

Kansas State Agricultural College

EXPERIMENT STATION.--Circular No. 13.

DIVISION OF FORESTRY

CHAS. A SCOTT, Forester in Charge.

How to Grow Black Walnuts

BY

CHAS. A. SCOTT.

Under favorable conditions the Black Walnut is a tree that is easily grown. The seedlings reach a height of from 12 to 24 inches the first season, and this height growth is exceeded from year to year during the sapling and pole stages of development. The nuts should be planted where the trees are to be permanently located for the reason that the seedlings develop a very strong tap root the first season and transplanting is impractical.

THE SEED.

The nuts mature in October, and they should be gathered soon after they fall from the trees. They should not be hulled as the hull in no way interferes with germination and it protects the kernel from injury by drying. The only treatment necessary before planting is to see that the nuts do not dry out, as drying seriously injures their germinating powers.

Nuts for fall planting keep perfectly in small piles in cool, shaded places. The piles should not be made more than 12 or 15 inches in height, on account of danger of the nuts heating if the pile is large.

For spring planting the nuts should be stratified over winter. They may be stratified in moist sand or leaves in any protected place. In stratifying, a two-inch layer of sand or leaves should alternate with a layer of nuts of the same depth. The pile should be kept moist and allowed to freeze and remain frozen throughout the winter.

PLANTING.

The nuts may be planted either in the fall or in the spring with equally good results. The fall planting should be done any time after the nuts are gathered up to the time the ground freezes. The spring planting should be done as soon as the ground is in a workable condition. The danger in delaying planting until later in the season is that the nuts begin to sprout soon after they thaw out, and once through the shell the sprout is easily broken off. It is also necessary to exercise due precaution to prevent the nuts from becoming dry after they have been stratified as the germ is then very delicate and easily injured.

WHERE AND HOW TO PLANT.

The ground in which walnuts are to be planted should be thoroughly cultivated for two or three years before the nuts are planted as the trees will not make a satisfactory growth in virgin soil. The Black Walnut is a tree that requires the deepest, richest soil that can be found along creek and river valleys for its best development, yet at the same time it makes a very satisfactory growth on the prairie soil of the eastern part of the state. In the western part of the state the planters should select the low ground along ravines for planting sites when possible.

The nuts should be planted three feet apart in furrows ten feet apart and not more than four inches in depth. After the nuts are planted the furrows may be filled in with a cultivator. It is not necessary or even desirable to level the ground more than is required to securely cover the nuts. If the furrows are not leveled they will catch the excess surface water in times of heavy rainfall.

If the nuts cannot be planted in furrows the next best plan is to plant them in seed spots. Seed spots are places where several nuts are planted in an area sixteen or eighteen feet in diameter to ultimately form a small group of trees. The ground for such planting should be spaded and pulverized so as to increase the moisture-holding capacity of the soil, and from six to ten seeds should be planted in each seed spot.

CULTIVATION AND CARE.

On account of the Black Walnut being a lover of moist, rich soils it is very sensitive to dry, parched conditions. It is therefore very necessary to give the seedling trees the best of

cultivation until they develop a good root system and take possession of the ground. Thorough surface tillage that will maintain a dust mulch is the most desirable cultivation. When it is impossible to give the trees such cultivation, as in the case of seed spot planting, it is a good plan to mulch the ground with straw to keep down the grass and weeds. In all events keep the ground around the seedling trees free of weeds and grass sod.

After the walnut trees are five or six years old it is often advisable to underplant them with such trees as the box elder, green ash, or red cedar, so as to completely shade the ground. Shading the ground and keeping out the weeds and grass are factors vastly more important in tree culture than most people are willing to believe. The walnut has very light foliage and the grasses and weeds soon take the ground unless some other trees with heavier foliage are planted with them.

Approved:
ED. H. WEBSTER, *Director*.

MANHATTAN, KAN., November 11, 1910.