sear the parts next the teeth, with a piece of iron made for the purpose, or cut the parts until they bleed freely. These remedies are still generally practiced, nor is it possible, I believe, for veterinary surgeons to prevent its being done. The lampas, as it is called, however, is not the cause of the colt's ceasing to feed well, and falling off in flesh; it depends upon his cutting the grinding teeth at the proper time; and if, instead of burning and cutting the lampas, as they term it, they would keep him entirely on bran mashes for a week, he would be able to eat his hay and corn with avidity, for the stomach, which always sympathizes with the mouth in the painful periods of denutrition, is quickly restored when the power of mastication returns. We often find when the lampas is present, that the membrane of the mouth just within the corners of the lips, is so swollen as to get between the grinders, thus preventing the animal from feeding. When this is the case, it is commonly called bags or washes, and may be removed by swabbing the mouth with a weak solution of the sulphate of iron. This disease is often occasioned by the bearing rein being too tight.

New Cement.—Professor Edmund Davey lately read a paper to the Royal Dublin Society, on a cement which he obtains by melting together in an iron vessel, two parts (by weight) of common pitch, with one part of gutta-percha. It forms a homogeneous fluid, which is much more manageable for many useful purposes than gutta-percha alone, and which, after being poured into cold water, may be easily wiped dry, and kept for use. The cement adheres with the greatest tenacity to wood, stone, glass, porcelain, ivory, leather, parchment, paper, hair, feathers, silk, woolen, etc.

Teaching Pigs to Eat Slow.—A correspondent of the *New England Farmer*, says: Pigs should be early taught to eat slowly, for the advantage of the pig, as well as of the owner. Nothing is easier. Give the weaned pig, at 6 or 8 weeks old—in a clean trough—half a tea cup of dry shorts or bran, and after his dry food is all eaten, give him drink, and increase the dry food according to the age and appetite, till three months old; then add one half Indian meal for two months, and then dry Indian meal, till fattened sufficiently.—This plan has been followed for five years with decided success.

Abuse of the Sugar Beet.

A journal in a neighboring city informs us that for several years past, beets and mangel wurzels have been considerably cultivated in France for manufacturing brandy therefrom; and that this business is proving so profitable there, that many large establishments, once used as sugar factories, have been remodeled and concerted into distilleries for making brandy from the same roots. Progress backward! It tells us, also, that enterprising farmers in England are looking into this matter, and inquiring whether they also may not be able to make a penny or two out of the same business. And, as a sort of poultice for tender consciences, we are told that the pulp of these roots, after the juice has been extracted, may be used as food for stock, and for the manufacture of paper.

In some parts of Great Britain, where high manuring has been practiced, forty tons per acre of these roots have been raised, but from twenty-five to thirty tons is a large yield.—And, without going into the details of the calculation, it is estimated that from \$400 to \$600 per acre of proof-spirit can be realized. After this we are to add the value of the pulp for cattle feed and for paper-making, at \$50 a ton.

It is only a necessary part of this story to add, that some American farmers and business men have turned their thoughts in the same direction. But we question whether any thing good and profitable can come out of the business in Yankee land. Excellent sugar has been made for many years in France from the sugar beet root. Several years ago, many attempts to manufacture it in this country—in New Jersey and Pennsylvania particularly—were only partially successful; the syrup would not granulate well. This arose, doubtless, from the lack of saccharine matter in the beet roots. It is doubtful, therefore, whether American beets will make good brandy, at least, so as to be profitable to the manufacturer. Certainly, as long as Indian corn can be raised for 30 to 50 cents a bushel, it will hardly pay to trouble ourselves with growing beets for sugar or brandy.

But even if the business could be made profitable, we should discourage it from moral considerations. "Ah, Mr. Editor, allow us to make alcohol for use in the arts; to this, certainly, you can't object?" The old apology for carrying on the distillery business everywhere. Very likely, a part of the alcohol may be used in the arts, but a large part will go into rum, gin, brandy, and the like, to ruin our neighbor, and perhaps our children. These evil arts we can only endure, but not recommend, by word or deed.—[Agriculturist.]

Useful Medical Hints.

The *Medical Journal* says: If a person swallow any poison whatever, or has fallen into convulsions from overloading the stomach, an instantaneous remedy, more efficient and applicable in a large number of cases than any half a dozen medicines we can think of, is a teaspoonful of common salt, and as much ground mustard stirred rapidly in a teacup of water, warm or cold, and swallowed instantly. It is scarcely down before it begins to come up, bringing with it the remaining contents of the stomach; and last there be any remnant of poison, however small, let the white of an egg, or a teacupful of strong coffee be swallowed as soon as the stomach is quiet; because these very common articles nullify a larger number of virulent poisons than any medicines in the shops.

In cases of scalding or burning the body, immersing the part in cold water gives entire relief as instantaneous as lightning. Meanwhile, get some common dry flour, and apply it an inch or two thick on the injured part the moment it emerges from the water, and keep on sprinkling the flour through anything like a pepper box cover, so as to put it on evenly. Do nothing else, drink nothing but water, eat nothing until improvement commences, except some dry bread, softening it in very weak tea of some kind. Cures of very frightful burnings have been performed in this way, as wonderful as they are painless. We once saved the life of an infant which had been in advertently drugged with laudanum, and which was fast sinking into sleep which has no waking, by giving it strong coffee, cleared with the white of an egg, a teaspoonful every five minutes until it ceased to be drowsy.

Cleaning Pigs' Heads and Feet.

A correspondent of the *Prairie Farmer* says: Permit me to send you a receipt for cleaning pigs' heads and feet, which I have never seen in print, and have proved to be an excellent one; saving at least half the time usually occupied in cleaning them, and performing the work in a more perfect manner.

Chop off the snout from the head, and divide it into four pieces, after cutting off the cheeks to salt, saving them to bake with beans; wash all thoroughly, and put into a suitable vessel, covering them with water in which a little salt has been dissolved, merely sufficient to draw out the blood; let them soak two days, changing the water each day. The third day take them from the water, scrape them well, but without emptying to remove the bristles; if they do not seem pretty dry after scraping, wipe the skin side; then light a spirit lamp, (I mean simply a fluid lamp, with alcohol in it,) and singe off the bristles in the flame; it will take them off so completely, leaving them white and smooth after a slight scraping, that you will not be able to find even a vestige of them.