

The first and most important point, is to select a piece of ground which is *always* moist, even in the severest summer droughts; and if it has a stream running through it which could be dammed, and in which you could place a small draw gate in order to flood or drain at pleasure, so much the better. Stagnant water will soon kill the vines, consequently ponds or puddles having no outlets or current, should be avoided.

Second. Having selected a spot as described, unless the soil be nearly a pure *sand peat*, it will be necessary to remove the entire surface to the depth of several inches; or, if preferred, to cover the existing soil to the depth of three inches with either sand or peat. Any attempts to raise cranberries upon a clay soil must prove futile: they may be raised upon a sandy loam, but the poorer the better, for the presence of either animal or vegetable matter in the soil produces a redundancy of *vine*, but an almost entire failure of *berries*.

Third. It is very necessary, after having set out the vines, that they should be kept clean from weeds and grass for the first two years; after which they will so completely cover the ground as to require no farther attention on that score.

Fourth. Be very careful in your selection of vines for planting, otherwise you may have a flourishing growth, but no fruit. None but one experienced in the cultivation of the cranberry, can select the *healthy* or bearing from the *unhealthy* or barren vines; especially as the latter have much the most attractive appearance, being stronger and greener than the fruitful vines. To accomplish this, it will be necessary either to select from a yard which you have seen in good bearing, or to buy of a dealer in whom you can place implicit confidence.

The cranberry vine is very hardy, and when once fairly rooted, needs but little farther attention. Its manner of growth, starting from the root, is to throw out a runner of from two to five feet; from this springs upright stems or shoots from four to six inches in length, on which are borne the berries. With each succeeding season these runners extend in length, producing new uprights—the stems of the previous year increasing in length and continuing in bearing, until the ground is entirely covered or *matted*, as it is technically termed.

Like all other plants, the cranberry is liable to the attacks of certain insects, which either injure the vine or destroy the berry. The *worm* attacks the new growth at or about the time of blossoming; it does not attack the old growth, but commences at the base of the new and works upwards. Its presence is at once known by the appearance of a fine web which encircles the upper portion of the plant. The *fruit worm* is the most destructive, making its attack on the berry about the last of July, or beginning of August. The only remedy known to save the vines from these two insects is *flood*ing, and without facilities for this, the grower will suffer severely.

The crop is gathered about the first of October, when the berry is fully ripe, and before it has been touched by severe frosts. Hand-picking is generally done by women and children, but it is both tedious and expensive; and where a large yard is to be gone over, out of the question. Raking or scooping the berries is decidedly the most expeditious manner, although it is objected to by some as being destructive to the vines. This may be obviated by raking always in one direction, and will also be of

some advantage by thinning out the vines when they become too densely matted.

Any estimate as to the cost of putting in an acre of cranberries, must of course depend upon the locality of the place, and the facilities which the neighborhood affords for procuring vines, labor, seed, &c.; consequently it would be almost useless to give the expenses attendant on reclaiming swamp lands, or irritating dry localities; each farmer it is presumed being as well posted up as the writer.

In the locality from which I write, in Burlington county, N. J., which seems to have been intended by nature for the cultivation of this berry, and where the wild vines are found growing on all the low grounds, producing berries as fine in appearance and superior in flavor to the best cultivated berries grown in Massachusetts—the cost of bringing an acre into cranberries may be reckoned as follows:

Land per acre	\$20
(Clearing and tilling	25
Vines	7
Cultivation	16
Total	\$68

After the first year the vines will produce enough to pay all expenses of cultivation, and the interest on the investment. This increase will be progressive until the sixth year. There seems to be no limit to the time of productiveness of a cranberry yard, and no necessity for the renewal of either vines or soil.

A farmer with ten acres of well-matted cranberries, may safely count upon two thousand bushels a year, which at the lowest market price will bring him three dollars per bushel, making a gross product of six thousand dollars. From this amount deduct six hundred dollars for expenses of picking and transportation, and you have \$5,400 clear profit which in these times may be considered a very fair return for the capital and labor invested.

There seems to be but little danger of much fall prices from over-production, for with every year the demand increases; and owing to the failure of the peach and the apple, there is a *growing* necessity for something to supply their places. This I think will be found in the cranberry.—*Germantown Telegraph*.

WINTER PROTECTION.

The time has come when it will pay the farmer and the fruit grower to give attention to the subject of winter protection. Five and twenty years ago it was not necessary to give the subject a thought. Then there was sufficient protection afforded by the uncultured trees of the forest, and then those that had fruit trees rarely failed to gather abundant crops, and the wheat was not killed out by intense freezing. Now it is all changed. The frost-laden winds sweep along the ground for many miles, sometimes blowing the snow from the fields and piling it up in the roads or along the fences. The orchards are fully exposed to the fiercest blasts, the sheep and cattle that are not housed find no better shelter than the lee side of a rail fence, and the houses of the farmer and the barns and sheds of the stock are shaken by every blast, and searched at every crevice.

Now, the stomach can contain and digest only a given quantity of food. Some of that food is changed into charcoal, and burned in the furnace