



Potato Culture.

The potato crop in Deseret for several years past has not been, in many instances, very productive, having been often an entire failure in some locations, not in consequence of the potato rot which has been so common and universal in the States and other parts of the world for many years past, but from of some blighting influence no tubers have been produced larger than peas or small bullets, and not unfrequently there has been no appearance of bulbs on the radicles whatever.

There have been quite a diversity of opinions entertained and expressed relative to the potato blight, which has so materially lessened the crop of late, some attributing the failure, from time to time, to one thing and some to another, and various have been the ways which have been proposed to remedy the evil and make the crop productive, but no very satisfactory experiments have been made, of a practical or scientific nature, to determine the cause of the blight, neither the efficacy of the remedies that have been suggested, at least, if any such experiments have been made among the farmers, the results have not been reported.

When, if ever, the real cause of the unproductiveness of potatoes in these mountain valleys shall be fully understood, it will, in our humble opinion, have been made to appear that the barrenness is produced by the extreme heat of the weather at or before the time the potatoes begin to form, the searching rays of the sun heating the vines or plants to that extent that the functions of their organs are measurably suspended, the plants become diseased, and produce no fruit. If the extreme heat, so often experienced in this and other valleys in mid-summer, does not exert a greater influence in making the potato crop unproductive than any other blight-producing agency, we are certainly mistaken in our conclusions.

It is the testimony of many that potatoes planted late in the season, say in the old of the moon, the last of May or first of June, are not generally much effected by blight, and almost invariably produce better crops than those planted earlier in the spring. Such has been the result of what little experience we have had in the premises, and, with only one or two exceptions, for the last five or six years, whatever has been the mode of culture, have any been produced when the seed has been planted early in the season. The result of late planting in other locations may have been different, and it would be well if those who have had experience in the culture of potatoes in various parts of the State, would communicate what knowledge they may have acquired for the benefit of the public.

On Grafting Grapes.

The following communication on the subject of grape-grafting published in the *Country Gentleman*, is from the pen of Mr. C. E. Goodrich, of Utica, N. Y.:

REASONS FOR GRAFTING THE GRAPE.

You are thus able speedily to change a large and thrifty vine whose fruit is poor into one whose fruit is valuable. A vine of moderate size in a favorable year, will sometimes show flowers the year it is grafted. You may always expect a moderate crop of fruit the second year, and a heavy one the third year.

Occasionally, too, in some varieties of grapes the organs of fructification are imperfect from the excess of stamens; hence the vine is a shy bearer. Here the advantage of grafting, with a free and perfect flowering variety is apparent.

There is no perceptible gain to hardiness, in grafting a tender variety on a hardy stock; such in my experience have been just as liable to mildew, in hot, damp weather, as when grown on their own roots. The scions I have mostly used where the early Black July, Miller's Burgundy, Violet, and Golden Chasselas.

TIME OF GRAFTING.

Very early in the spring, as soon as the frost is out of the ground, which is here from the 1st to the 10th of April usually, at least in protected positions, where the grape is usually planted. Grafted at this time, the grape does not bleed when finally the sap starts.

In the early summer, when the vine has made considerable growth, and the larger leaves had attained a full expansion. This period here is usually from the 25th to the 30th

of June. At this time the sap begins to thicken and granulates readily. Even now, if on trial the stocks are found to bleed much, the operation should be deferred a few days. There is but little difference in the success of grafting at these two periods. There are, however, two very obvious advantages in early grafting. The first arises from the difficulty of preserving your grafts from sprouting and blackening until the later period. The second is the superior ripeness of the young wood, and its consequent ability to meet the winter, especially where early autumn frosts occur.

STOCKS USED.

From about 1845 to 1852, I grafted perhaps 150 stocks. They comprehended two or three native sorts, said to have been brought originally from Connecticut, two or three native sorts of unknown origin, and many Isabellas and Catawbas.

MODE OF GRAFTING THE GRAPE.

Saw off the stock two or three inches below the ordinary surface of the soil, cutting it a little higher or lower, if you can thereby get a clean split for your scion. The vine will sometimes exhibit a collar just below the surface, which will not give a good split; I prefer to go below this, even at the expense of cutting off some of the side roots.

Pare off the stock smoothly with a sharp knife.

Split it two or three inches as in ordinary cleft grafting, and open it with a wedge if the stock is very large.

Let your graft be two buds long, leaving one inch of wood at least, above, and two or three below to constitute the wedge.

With a very sharp knife, bring your graft to a wedge shape, as in the case of ordinary cleft grafting, having the lower bud on the outside of the stock.

Insert your graft so that bark meets bark, if your stock is large.

If your stock is small, set a graft in each side.

If your vine is small, tie the graft in, being careful to use strings that will decay readily, so that you need not subsequently have to loosen them. A narrow strip of cotton cloth is good.

I sometimes have clayed or waxed the graft, and often not. The earth falling into the cleft seems harmless, as that part of the stock immediately in contact with the graft is alone important.

Bring the earth back around the graft, leaving the lower bud just covered. It will readily press through the soil if it starts well.

I like to put a drop of the shellac varnish on the top of the graft, to prevent its drying up.

Stick down a shingle or half a barrel stave just south of the graft so as to shield it for a few weeks from the noon-day sun, until it is well established.

If both buds start vigorously, break off the upper one, as one vine at the base is better than two.

Carefully pull up the sprouts which almost always spring up from below the graft.

Should your graft not start, or seem likely to die, let one sprout grow from the bottom, to become a future stock.

The first time you trim, cut back your vine severely if it be feeble, or the stock were small. Otherwise leave plenty of wood for a crop the second year.

Cultivate around your graft as you do in the case of any other grape.

Sheep Shearers' Festival.

A premium having been offered by Mr. A. L. Bingham for the best sheep shearer, arrangements were made for a sheep shearer's festival at Marysville, Cal., which came off on the 6th instant. The following statement of the proceedings is from the *Appeal*:

There were over sixty fine French Merino sheep from the Brannan ranch on the ground, and eight shearers presented themselves. The shearing commenced in the forenoon, under the supervision of the following Committee: Messrs. McDonald, of Alameda county, Montgomery, of Butte, and J. W. Moore, of Yuba. The shearers were as follows: J. C. Cutting of Yuba, O. A. Peck of Napa, and S. B. Butler, P. Anderson, T. Galbraith, L. Scott, S. M. Weller and L. C. Hodge of Sutter county. The shearing was prefaced by weighing the sheep, and splendid looking animals they were, too, with just such fine merino wool as would make a garment almost as soft as cashmere were the wool properly dressed and worked up. The average weight of the fleeces may be judged from the fact that the aggregate weight of the clip of forty-four year-old ewes was 674½ lbs.—the sheep weighing 4,726½ lbs. before being sheared. The average clip was 15½ lbs and 5¼ ozs. The average weight of the clip from eighteen bucks—of which all but three were year-olds—was 451½ lbs; the average clip being 25½ lbs and 1½ ozs. each—the weight of the sheep before shearing being 2,660½ lbs. For the benefit of those who have an interest in what shearers can do, we append the result of each man's shearing:

Weller, 6 sheep in 6 hours and 25 minutes.
Scott, 9 sheep in 5 hours and 50 minutes.
Reck, 10 sheep in 6 hours and 38 minutes.
Cutting, 5 sheep in 6 hours and 38 minutes.
Galbraith, 8 sheep in 6 hours and 25 minutes.
Butler, 8 sheep in 7 hours and 5 minutes.
Anderson, 6 sheep in 7 hours and 5 minutes.
Hodge, 5 sheep in 6 hours and 25 minutes.

It will be seen that the swiftest workman was Scott, who sheared, on an average, one in thirty-eight minutes; and the slowest was Weller, who sheared one in two hours and eight minutes, but his work was beautifully done, being absolutely perfect. But as the committee were instructed to consider the handling of the sheep, amount of injury done to the animal and cleanness of the clip, as well as the time consumed, they awarded the premiums: First, \$10 to T. Galbraith, and second, \$5 to L. C. Hodge.

A General Blunder.

An amusing dialogue lately occurred in one of the American camps between a private who was acting as sentinel near a hospital, and a general. On the approach of the latter, the former neglected to give the accustomed salute. The general then sharply asked:

"Who stands guard here?"

"A chap about my size," answered the private.

General:—"What are your duties here?"

"To allow the sick to come out, and to keep the well in."

"Call your corporal."

"You won't catch me doing that. I don't intend to stand here two hours longer than usual to please you." [The sentinel alluded here to a rule which gives corporals the power, when they are unnecessarily called by sentinels, to punish them by imposing on them two hours' extra duty.]

The general, indignant at these replies, hunted up the lieutenant of the guard, and facing the sentinel, said:

"What instructions do you give your men in relation to saluting superior officers?"

The lieutenant said to the sentinel, "Have I not to do you to salute your superior officers—do you not know that this is your general?"

The sentinel, with a look of amazement, replied:

"Almighty is not better acquainted with him as a general than I am, he is a lost man, sure."

The Minerals in our Bodies.

In the body of a man weighing 154 pounds there are about 7½ pounds of mineral matter, consisting of phosphate of lime, 5 pounds 13 ounces; carbonate of lime, 1 pound; salt, 3 ounces 3.76 grains; peroxide of iron, 150 grains; silica, 3 grains—making 7 pounds 5 ounces and 49 grains, with minute quantities of potash, chlorine and several other substances. The rest of the system is composed of oxygen, hydrogen, nitrogen and carbon; 111 pounds of the oxygen and hydrogen being combined in the form of water.

Though the quantity of some of these substances is very small, it is found absolutely essential to health that this small quantity should be supplied; hence the importance of a variety of food. If we furnish nature with all the material required, she will select such as the system needs, and always just in the proper quantities.

FEATS OF THE REINDEER.—At the palace of Drottningholm, in Sweden, there is a portrait of a reindeer, which is represented, on an occasion of emergency, to have drawn an officer with important dispatches, the incredible distance of 800 English miles in 48 hours. The event is stated to have happened in 1699, and tradition adds that the deer dropped down lifeless on its arrival. M. Pictet, the French astronomer, made some experiments in the year 1769, in order to ascertain the speed of the reindeer, when exerted to the full, for a short distance. Of three deer yoked to light sledges, the first performed 3,089 feet 8 inches in two minutes—that is, at the rate of nearly 19 miles an hour; the second did the same distance in three minutes, and the third in three minutes and twenty-two seconds.

STUDY THE FACE.—A story is told of a great French satirist, which finely illustrates his knowledge of human nature. He was traveling in Germany, in entire ignorance of its language and currency. Having obtained small change for some of his French coins, he used to pay drivers and others in the following manner: Taking a handful of the numismatic specimens from his pocket, he counted them one by one into his creditor's hands, keeping his eye fixed all the time on the receiver's face. As soon as he perceived the least twinkle of a smile, he took back the last coin deposited in the hand, and returned it with the remainder to his pocket. He afterward found that in pursuing this method he had not overpaid for anything.

THE TEST.—"When you see a dog following two men," says the Rev. Ralph Erskine in one of his sermons, "you know not to which one of them he belongs while they walk together, but let them come to a parting road, and one goes one way, and the other another way, then you will know which is the dog's master. So at times you and the world go hand in hand. While a man may have the world and religious profession too, we cannot tell which is the man's master, God or the world; but wait till the man comes to a parting road; and God calls him that way, and the world calls him this way. Well, if God be his master he follows religion, and lets the world go; but if the world be his master, then he follows the world and the lusts thereof, and lets God, conscience and religion go."

—Where the mouth is sweet and the eye intelligent, there is always the look of beauty with a rigid heart.

Machinery for Setting Type.

A machine has at last been introduced, which it is claimed, accomplishes successfully the operation of type-setting. The machine is driven by steam or foot-power, and controlled by the operator through a key-board, but the arrangement is, as far as may be, in close analogy with the present method of setting type. When it is desired to change the size of type, the cases are taken out of the machine and others put in their place, just as the cases are changed at present on the ordinary stands. The cases are of metal, and the types are arranged in columns, and are taken from the case by a small pair of pincers corresponding with the fingers; they are gathered into a stick which holds but a single line, and has a little bell attached which gives the operator warning when he approaches the end of the line. When the line is finished the operator touches the justifying key, which throws the line out of the stick, and the line is justified and leaded if desired, added out upon a galley ready for the press. It both composes and distributes, and as one of these operations is but the reverse of the other, so in the machine, if the motion be communicated in one direction it will set type, while if communicated in the opposite direction it will distribute.

Iron and Steel Manufactures.

A consecutive series of chemical researches into the different processes of manufacturing iron, from the calcining of the ore to the producing of the bar, has led to a complete and thorough revolution; and although it is just at the present time in a state of transition, it nevertheless requires no very great discernment to perceive that steel and iron of any required tenacity will be made in the same furnace with a certainty never before attained. This has been effected, to some extent, by improvements in puddling; but the new process by Mr. Bessemer is regarded as affording the highest promise of certainty of perfection in the operation of converting the metal pig direct into steel or iron, and is likely to lead to the most important developments. —[Mining and Scientific Press.]

PARIS TO BE ZONED WITH FLOWERS.—A curious project has just been submitted to the municipality of Paris. The plan is to gird Paris with a zone of flowers. The gentleman who proposes this plan of a "Sardin de Ceinture" is said to be a celebrated botanist and agriculturist. He proposes to the State to transform the fortifications and the earthworks facing the city, both of which are now so much unproductive waste ground, into a great *potiniere d'acclimation*, or a nursery for exotics of every possible kind, wheather from cold or hot countries, according to the aspects of the sitch, wall, and earthworks. The administrators of this garden, which he guarantees to form with a given capital for the commencement of operations, would pay to the State a certain rent per hectare; undertake to cultivate no species of parasitical fruit or flower that would be injurious to the wall or difficult to remove in case an enemy was expected; to sell at a low market price the produce of the fortification, and, in the space of two years and a half, to clear all the expenses that the society may incur in carrying out the project. Nothing can be more brilliant than the results which are promised.

OAKS IN ENGLAND.—The Parliament Oak in Clipston Park is said to be fifteen hundred years old. This park existed before the Conquest, and belongs to the Duke of Portland. The tallest oak was the same nobleman's property. It was called the Duke's Walking Stick, and was higher than Westminster Abbey. The largest oak in England is the Calthorpe Oak, Yorkshire; it measures seventy-eight feet in circumference at the ground. The Three Shire Oak at Workop is called so from forming part of the counties of Nottingham, Derby and York. This tree had the greatest expanse of any recorded in this island, drooping over 777 square yards. The most productive oak was that of Gelsenos, in Monmouthshire, felled in 1810; the bark brought £200 and its timber £670. In the mansion of Tredegar Park, Monmouthshire, there is said to be a room forty-two feet long and twenty-seven broad, the floor and wainscot of which were the production of a single tree—an oak—grown on the estate.

HORSE RACING IN JAPAN.—A few days afterward I was invited to witness their races. The race-course was between two rows of houses, and every verandah was crowded with occupants of both sexes. At a given signal some thirty horses started off amid shouts and yells, and went away as well as they could, their riders not being extremely anxious to go fast, as it was soon discovered the qualities and perfection of a horse in Japan are not estimated or tested by his speed, but by his powers of endurance. So the thirty horses, after going up and down this street as long as they could, gradually fell off, tired and beaten, until one only remained. This was declared the winner. The race lasted quite an hour, and at intervals a fresh batch took up the running. It was stupid work to us, and as the day was hot we left early. —Hodgson's Japan.

—Why is Boston called the "Hub of the Universe?" Because history shows that from it have gone out spokes-men for the weal of mankind, who never tire of doing good for their fellows.