

wood (*Populus monilifera*) is much grown. This tree is a native, found on the bottom lands of the Missouri River from Arkansas to Nebraska, also, in western Iowa. The wood splits well and is generally known as yellow poplar. It is much more useful than the ordinary cottonwood.

In the college forest plantations there are from one-quarter acre to two acres each of the following trees: white pine, Scotch fir, Austrian pine, Norway spruce, European larch, green ash, western catalpa, southern catalpa, black walnut, butternut, hickory, burr oak, ailanthus, honey locust, sugar maple, silver maple, American elm, osage orange, box elder, red cedar and chestnut. Of most of the varieties planted the failures have been so few as not to interfere materially with the general results. This forest planting was done chiefly under the late Dr. Warder's supervision, who was an advocate of close planting. The trees were planted in rows four feet apart and two feet apart in the rows, which experience has shown to be a waste both of trees and labour.

It is claimed that the box elder and western catalpa can be raised with more profit than any of the other trees on account of their rapid growth. The catalpa is being extensively used for fence posts and railroad ties; the wood is more durable than is generally supposed; the sap wood quickly decays, but the heart wood is very lasting. The white pine trees in the college plantation have been quite a success, having attained, in twelve years from planting, a height of 25 feet, with trunks 6 inches in diameter at base. These trees were three or four years old from seed when planted.

The Scotch fir, eleven years planted, average about the same height, with larger trunks, measuring 7 to 8 inches at base. The sugar maples, which were three years old when planted, have an average diameter of trunk of 4 to 5 inches; while the silver maple has made from 8 to 10 inches in the same time. The box elder is still more thrifty, many of the specimens having reached a diameter of trunk of from 10 to 12 inches. The green ash has formed a handsome grove, with trees very uniform in height and size, the trunks ranging from 6 to 8 inches in diameter.

Black walnut and butternut have both made fair growth, but have not grown with that rapidity which might have been expected. Another clump of black walnut, twenty years planted, on a different part of the farm, was also examined, and while there were a few fine trees, with trunks over a foot in diameter, the majority of them had not attained to more than 9 or 10 inches. The plantation of European larch is very fine, the trees being very uniform in growth, fully 25 feet high and about 8 inches in diameter of trunk. In one small spot, where the land was low and wet, the trees were stunted and unhealthy in appearance. The chestnut trees have not been successful, but few now remaining of the original plantation, showing that they are not suited to this locality. The hickories have made very slow growth; so also