



SWEET POTATOES.

We find in the American *Agriculturist*, for April, an article on the growing of sweet potatoes, in which the editor says:

During the past three years, we have had good home-grown sweet potatoes, produced with little trouble, and cheaper than we could buy them in the New York markets, to which they are brought in abundance from the Southern and South-middle States, and sold at moderate prices. Last year a garden plot yielded at the rate of 480 bushels per acre, and there was no reason why a full acre or ten acres, should not have yielded at the same rate. The soil was of but medium quality, neither light nor heavy. It had a moderate quantity of manure worked into the surface. The manure was a month old compost, made of about four parts of muck to one of horse and cow manure from the stable. We attribute our success in latter years to the method of cultivation. The sweet potato, to be sweet and mealy and to grow vigorously, needs a warm, dry soil, with plenty of sun. To secure this in our latitude, on a soil not clayey, but yet not sandy, we plant in high, round hills, which let in the warmth of the sun and warm air on all sides, and secure at all times perfect freedom from water. For garden culture we proceed thus: After preparing the ground well, as for other potatoes, sticks one foot long are set up about three feet apart each way to mark the center of the hills. With a hoe or shovel the earth is then thrown up around the sticks on all sides, so as to form round hillocks, eight to ten inches high. (In field culture a plow run twice in furrows each way, will do the hilling more economically.) When two or three rows of hills are made, the sticks are drawn out, and used for other hills. As soon as all danger of frost is over, and the ground warm, the plants are set—one strong or two weak ones in the center of each hill, in the holes left by removing the sticks, using a little water, if the ground be dry. They can be set almost as fast as hills of common potatoes can be planted. No further care is needed, except to keep the ground free from weeds, as for other hood crops. The vines grow slowly at first, but buy after a time they run vigorously, and are at all times ornamental. The plants we have usually bought in the market at a trifling cost. We shall this year raise our own plants thus: The last of March or early in April, the potatoes are put in soil in the hot-bed, or, if need be, in a box of rich earth set in a warm place. They send up a multitude of sprouts with roots attached; these sprouts are broken off from the tubers, for setting out at the proper time.

Subjoined are some extracts from a communication from Mr. J. C. Thompson to the *Agriculturist* on the culture of the sweet potato, as follows:

"Sweet potatoes may be grown in hills or in ridges; the latter requires least labor. Light, sandy loam is best, because it is dry and warm, but small tubers may be produced on quite stiff land, and even on sward or old pasture land thus: Turn two furrows nearly together to form the center of a ridge once in three feet, filling in the open space between the upturned furrows with a light, rich compost to form the center of ridge and set the plants eighteen inches apart. It is better not to disturb the ground under the ridges, for then the tubers will not grow long downward, since they meet the hard soil, but they increase in diameter and become nearly round, which improves their appearance and quality. The secret of getting round smooth, chubby, sweet potatoes, instead of long, slim things is to have a hard bottom under them. Fine or half-rotted manure will do, using it in the whole soil, or in the hills or ridges, in the same quantity and manner as for the Irish potato. The best time for planting is toward evening, using a little water in the holes, if the ground be dry, covering it over with dry earth, to absorb the excess and prevent baking. If in rows in the garden or field, these should run north and south; as the vines extend, lay them lengthwise on the rows, to allow the sun free access to the sides. Last season I planted sweet potatoes in rows four feet apart, with rows of carrots between, and from a plot fifty by one hundred feet obtained 17 barrels of sweet potatoes and 48 bushels of fine carrots. Three feet is the proper distance apart for the vines when grown alone, with the plants set sixteen to eighteen inches apart in the ridge. The *Nansemond* variety is best for the North. In August and September the largest potatoes may be taken out for use, leaving the smaller ones to continue growing. Run the finger into the ground near the stem, and when a large tuber is found, remove a little of the earth, detach it from the stem, take it out, and place back the earth. When frost kills the vines, choose the first clear, dry day, dig until noon, let the tubers lay on the ridges to dry, and before dew falls, pack them in barrels in the field, with plenty of dry, cut straw, and then store the barrels in a moderately warm, dry place for winter."

It is believed by many who have had ex-

perience in the growing of sweet potatoes in the East, that they can be successfully cultivated in most of these valleys, and why greater exertions have not been made to introduce them into the State, particularly into those parts of it most favorable for their production we are not advised. With existing facilities, potatoes for planting in any desirable quantities can be imported readily and safely if properly put up; and it is a matter of some surprise that so little interest has been manifested in relation to their introduction and culture, which, if successful, and of that there is but little doubt, would be a valuable addition to the tuberoses cultivated for general use, and contribute largely to the sustenance of life. They are deemed a luxury by many, and in states and countries where they are easily raised, they constitute one of the principal articles of food.

The culture of sweet potatoes was commenced in Washington County some two years since, the seed having been brought from Lower California, but it is understood that no great progress has been made in the business and but few have, as yet, been grown. The impetus that has been and will be given to matters and things in that part of the State, by the recent addition to the population of many of the most energetic and experienced farmers from the older counties, will, of course, tend greatly to the development of the agricultural resources of the country, and not only the *Convolvulus Batatas*, but many other exotics will be produced there abundantly, and from thence introduced into other parts of the State.

PRODUCTION OF SORGHUM SUGAR.

An experienced sugar grower, of Canonsburg Pa., but late of Jefferson City, Mo., in a communication to the *Missouri Republican* some months since on the subject of producing sugar from sorghum says:

In many parts of the West, syrup of a good quality has been made from the Chinese cane, but people have been slow to realize the fact that a certain and abundant yield of a good quality of sugar can be obtained from this plant.

Mr. J. S. Lovering, whose experience and skill as a refiner rendered him a competent experimenter, from repeated trials in 1857 with the juices of canes grown by himself, estimated the probable yield per acre at 1,466.22 pounds of sugar, and 74.39 gallons of molasses. Since that time no published statements of actual experiments have led the public to believe that such results were attainable uniformly, and by appliances within the reach of people of ordinary means. Since then, there have been repeated experiments with repeated failures, and occasionally an example of success, but nothing like uniformity of result has been claimed.

The writer of this has been informed of no instances in which sugar has been obtained from every portion of the stalk of the plant, nor with certainty and regularity from any part of it.

The following statements, based upon a great number of experiments made by myself with great care, are given to the public with great confidence in their accuracy:

1st. Crystallizable sugar can be readily extracted from any portion of the stalk of the Chinese cane, when completely ripe—from the extreme tops as well as the lower joints; the juice from the lower parts of the stalk being, however, more abundant, richer in sugar, and more pure.

2d. The soil best suited to its sugar-producing qualities is a light, well-drained, sandy loam, in a climate the mean summer temperature of which is about 75 deg. Fahrenheit. It will ripen often when the summer mean does not fall below 70 deg., as at Pittsburgh, Penn.; Cleveland, Ohio; Chicago, Ill.; Madison, Wis., and Southern Minnesota, but along this line it is more uncertain. The summer isotherm of 75 degrees, passing through Washington City, Louisville, Ky., St. Louis, Mo., and Leavenworth, Kansas, defines a limit, along and south of which it will ordinarily ripen perfectly and early, and it will often mature perfectly two degrees north of that line.

3d. In such soil and climate, and with suitable apparatus, the yield of crystallizable sugar will vary with culture, &c., from 1,400 to 1,800 pounds to the acre, and molasses from 75 to 100 gallons.

4th. Such results are to be attained by no empirical means, but require such a theoretical and experimental acquaintance with the process of sugar manufacture as is possessed by the most intelligent cultivators of the Southern cane—to which plant the sorghum in the chemical character of its juice is very closely related. And it should be borne in mind, that however easy the routine of sugar production from either plant may seem, there are difficulties which beset the whole process in practice on the large scale with which no inexperienced person or reckless experimenter can successfully cope. Good results cannot be secured except by intelligence and care in the cultivation—and especially in the expression of the juice and the use of such aids, mechanical and chemical, in the clarification, filtration, evaporation and crystallization of the juice, as the peculiar nature of the material

acted upon, and that of the product designed to be obtained, shall require.

5th. With the aid of suitable method and materials no more difficulty attends the manufacture of sugar from the Chinese than from the Louisiana cane; the expense of the former is much less, the product equal if not superior in quality, and in quantity nearly equal. As to the methods practiced, I may say that I have succeeded uniformly in obtaining a good article of brown sugar from ripe cane, by the process used by the sugar growers of Louisiana, (without vacuum pans,)—by the method recommended by Mr. Lovering—by the method of Wray, and an article of much finer quality, both as sugar and syrup, by a new process of my own. I reserve for another occasion an estimate of the comparative value of these methods and other details. Permit me to add that during a residence of nearly three years in the valley of the Lower Missouri, I have been convinced that in that rich and picturesque but much neglected region, is the future seat of a new department of Western industry, which will one day contest the palm of production with Louisiana herself. The climate is all that can be desired, and for such a purpose the soil which covers the beautiful bluff highlands all along the river from Kansas to its mouth—a peculiarly rich pulverulent, silicious loam—I believe to be unmatched.

Fruit Trees.

The prospects for fruit in Great Salt Lake Valley were never more promising than they are this season. Although late in blooming, in consequence of the cold stormy weather, the trees as a general are healthy and suffered less from the effects of frost during the winter than usual. Apple, plum and apricot trees especially were uninjured, and we have not seen a sickly or decaying tree of either of those kinds this spring, unless it has been some one that had been browsed or injured by stock. Peach trees as usual, excepting in favorable positions, were somewhat injured but not to that extent they have been some seasons and as a general thing, both on high and low grounds, all the trees which are old enough to bear fruit are as full of blossoms as they can well be, and in some orchards, if there be one-half as many peaches grow as there are blooms, there will be more than the trees can support, and the fruit will be of an inferior kind unless thinned by trimming, which should be done by cutting off the inferior, diseased and useless branches and the top rather than the lower ones, as the lower fruit trees are, of all kinds, in this country the less they are exposed to the high winds of summer and the chilling blasts of winter.

Heavy Fleeces.

The Knight's Landing News of April 19th says that Mr. J. W. Brownell, of Yolo County, California, had, the week previous, sheared five imported Merino sheep, which yielded 106 pounds of wool. The largest—a French merino ram—produced 35 pounds for an 18-month fleece. The other four—three ewes and a ram of the Spanish merino breed—produced 71 pounds, or an average of 17¾ pounds each. They were two-year old sheep, and the fleeces one year's growth. All of the wool was of the finest texture and long staple. Estimating the wool at 40 cents per pound—a low figure for this quality—and we have from the Spanish sheep \$7 10 as the yearly product for each, more than the price of four sheep, wool, carcass and all, of the common breeds; and the difference in the feed consumed, between a fine and coarse sheep, is a trifle nothing. If any difference, it is in favor of the finer breeds.

Grafting the Grape Vine.

We have met with many experienced persons who have never seen the grape vine grafted. The process is so easy, that thousands who are anxious to possess the newer varieties, should especially take care of their old roots and insert scions of the new. No clay or covering of the grafted part is necessary, beyond the natural soil below which the graft is to be inserted. Saw off your stalk and put in your scion with two or three buds, wedge fashion, as in the cleft-grafting of fruit trees, and then cover up a few inches, leaving one or two buds above the ground; where the stalk is very large, and convenient to split, a gimlet-hole so made as to bring the two barks together answers. The sprouts of the old stalk, as they spring up to rob the graft, must be pulled off. Grafts often bear some fine clusters, the first season of growth, and many more the second. In this way the old stalk of wild grapes removed from the woods, are very useful with due care. We have lately seen an old Catawba vine that was wanted for shade forty feet off, laid down for one year till it had rooted well, and then was grafted with with perfect success, and fruited the first year.—[Horticulturist.]

Boiled Corn for Hogs.

A correspondent of the Cincinnati *Gazette* says:

I have just killed the hogs I was feeding corn to, and can now more accurately determine the value of that kind of food. The reported experiment of Clay, of Kentucky, wherein he states that the gross pork made on boiled corn cost one cent nine mills per pound, valuing corn at 28 cents per bushel, and that made on dry corn costs four cents eight mills, is, from some cause, very incorrect. I feed sixteen hogs but little more than half the time usually considered necessary to fatten them; and about half the quantity of corn. Of these hogs two were fully grown, and were well fattened, but not so much as hogs fed three months to as much corn as they will eat. The other hogs were not grown, and were not as fat as these two, but were excellent pork, and made a rapid increase in weight during the time I fed them. I am the more confirmed in the opinion that boiling corn on the ear is a saving of at least one-third, and perhaps as much as one-half, but not more. This is from 30 to 50 per cent., but according to Clay's experiment the saving is nearly 300 per cent. The hogs I fed were a cross of Poland, white Chester and Suffolk, a very excellent cross. The hams a d should be as square and heavy; but the Suffolk cross inclined the accumulation of fat to the shoulders, instead of the sides.

Description of Rome.

One of the new chapters of Mrs. Stowe's "Agnes of Sorrento" contains the following beautiful description of Rome:—

"A vision rises upon us from the land of shadows. We see a wide plain, miles and miles in extent, rolling in soft billows of green, and guided on all sides by blue mountains, whose silver crests gleaming in the setting sunlight tell that the winter yet lingers on their tops, though spring has decked all the plain. So silent, so lone y, so fair is this waving expanse, with its guardian mountains, it might be some wild solitude, an American prairie or Asiatic steppe, but that in the midst thereof, on some billows of rolling land, we discern a city, sombre, quaint and old—a city of dreams and mysteries—a city of the living and the dead. And this is Rome— weird, wonderful, ancient, mighty Rome once by physical force and grandeur, mightier now in physical decadence and weakness by the spell of a potent moral enchantment.

"As the sun is moving westward the whole air around becomes flooded, with a luminousness which seems to transfigure itself with pervading presence through every part of the city, and make all its ruinous and mossy age bright and living. The air shivers with vibrations of hundreds of bells, and the evening glory goes up and down, soft-floated and angelic, transfiguring all things. The broken columns of the Forum seem to swim in golden mist, and luminous floods fill the Coliseum as it stands with its thousand arches looking out into the city like so many sightless eye-holes in the skull of the past. The tender light pours up streets dark and ill-paved—into noisome and cavernous dens called houses, where the peasantry of to-day vegetate in contented subservience. It illuminates many a dingy courtyard, where the moss is green on the walls, and gurgling fountains fall into quaint old sculptured basins. It lights up the gorgeous palaces of Rome's modern princes, built with stones wrenched from ancient ruins. It streams through a wilderness of churches, each with its tolling prayer-bell, and steals through painted windows into the dazzling confusion of pictured and gilded glories that glitter and gleam from roof and wall within. And it goes, too, across the Tiber, up the filthy and noisome Ghetto. Here, hemmed in by ghostly superstition, the sons of Israel are growing without vital day, like wan white plants in cellars; and the black mournful obelisks in the cypresses in the villas around, it touches with a solemn glory. The castle of St. Angelo looks like a great translucent, luminous orb, and the statues of saints and apostles on the top of St. John Lateran glow as if made of living fire, and seem to stretch out glorified hands of welcome to the pilgrims that are approaching the Holy City across the soft, palpitating sea of green that lies stretched like a misty veil around it."

CHIROGRAMMATOMANCY.—A German writer—Adolph Henze by name—has just published in Leipzig a book entitled "*Chiogrammatomancy*," intended to prove that a person's character may be suggested by his writing, for, says the author "handwriting is the faithful and unalterable hand of a mental clock; it is the wondrous telegraph of the mental being; it produces a daguerreotype of the internal workshop, and supplies us with the key to the most hidden secrets of the mind and the heart." Mr. Henze maintains—with proofs from his collection of 60,000 autographs—that all good-humored poets write with a smooth hand, and all savage ones with a spluttering hand, and advances many other similar theories or, shades of theory.

—Louis Napoleon has commenced to decorate the banks of the Seine in Paris, with statues of eminent civilians, Fenelon, Montesquieu, Arago and others.

—It has been so muddy at Cairo this spring that the soldiers call the soil which adheres to their boots, "bounty land" which they have "drawn."