

## FOR FARMERS AND GARDENERS.

**THE GARDENS** in various parts of the city are in a flourishing condition; tho', on account of the unusual pressure of work, the weeds, in some of them, occupy pre-eminence altogether inconsistent with the acknowledged good taste and perseverance of our gardeners.

During an agreeable visit to Mr. William Wagstaff's gardens, two or three days since, we found vegetation generally in a very forward state, considering the locality—3d Ward, on the State road, about one and a half miles from our office—where the ground is somewhat cold and the season is later than on the uplands; but, nevertheless, there are some advantages in cultivating the lowlands—the ground is rich and mellow, does not require so much irrigation and heavier crops are raised with less labor than on the higher and more gravelly lands.

But we are now at Mr. Wagstaff's. Here, but a few years ago, was, at certain seasons, but a desolate and seemingly irreclaimable marsh. Even now, after draining, water is obtained within three feet of the surface. However, here are cabbage, beets, carrots, tobacco, peas, tomatoes and all the various vegetables commonly cultivated, growing in the greatest perfection and generally more advanced than in many of the upland gardens; and all this the result of untiring exertion and the practical application of well-founded theories, based on long experience.

In the line of fruit culture, he has a fine young orchard, composed of apple, plum, apricot, peach, etc. The peach, however, is not suited to the lowlands, though a few may now be seen on his trees.

We were gratified to notice his success in root-grafting, of which several hundred healthy shoots give abundant evidence. This is a system which is on some accounts preferable to the common practice of stock grafting, especially among us, where it is so difficult to obtain choice varieties on their own roots. By this system we are enabled to propagate on their own roots the choice cuttings received here, often at considerable expense, from other parts of the world.

The process of root-grafting is very simple and may be easily learned and successfully practiced by almost any one who has enterprise enough to set out an orchard. We doubt not that Mr. Wagstaff, as also others who understand it, would freely impart any information that might be desired, relative to that matter and, indeed, in relation to anything pertaining to the cultivation of the soil, so far as their knowledge extends. If there be any who feel differently, such are not worthy of patronage, neither have they at heart the interest of the community.

The variety, size, flavor and yield of his currants surpassed anything we have yet seen in the Territory. One yellow currant measured *two inches* in circumference. We saw many bushes of the same variety, the currants on which, when ripe, would average, in circumference, one inch and a half. The black currants were large and of good flavor; but there was a smaller currant, of a drab color, particularly attractive for its sweetness, which Mr. W. thought he could much improve in size and probably in flavor also. The seed of this variety was brought from the Platte River plains.

The bushes, almost without exception, were filled with fruit to their utmost capacity—some even to total prostration. A correct idea of this uncommon yield may, perhaps be better conveyed by quoting the language of a gentlemen who lately visited the garden of Mr. Wagstaff, when he exclaimed, "It is all currants and no bushes!" Among the varieties from Patent Office seed, we noticed the Sword Pea, having a long, sword-shaped pod, well filled with good sized peas and comes into bearing before the Marrowfat. Some varieties of cabbage, from the same source, looked promising; yet none of them surpassing Adams' Early, grown by Mr. Watt.

The California Ground Cherry thrives well here.

Before leaving Mr. W's we will state that, in cultivating his currants, he has adopted the bush form—cutting off all side shoots and leaving a stem, trunk or pole a foot or eighteen inches long, thro' which the sap is dispensed to the branches; instead of being distributed among a dozen or more stems, all springing from the same root. The plan here recommended is, in our opinion, the handsomest way of cultivating the currant and, aside from inducing the largest growth of fruit, greatly facilitates the gathering.

A large number of the California grape cuttings were in a flourishing condition. This is an excellent grape and, though not so hardy as other varieties, may be profitably cultivated till the Territory is supplied with the Catawba, Isabella, Concord,

etc., which, there is reason to hope, at no distant day, will be accomplished.

**Fruit and Fruit trees.**—We took a stroll thro' Elder W. Woodruff's garden last week and were at once pleased and somewhat vexed—pleased to behold his fine assortment of fruit trees, and vexed when observing that, with few exceptions, these trees were almost destitute of fruit, though, as Elder W. told us, they blossomed fully and, a few weeks since, were apparently overloaded with fruit. What can be accomplished by an untiring exertion and patience is encouragingly exhibited here.

For the gratification and benefit of our readers who take pleasure in hearing of our progress, as a people, in the fruit department, we will here enumerate some of the varieties now in bearing in Elder Woodruff's orchard:

**APPLES**—R.I. Greening, English Russett, Twenty Ounce, Sweet Summer Pearmain, Winter Pearmain, Red June, Golden Sweet.

**PEACHES**—Carrington's Early, Large Yellow Cling, Woodruff's Mountain Sweet.

**APRICOTS**—Choice varieties grown from seed from Prince Albert's garden in London; also Carrington's.

**PEARS**—Bartlett; also another, name unknown to Elder W.

**PLUMS**—Green Gage, Sweet Damson, Large Blue; besides fine wild plums from Kanessville, Iowa, on which the above are budded.

**GRAPES**—California, in full bearing; Woodruff's Early Clear White Seedling; Isabella and Catawba. The two last named he is bedding for propagation.

**CURRENTS**—English Black, grafted on the native; also native, very fine, yellow and black.

He had also in bloom, this season, the Large White Damask Double Rose.

**Hungarian Grass.**—A very fine patch of this grass is now growing on the lot of Mr. A. P. Rockwood, nearly opposite the Social Hall. Those who have not yet seen the Hungarian grass will there have a good opportunity of viewing it.

It will be remembered that Mr. Rockwood's lot is situated on the hill-side, that the soil is excessively stony, dry and very shallow.

We were informed by Mr. Rockwood that he has several acres planted in this species of grass, having planted on three or four different kinds of soil—the low, wet, mucky, the clayey and the gravelly upland—to test which is best adapted to the Moha. He says that, thus far, that sown on the low, mucky land looks best; although, as will be seen from examination, the piece near his residence, on the rocky bench land, presents a flourishing appearance and will doubtless well repay the tiller's toil.

For three or four years, on a small scale, this excellent grass has been grown in Utah—and had due care been taken of the seed, the Territory might have been pretty well supplied with it, ere this; but, instead of saving the seed, so valuable while scarce, most of the farmers who were fortunate enough to obtain it, thoughtlessly fed it to their animals, seed and stalk. This should not have been done. Mr. Rockwood, however, and perhaps one or two others, carefully thrashed out, cleaned and preserved the seed, which readily sold for eight dollars per bushel—thus satisfactorily remunerating him for his labor and at the same time conferring lasting benefit on the community.

The present season there are probably ten or twelve acres of the Moha growing in this vicinity. Whether there was any sown last spring in other counties, we do not know. At all events, we say to every man who has a plot of ground sown with Hungarian grass: carefully attend it, harvest it accordingly to the directions already given in previous numbers of the *News*, save all the seed and sell it at reasonable rates—say two or three dollars per bushel. We doubt not it can be raised as cheap as oats.

When the excellence of this grass is generally known, it will be largely cultivated for fodder and the fact that it grows well on dry, gravelly soils will render it, in such localities, a standard substitute for other cultivated grasses that require moist soil and continual summer showers to sustain them. Besides all this, it is our firm conviction, from various considerations, that the Hungarian grass is the most profitable variety that can be cultivated for fodder, whether on high or low lands; and we repeat, by all means save the seed till every farmer in the Territory is supplied with it.

Farmers who are making experiments or adopting means to arrive at the yield per acre of a given variety, under different modes of culture, etc., will confer a favor on us and the community at large by reporting to us the various results.

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## A Treatise on the Present State of Horticulture in Utah.

BY E. SAYERS, HORTICULTURIST.

No. 7.

## THE HOP GARDEN.

In treating on the culture of the hop I shall refer to my early days. Being a native of the vicinity of Canterbury, Kent, England, and my father having been a considerable planter, the care of the hop-garden fell to my charge. I shall therefore in this part of my treatise follow the system adopted by the Kentish hop planters.

The *Humulus* or hop being a *diœceus* plant, having male and female flowers on distinct plants, the male plants are of no use to the planter, being by nature designed for no other purpose than to fertilize the female; hence it is that the female hop exclusively is cultivated—it being customary with the planter, if by chance a male find its way into the garden, to immediately root it out as useless.

## VARIETIES.

There are several varieties of the cultivated hop. The primitive or original, which is called the Flemish or red vine, is supposed to have been first imported from French Flanders. This variety has long, straggling branches, with the hops growing in pairs. They are large and coarse, of poor quality and not worth cultivating.

There is also another variety of the same type, called the Ruffler, a large, coarse variety, with the singular habit of having small green leaves growing between the leaves or chives of the hop.

## RUNNING WILD.

When a hill of hops "runs wild," as it is called, it returns to its primitive state—into either of these varieties—and is marked at the time of picking for being rooted out as useless.

## THE CULTIVATED VARIETIES

Are, first, the Canterbury White Grape, which is universally cultivated as a standard variety for the London porter brewers. This variety has fine large bunches, in form like bunches of grapes; the hops are of a moderate size, white, of an oval form, small cored and are of the very best quality.

2d. The White Early Grape, comes into maturity ten days before the above, is a larger hop, of a bright white color; large bunches in form of bunches of grapes, of good quality and is well adapted for fine pale ales, for which it is used. The planter manufactures this hop and packs in pockets for the London merchants, who export it to all parts of the kingdom for private brewing to make fine ale.

There is another of the same variety called the Green Grape, the bunches being more closely set with large green hops of a coarse, inferior quality; the only good property of which is, its hardness and bearing when other varieties fail from the hop blight, insects, etc.

To the above may be added several sub-varieties of hops; as, the Born Grape, Farnham, etc., merely arbitrary, assuming names of cultivators, places of growth, etc.

## PREPARING THE GROUND FOR THE HOP GARDEN.

The culture of the hop is so general in Kent that almost every kind of land is chosen for the hop garden; although the hop, like every other production, gives the best produce on a rich, well-cultivated spot of land. A rich hazel loam of a good, mellow subsoil is the best land for the culture of the hop. The year previous to planting, the planter prepares the ground by plowing into it in the fall a heavy coat of good rich manure; plants the ground with potatoes and gives extra culture during the season to prepare it for planting the hop.

## PLANTING THE HOPS.

Early in the spring the ground is prepared for planting by plowing it deep and dressing it down fine and level. The ground is then set out for planting. This is done by squaring off the ground, when a garden line is laid on the outside row. This line is marked at equal distances with red worsted tied in the line to show the place of the hills. When the line is properly placed, the planter marks off the place for the hop-hills by putting in a small stick exactly at the red marks of the line which gives the proper distance from hill to hill when planted. When the outside line is laid out, the line is placed to the second row and marked off in the same manner. When the whole plot is thus marked off, the hills will be in straight lines as correct as a checker board, which is necessary, because the hops are to be cultivated by horse culture each way of the garden, after planting.

## DIFFERENT METHODS OF PLANTING.

There are several different plants of the hop, as the planter calls it, viz., 1,500, 1,000 and 750 hills to the acre. The 1,500 to the acre are planted in lines so that the hills are separated double the distance between the rows. The 1,000 and 750 to the acre are what is called the "square plant," which is so arranged that the hills are equal distances apart, each way.

## NUMBER OF POLES.

Three thousand poles is the given number for an acre of hops; hence, the first plant of 1,500 hills to the acre will require two poles to the hill; the second, of 1,000, will require three poles to the hill and the third, of 750 hills, four poles to the hill to give a full complement of poles.

## PREPARING THE HOLES.

When the ground is laid out, a laborer digs out small holes where the sticks are placed for the hills, and another follows, filling the holes with good prepared compost of well rotted manure. This done, the ground is ready for planting.

## PLANTING

Is done by putting two cuttings or sets into a hill with a dibble. The cuttings are prepared from the straws or cuttings taken from the old hills at

the time of cutting the hops. These cuttings are prepared precisely the same as grape cutting, taking off the top so as to leave two or three buds or eyes to each cutting. When planted the ground is kept constantly hoed, the hills worked round and everything is done relative to good culture to encourage the healthy growth of the young plants.

It is generally customary for planters to plant a row of potatoes or other low growing vegetables between the rows of hops the first year of planting.

## SECOND YEAR'S CULTURE.

In the winter when the ground is frozen hard, a quantity of well rotted manure is carted on the ground for the purpose of putting into the hills in the spring.

## CUTTING DOWN THE HOP.

Early in the spring when the ground is in good condition, the hills are prepared for cutting by taking off the earth clear to the crown of the hill preparatory to cutting or pruning the hops. For this purpose the hop-cutter has a sharp, crooked pruning knife. The work is performed by taking hold of the tops or straws of the shoots of last year's growth and pulling up all runners close into the crown or top of the hill; he then cuts off every shoot close into the hill to one eye, or more properly two eyes, or buds, as they are in pairs. This is the first formation of the hop hill.

After cutting a second follows and covers each hill with a shovel full of the rotten manure. This done, the garden is ready for digging.

## DIGGING THE GROUND.

When the hops are cut and the hills are manured, the ground is neatly dug over with a three-pronged spade, made for the purpose. This done, the next thing to be done is to stick the hops, which is done by placing in the ground one stick cut for the purpose about four feet long, to each hill. When the plants begin to make vines, they are neatly tied to the sticks with rushes, by women, who tie the hops at a certain price per acre.

## CULTURE.

The manner of culture is the same as the first year—keeping the ground loose and free from weeds, and every thing is done for the encouragement of a strong, vigorous growth of the young plantation. In the fall the sticks are cleared from the garden, the hops are picked and a quantity of manure is carted on the ground for manuring the hills in the spring as in the preceding year.

## THIRD YEAR'S MANAGEMENT.

Early in the spring the hills are uncovered the same as before stated, the shoots are cut, the hills replenished with manure, and the ground is again dug preparatory to poling.

The hops are now arrived at an age for bearing a crop of hops, and poles of from 12 to 14 feet long are placed to the hills at 3000 to the acre which gives two poles to the hill of 1500 plant, three poles to the hill of 1000 plant and four poles to the hill of 750 plant, the poling the hills being performed by the workmen making holes with an iron crow-bar by the side of the hill in such a manner that when poled they form straight lines each way of the garden.

When the holes are made, the pole is inserted by throwing it in the hole with a smart jerk, by which it is fastened to the ground.

The first thing to be done after the poling is the thinning out, regulating the young vines and tying them to the poles, in which the person leads two of the best young shoots in the hill to each pole and ties them neatly with rushes. She then pulls out all other shoots and runners that come from the hill.

As the season advances and the vines make their growth they are daily looked over and tied to and led up the poles in a regular manner until each pole is well furnished and there is no more need of tying and the vines run up the poles.

## GENERAL CULTURE.

The culture of the hop garden is one regular routine—namely in cutting the hops early in the spring, digging the ground, poling, tying up the vines to the poles, etc. The ground is often loosened by stirring with a small one-horse plow, harrowing it fine and level, and a continual use of the hop cultivator between the rows; the hills are also hand worked by digging round each hill, which is called rounding and is done to keep the ground loose and mellow. This is done when the vines are fairly started; when a little more grown, the hills are again dug round and while doing this the workman forms a small hill, digging around in such a manner that the earth lies highest in the centre. This is done to nourish the young, fibrous roots and give strength to the vines.

## THE GROWING SEASON.

During the season of growth everything is done to add strength and vigor to the vines; indeed there is nothing more highly cultivated and better cared for than a hop garden.

The Budding Season has again come and should not pass without improvement. Get some choice cuttings from your friends, sharpen your knives and enter upon the labor of improving (not destroying) your orchards, all ye that have them! Those who have not, should not let another season pass without setting out one. If no more, plant on your lot at least one tree that will bear fruit, that you may rejoice in the fruits of your own labors.

In answer to a question, "How long will the Grape Vine live?"—the editor of the *Genesee Farmer* replies:

So long that we can not answer your question. It will live as long as the oak. Pliny speaks of a vine which had existed 600 years. There are vineyards in Italy