

Agriculture.

STORING POTATOES.

As potato harvesting will now soon be in order, and as the crop will probably be a fair average one, and operations will probably begin rather earlier than usual, we offer some views upon the best mode of sorting them, which may possibly be of advantage to some.

To store potatoes properly we have to guard against heating, for although the potato will not absolutely ferment by heat as so much vegetable matter will, a heap becomes warm enough to excite any germ-fungus there may be in the tuber, and this exhalation may be sufficient to cause a decay, which can be communicated to roots in which no symptom of rot exists. Moisture is favorable to heating, and hence it is best to have the potato thoroughly dry before storing, if any considerable quantity is to be put away in bulk. Thus, if they are spread on a barn floor or other cool place out of the sun, before putting into the root cellar, they will be safe against rotting. When potatoes are perfectly healthy there is not so much necessity for this care in drying. Hundreds of bushels are often taken at once from the field to the cellar without any damage whatever resulting; and it is only in view of the possibility of it that we think it advisable to take the extra precaution in drying. It is well to note that a cool shed is best to dry them in, as the tubers will otherwise absorb more heat than when they come out of the ground, and this is what we try to avoid.

There is one disadvantage in drying potatoes in this way which is always more or less connected with dry cellars, namely, the great loss from shrinkage which results. In an average dry cellar there is often as much as a loss of twenty per cent. in bulk from shrinkage. Thus, one hundred bushels stored away in a place like this in winter will give but eighty when taken out for sale in the spring. This is often as much, and sometimes more, than the advance in spring over fall prices, and is an argument often used to induce growers to sell their crop as soon as taken up, instead of keeping them for the spring rise. But this loss can be wholly avoided and the roots kept in excellent condition by carefully storing in the open ground. A dry place is to be selected, where the water can run easily away, and the potatoes laid up in long narrow ridges, say about four feet wide and as long as the quantity to be protected demands. After the whole has been collected together, a thin layer of straw, only thick enough to keep the earth from falling in among the potatoes, is to be put along the sides and over the tubers, and a thin layer of soil, just enough to keep the straw in place, is thrown over. It is best not to throw more earth than this over at first, as the natural heat of the potatoes will accumulate, while it is the object to let it pass rapidly away. As soon as there is danger of frost, then the potatoes should be covered thickly with soil, as the frost is certain to penetrate. In this way the potatoes are preserved at a temperature but little above the freezing point, and thus guarded against heating much, and at the same time there is little loss from evaporation—a great point gained when the bushel measure is brought out in the spring.

The great objection to the old-fashioned and excellent plan is that we cannot get at them well in the winter season; but we are only recommending it where they are required to be kept over till spring. Where

they are needed before that time a cellar is almost indispensable. Another objection is the extra labor which open-air banking takes. Perhaps the saving of ten or twenty per cent. may be a fair set off at this; but at any rate those who have good root cellars will generally run the risk in preference to the labor of the open ground. But we have referred to the excellence of the plan because some have no good root cellars, and others who have may yet fear rot and be glad to take the best precautions to guard against accident. Only those, however, which are apparently sound should be chosen for the out-door practice, for those which are certainly diseased will be better preserved by an occasional sorting over during the winter season.—*Germantown Telegraph.*

EFFECTS OF DRAINING.

The beneficial effects of draining land are here epitomized by one who has had ample experience, and we advise our readers to give it careful consideration. There is scarcely a farm in Maine, some portions of which would not be benefited by drains to carry off the surplus water, and by an intelligent system of drainage, the productions of many farms would be more than doubled. Drainage has the following effects:

1. It removes the surplus water and prevents ponding on the soil. It should be noted that, if tile drains are used, they should be of sufficient size to remove the surplus water in twenty-four hours.

2. It prevents the accumulation of poisons in the soil, which result from stagnant water, either above or under the surface.

3. The ammonia is carried down into the soil by the descending rain, stored for the plant food instead of stopping on the surface and passing off by evaporation, or borne away with the surface waste.

4. It deepens and enriches the soil by opening the ground, allowing the roots of the plant to go deeper into the earth, decaying after harvest, they form this sub-soil into surface soil, providing resources for the plant more reliable, and making the same ground better for cultivation for a greater length of time.

5. It avoids drought, by enabling the plant to thrust its roots deeper into the soil.

6. The drainage increases the temperature of the soil. In some cases the average has been increased as much as ten degrees.

7. By securing uniformity of condition for plant growth, it hastens the maturing of the crop from ten days to two weeks.

8. It enables the farmer to work his land in wet or dry seasons, and insures a return for the labor bestowed.

With our land thoroughly drained we can carry on the operations of farming with as great success and as little effect from bad weather as any business which depends on such a variety of circumstances. We shall have substituted certainty for chance, as far as it is in our power to do so, and made farming an art rather than a venture.—*Maine Farmer.*

FARMERS, for self improvement, need to awake to their responsibility as men; they need cultivation, interests, care, order and zeal for the welfare of their fellow-beings. The intellectual faculties, the emotions, affections and desires, the will, that constitutes immortality, must be honored as the broadest and highest culture of man as man. A farmer must not be a machine!

Horticulture.

SOIL TREATMENT OF ORCHARDS

If Mr. Wilmot's orchard was mine, and of large bearing trees, and I desired to have it in grass, as his expressed desire to reseed would indicate, I should not disturb the present sod, but would apply a heavy manuring, thoroughly harrow the ground, and then put in sheep in sufficient numbers to keep the grass eaten very close, washing the trees occasionally with some offensive wash to prevent the sheep from eating the bark. I should much prefer my orchard being seeded to blue grass than to timothy and clover, and especially to clover, the roots of which run deep and in dry weather rob the trees of moisture, and injure both trees and fruit. If the orchard is younger, of course it is desirable to cultivate it, and should be plowed very early in spring, just as soon as frost is out, with some good turning plow, with jointer—or skimmer, as some call it—being careful not to plow over six inches deep, and to plow all the land, digging with fork and grubhoe, all grass and suckers away from roots of trees, that could not be reached with plow. Cultivate or harrow at least every week until time for planting, and with thorough culture during summer, there should be no roots of blue grass left alive at digging time. But whether killed or not the first season, give a liberal manuring, plow in fall and spring, and again plant in potatoes (there is no better crop to raise in an orchard) and if well cultivated, the land at the end of the second season would be in fine condition for anything.

If bound to raise some grain crop and re-seed to grass, I should certainly summer-fallow well, sowing to wheat in fall, and seeding to grass in spring following. Wheat, rye, or barley are the only seeding crops at all admissible in an orchard, and of these I prefer wheat. But I would again say, under no circumstances seed an orchard to grass unless going to pasture very closely to sheep and swine. Nor do I believe in the policy of cultivating an orchard three or four years, and then seeding to grass to remain the same length of time, thus alternating in periods of three or four years between cultivation and grass. When an orchard remains in grass, if properly enriched, the surface soil becomes entirely filled with small, fibrous, feeding roots, and I should by all means manure heavily; occasionally apply a dressing of wood-ashes, salt and bone-flour, feed very close, and let it remain. On the other hand, when we give constant cultivation, we keep the surface mellow and rich, and the continual disturbance keeps these small, feeding roots further beneath the surface. I prefer constant cultivation, enriching the soil as often as necessary, to this constant changing, or to seeding even, unless we are fully determined to feed the grass very close all the time. After our orchards are of bearing age I think we should be contented to grow one crop on the land at a time, and of course that crop should be trees, and we should treat them in all respects so as to secure the largest yield of the finest fruit.—*J. S. Woodcock, in Am. Wine and Grape-Grower.*

THE SECKEL PEAR.

The *Canadian Horticulturist* for September had a colored plate representing the original pear tree from which the thousands of the excellent Seckel Pear trees in the United States and Canada sprang. The *Horticulturist* says:

"It is a tree to be held in remem-

brance, one to which the lovers of pears of high quality might well make a pilgrimage, and standing with bared heads in the presence of this ancient tree, reverently look up upon its time-scared branches, and count the generations that have gathered its luscious fruit for mayhap two centuries gone. This picture is copied from a photograph taken in 1880, and published in the *Gardener's Monthly* for September of that year. At that time the trunk was a mere shell, one half of it entirely gone, but Mr. Bastian, the owner, who first knew it forty years ago, said it was much the same when he first knew the tree as now. It measured at three feet six inches from the ground, five feet four and a half inches in girth around the half trunk and across the exposed diameter, and was twenty-six feet high. No one knows who planted this old pear tree. Perhaps it was never planted, but Topsy-like, it "grewed"; and the imaginative reader may draw such portrait as fancy pleases of the one who dropped the seed in the fertile soil, in the long time ago, whence sprang this tree. Downing says that the late venerable Bishop White used to say that when he was but a lad, a well-known cattle dealer of Philadelphia, known as "Dutch Jacob," used to present his neighbors with pears of an unusually delicious flavor, but would never divulge the place where they were procured. In course of time "Dutch Jacob" purchased from the Holland Land Company the parcel of ground on which stood his favorite pear tree, but as time rolled on it came at length into the hands of Mr. Seckel, who introduced the pear to public notice, and after whom it was named. The farm now belongs to Mr. Bastian, who has owned it for more than fifty years, and was told when he moved there that the Seckel family had known the tree for eighty years before.

In 1819 this pear was sent to Europe, and the fruit pronounced by the London Horticultural Society to excel in flavor the richest of their autumn pears. Downing, who is esteemed to be the highest authority in regard to American fruits, thus speaks of this pear:

"We do not hesitate to pronounce this American Pear the richest and most exquisitely flavored variety known. In its highly concentrated, spicy and honeyed flavor it is not surpassed, nor indeed equalled, by any European variety. When we add to this that the tree is the healthiest and hardiest of all pear trees, forming a fine, compact, symmetrical head, and bearing regular and abundant crops in clusters at the ends of the branches, it is easy to see that we consider no garden complete without it. Indeed, we think it indispensable in the smallest garden. The stout, short-jointed, olive-brown colored wood distinguishes this variety, as well as the peculiar reddish-brown color of the fruit. The soil should receive a top-dressing of manure frequently when the size of the pear is an object."

We have found this tree to be quite hardy in our Canadian climate, and remarkably free from the disease known as pear-blight; but while other varieties have perished and passed out of sight, this has continued to flourish and yield its annual crop of delicious fruit."

Unlike other cathartics, Dr. Pierce's "Pellets" do not render the bowels constipated after operation, but, on the contrary, establish a permanently healthy action. Being entirely vegetable no particular care is required while using them. By druggists.