

geared power sprayer, and admits of the prosecution of the work, even when the soil is wet, and when the foliage is dry, and usually permits of getting the work done in time for thorough protection. The cost of the gas is the price to be paid for this advantage, which when looked at in comparison with the cost of the horse-power in the case of the wheel-gear machine, would appear to be a considerable item. Again when we come to compare the cost of the gas, which is less than half a cent per gallon or 40 cents per acre per application, it

would appear to be a very small consideration looking at the matter from a scientific or business standpoint. The gas sprayer has the advantage also of simple construction and operation. With ordinary care vexatious delays are unnecessary. There are no pumps to get out of order, and the work is done quickly, furnishing any desired pressure for any desired number of nozzles. It remains for the grower to decide which will best suit his special conditions.

The compressed air power machine, also, has the great advantage of light

draft, but it is a very expensive outfit, and liable to delays by the use of the engine and air compressor. Besides, the services of an experienced operator are required.

Thorough preparation and straining of the mixture are imperative with power sprayers, especially where a large number of nozzles are in use. A strainer or separator placed between the tank or pump and the hose is the latest and best arrangement. A valve is provided by which the strainer can be cleaned in an instant in case of clogging.

The Peach Nursery

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BEFORE we can raise good peaches we must raise the trees, and before we can raise good trees we must know how to select and treat the seed. Many growers prefer seed from natural fruit rather than that from cultivated varieties, claiming that such is more vigorous and hardy and that the trees are longer lived. While this contention has considerable weight, and while no mistake is apt to be made by its adoption, yet, there are men who use only the seed of budded trees and with the same degree of success.

SELECTING AND TREATING THE SEED.

Whether selected from natural or cultivated fruits, care should be taken to secure pits that are healthy, of good size, and from ripe fruits. It is better also to obtain them from trees of known hardiness and strong growth. Preference is sometimes given to pits from yellow peaches, particularly when the seedlings are to be budded with the same colored fruit. Pits from distilleries, where peach brandy is made, are not fit for the nursery, as the boiling process destroys their vitality.

When it is desired to grow the peach on heavier or moister soils than suits its own roots, the seed of the plum may be used for the production of stocks. For growing peaches on heavy clays, budding on plum stocks is particularly desirable and often necessary. For very dry soils the hard-shell sweet almond is used as a stock in countries where climatic conditions are favorable.

To get an even stand of trees the pits should be stratified in the fall (*i.e.*, mixed with alternating layers of sand in a box, or buried in a fairly dry pot in the garden or orchard) and exposed to freezing and thawing till spring, then soaked in water till they have absorbed considerable moisture. They should then be placed in thin layers on the surface of the ground and exposed to the action of frost, being protected from drying by a light covering of leaves or straw. Some growers put the seed in fall di-

rectly in the nursery, but by so doing only a portion will grow and no regularity can be attained in the rows. It is better to treat the seed by stratifying, as that prevents vacancies. In the spring, when taken up, most of the shells will be found to be cracked open; the others may be loosened with a hammer. They are then ready for planting in the nursery.

CHOOSING THE SITE.

The most important requisite in choosing the site for a peach nursery is the selection of a suitable soil. Peach pits will germinate and develop in a more or less questionable shape on a variety of soils, but to get the best results one should select a very light, sandy loam, well drained, warm and easy of cultivation. The exposure and location should also be considered. The sweep of prevailing winds should be avoided, and the slope of the land, if any, should be towards the north to retard bud growth in spring until danger from late frosts is past. If near large bodies of water the slope should be towards the water. Select, also, a place that is easy of access, near the road for ease in transporting the trees, and near the house so that the development of the young seedlings and buds may be conveniently watched. A location convenient to a constant water supply is also desirable and, in some sections and seasons, necessary.

PREPARING THE GROUND.

The ground for a nursery should be in the form of a square or parallelogram, and it should be laid out so as to admit of horse cultivation. Strips of land on the ends should be left sufficiently wide for a horse to turn about on.

To get the soil in the best possible condition for the growth of young seedlings, a hoed crop should occupy the land the previous season. A fall plowing is necessary, followed by a similar working in the spring, and a subsequent harrowing and rolling will leave the land in good condition to receive the

pits. If the land is not rich enough, apply barnyard manure that is well rotted, and, if obtainable, unleached hardwood ashes at the rate of 40 bushels per acre will be found to give good results.

PLANTING THE SEED.

Nursery rows, for horse labor, should be about three and a half feet apart and laid out as straight as possible. Mark out with a hoe or plow furrows two inches deep and drop the pits about six inches apart and firmly press the soil upon them. Care should be taken that the seeds do not become dry or mouldy before they are planted.

CARE OF NURSERY.

The ground should be cultivated as often as is required to keep the weeds down and the soil loose, especially during the early growth of the young seedlings. Hand hoeing is necessary between the trees in the row. Where the seed may have been dropped too thickly, through carelessness or accident, the superfluous trees should be removed. As the season advances the cultivator should be used less frequently, and when the trees are large enough to shade the ground it should be stopped altogether. In late summer or early fall—the month of August usually—the young seedlings should be budded.

The following spring, when growth begins, the wood above the bud should be removed and all the natural buds and twigs below the scion rubbed off. This should be repeated as often as new buds or twigs appear. All shoots that spring from the roots must also be watched and kept down. Cultivation of the ground should be resumed and continued throughout the growing season. Early in the season a little nitrate of soda may be applied if the growth of the trees is not satisfactory. Summer pruning is practised by some nurserymen, and sometimes with advantage. It is not essential, however. Whether it is advisable or not is a matter of opinion.