

*Intensive Fruit Culture
in Kansas.*

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The subject of fruit-culture in Kansas is an up to date question, and should be given due thought and careful consideration by every industrious and wide awake farmer. Not many years ago, it was considered impossible to raise fruit in the greater part of the state, but with the advancement of the westerner and the improvements in agriculture, the horticulturist has established his new ideas; and now, with the increased vegetation, larger rainfall, and better methods of conserving the moisture, together with the selection of varieties adapted to the local conditions, and improved methods of culture, many varieties of fruit can be successfully grown in nearly every county in the state. Kansas has already gained a reputation for her fruits and the time is

not far distant when the great eastern markets will herald the Kansas fruits as they do now her several series and livestock. The question arises, shall we plant more orchards and more fruit gardens? To him who would supply the market, the previous year's low prices would seem discouraging. This, however, should not mislead him. The future can only be anticipated with uncertainty. The profit and success will depend upon suitable varieties planted, methods of culture employed, market facilities, and last of all, the adaptability of the man to the business. The difficulties are manifold. Heretofore, insect pests and plant-diseases have been neglected and allowed to increase to untold numbers, but in this age of inventive genius, remedies have been discovered which will cope

with these pests and minister to their destruction. Kansas is endowed with a climate and soil for the production of a superior quality of fruit, and with the methods of culture now known, the field of the horticulturist is exceedingly encouraging. With skill and patience, combined with capital to start with, he will in due time receive his reward. To the landowner engaged in general farming, the subject of fruit culture presents itself as an important element in the enjoyment of country life. It should be the aim and ambition of every owner of land to cultivate fruit to the extent of his home consumption without regard to the matter of pecuniary profit. It is in this sense that the subject of intensive fruit culture will be amplified.

Ten acres is enough ground

for a general fruit and vegetable garden for family use. The location and quality of the soil is of great importance. As a rule, all kinds of fruit trees, berry bushes, and vegetables are grouped together just back of the outbuildings so as to give the greatest protection and least obscure the front aspect to the estate. It is true that ideal locations cannot be had in all cases. Circumstances must govern the arrangement according to the amount of each fruit planted, the quality of the soil, convenience, and the general lay of the land. For all our Kansas fruits, a medium highland with a moderate slope affords the best atmospheric drainage, and a protection from extremes in temperatures of a very high and very low lands, and at the same time gives the natural drainage which is imperative for

the best results. A southern slope is desirable for an early growth, but if late spring frosts are prevalent in a locality, a northern slope is preferable, and especially so if it faces a large body of water which so materially maintains a more even temperature. Good rich soil is as essential for fruit culture as any of the farm products. It should be a loamy soil with a deep porous subsoil to allow a wide extension of the roots. Apple trees are the most hardy, and will even thrive well on a comparatively light soil, but they too, for the best results, require a good rich loam.

There are many things to be taken into consideration in the selection of varieties in order to supply the family with fresh fruit the year round. Hardiness, productiveness, and quality are the

chief requisites for success, either for the family or the market. Local conditions of climate and soil will decide what these varieties shall be; for one variety may yield abundantly a superior quality of fruit in one locality, while the same variety may prove unprofitable in the adjoining one, with practically the same treatment. The strawberry is the earliest of fruit and is ready for use by June 1st. A very few square rods of such varieties as the Warfield, Beder Wood, and Haverland with the proper care will yield an abundance of berries thru the strawberry season. Cherries, currants, raspberries, gooseberries, blackberries, apricots, and the early apples, peaches, and pears follow in quick succession. It is of the utmost importance to plant but a few choice, well selected varieties and enough of each

to pay for the time and labor in cultivation. It is a wise plan to consult your neighbor and the wholesale dealer in fruits as to the good qualities and merits of the most desirable varieties of fruits, and then from the general information make the selection to suit your own special needs. Such information is invaluable to the inexperienced fruit grower.

In ordering the stock from a nursery, beware of fancy prices, and don't put too much faith in catalogues. Buy stocky trees with good roots and avoid too old rather than too young trees. If it is practical, go to the nursery yourself and pick out your own stock; pay a little more for it, and get the best. The profit in the end will pay many times the difference in the original cost.

Never buy second or third class stock, even tho it be cheap. They are especially subject to the attacks

of insects and diseases, and their life is short and thiftless. Good stocky, vigorous, two-year-old apples and pear trees are ready for permanent planting. Peach trees should be one year old from the bud; raspberries and blackberries of the previous year's growth; grapes two years old from cuttings; and strawberries with white roots.

Spring and fall planting, both, have their advantages. Fall planting is especially desirable in localities where moisture is abundant and the winters are not too severe because of the leisure time in the fall of the year for planting the trees, and the early start which they make in the spring. As a rule, however, spring planting is safest in Kansas. The usual droughts of the fall, the hard dry winds, with an occasional severe winter, render fall planting impracticable.

The reliable nurseryman will provide for the safe transportation of the stock, and on receipt of the same, it should be heeled in for several days preparatory to planting. In the meantime, the ground has been deeply plowed and finely pulverized for the reception of the trees. Next in order, is a systematic and regular plan in laying out the fruit garden. The general appearance of the arrangement is a true indication of the end to be attained. The painstaking and most successful person sets his trees in squares, rectangles, or after the hexagonal plan, in straight rows in every direction with the more hardy fruits, as the apple and cherry on the outskirts for the protection of the less hardy grape and apricot and berry. The distance apart for trees will, of course, vary with the kind of fruit.

Apples require plenty of room. For the larger standard varieties, forty feet each way is not too much. Thirty three feet, however, is a common distance. Pear and cherry trees about twenty feet apart. Peaches, if kept severely cut back, and plums can be as close as twelve or fifteen feet each way. Raspberries, currants, and gooseberries can be profitably cultivated in rows four feet apart and three feet between the bushes in the rows, while the rows of blackberries should be eight feet apart.

Before planting, all injured roots and branches should be carefully pruned off, and the top and rootsystem equalized. Cuddle the roots and place the tree in a hole slightly larger than the natural outspread of the roots. The bottom of the hole should be deeply shaded up and at sufficient depth to allow the tree to set about

at its original depth in the nursery. Firmly pack the loose earth about the roots, and the tree is sure to grow.

The tillage of the young orchard is a matter of question. It can be accomplished most profitably by growing such annual crops as potatoes which will return a profit as well as the desired cultivation. It is a common practice to set in fillertrees which will bring in an early return, but this custom is objectionable, because these fillers are sure to be left long enough to injure the coming orchard. Annual crops are the best known covercrops, and must be removed yearly. At any rate, cultivate the orchard, and keep the weeds down. Cultivate from early spring to late summer. It is conceded by all good fruit growers that it is best to cultivate

thruout the life of the orchard. If, however, the trees are making too rapid a wood-growth, the cultivation may stop for a time. Sometimes it is well to seed the orchard down in grass for two or three years. This seems to be the most advantageous to cherry trees for the production of fruit.

The good observer will early begin to prune and guard the form of the tree. The best pruning time for fruit is in the later part of May and thru the month of June. For the production of wood, prune in the warmer days of the winter months. Thinning of fruit is, also, an important element to be taken into consideration. It should not, however, be done until after the fruit is formed and safe from the late frosts and any other hindrances which might follow. The fruit is ripe, and

now comes the problem of picking. While no fruit should be left on the tree until it gets dead ripe, fruit intended for home and immediate consumption, may be allowed to thoroughly ripen before picking. An active boy who is not afraid to climb, with a light stepladder and a basket is the most economical picking machine. The patent pickers are only of value where the trees have been improperly trained and fruit is difficult to get.

Various devices are recommended for keeping apples and vegetables over winter. The underhouse cellar and hole in the ground are very inferior to a separate fruit cellar built out of doors in the ground with plenty of ventilation in the top and the door opening in the north end. The temperature will

not vary enough to freeze, and in the summer it will serve the purpose of a milk house etc.

During the process of tillage and pruning, the alert eye will discover the first raids made by injurious pests, and the enterprising fruit grower will at once make a study of the nature and habits of the pest, and devise a means for its destruction. In the winter time, he will plan for the future, so that when the working season comes in the spring, his fruit garden will receive due attention.

There cannot be any set of rules laid down which will apply alike to all localities, but each farmer must read, observe, and experiment for himself. Independent investigation and perseverance is the best guide. It is a common error for one farmer to

adopt the plan of his neighbor. It might do well, and it might not. The better plan would be to subscribe for three or four good agricultural and horticultural papers, and thus keeping apace with the times, apply the new ideas as your local conditions and requirements demand. By close study and observation of the growth of the , you can ascertain the exact wants, and this habit once formed will mean success and an abundance of luxurious fruit for the home.