Wonderful Change Wrought in Nebraska Growth by Tree Planters

By C. S. HARRISON,
President of Nebraska Park and Forestry Association.

TREES have certainly produced a marvelous transformation. I came to Nebraska in the fall of 1871. The whole land was an infinity of prairie. The emerald of the earth touched the blue of the heavens in the far away horizon, with nothing to intercept the meeting. Your vision wearied at the vast and limitless expanse, with not a tree to greet your eye. Your vision went on and on, you kept looking for something that was not there.

And all this while the rich soil was hungry for trees; when planted and cared for their growth was astonishing. I stand on an eminence and look over York, and see what trees have done for this place and this is a sample of what has been done for other localities. When I came here there was not a tree or shrub on the town site. It was but a bare prairie, with plenty of room for a town. There were six shanties, three of them saddles, and all of them of the poorest construction. Immediately we began to plant. I remember I brought some white willow stakes and set them out. They were about six feet tall. I planted them deep, and how they grew! They made a complete wind break around by half block. They were all cut away fifteen years ago and averaged two feet in diameter. They grew so fast they threatened to devour the earth; they invaded the garden and the garden or the trees had to go.

Catalpas which I planted thirty years ago would make fair saw logs. There are several cottonwoods here that would cut over 1,000 feet of lumber apiece and they have just begun to grow. Ash, Elm, maple, boxelder and honey locusts have made amazing growth. York is now a forest city, completely embowered with grand trees. When the fierce gales are blowing I remember how the winds swept through the town and raged over the prairies. Now in a high wind there is comparative calm, so complete is the protection afforded.

The Terror of the Nurseryman.

"Nothing but evergreens," said an old settler. "You can't raise evergreens in Nebraska." We are raising them here by the hundreds of thousands. They are the terror of the nurseryman. They must be sold young or go on the brush pile. I have had the famous bull pine grow two feet in four years and then it was just ready to make from one to two feet a year. Here are splendid Austrian pines, I planted myself, that would make good saw logs. We have touched in all these years our possibilities, we have found with the decreasing lumber supply that in a few years we can raise evergreen barns which will afford fine protection in our dry winters, two rows of trees around a fourth of an acre will soon give fine shelter, away ahead of the barbed wire fence, so generally used.

We find evergreens well adapted to our soil and climate. The pinus ponderosa or bull pine is a Nebraska product. Once established it will resist any amount of dry weather. The Austrian makes a fine growth. For the eastern and northern portions of the state the pack pine is giving great satisfaction.

Trees have done wonders for the sandhills, proving what can be accomplished. Once established, even on bare sandhills, they are now making two feet a year and in thirty or forty years will make good saw logs, so that lands now worth only $1 or $2 per acre can in time reach a value of $200.

There are almost limitless possibilities of wealth here. We know a young Kinkaider who raised 12,000 bull pine trees from two pounds of seed. These he raised in the open as easily as he would raise peas or onions. Experiments made by several persons prove that with a little outlay a man can raise forty acres of pine trees which will soon give shelter to his stock. So with evergreens you have choice specimens for your yard, fine groves and shelter belts for your farm yards and splendid wind breaks to keep out the fierce north winds.

The Despised Cottonwood.

In thousands of instances the despised cottonwood has proved to be a great money maker. In thirty years returning to the owner $300 worth of lumber to the acre, besides an immense amount of fuel. Here is a rental of $12 per acre per year, with lumber at past prices. Remember lumber is going up all the while. Cottonwood is far better and stronger than pine for boxes, bridge planks, sheathing and framing. So many successful experiments show the criminal waste of allowing rich bottom lands worth $100 per acre to grow nothing but weeds, when they could just as well go to raising houses and barns.

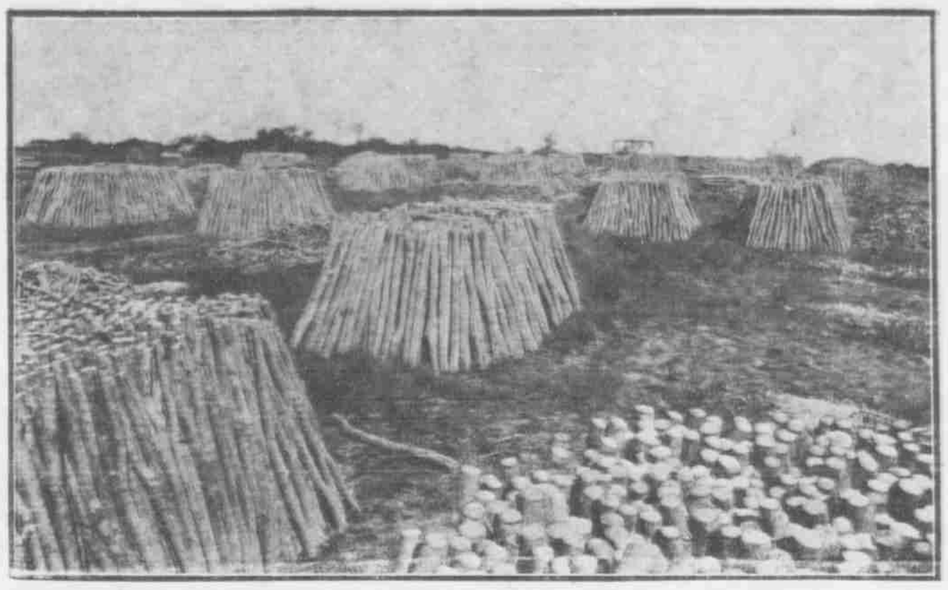
The Norway Polar or sudden saw log is the most rapid growing tree in our northern states. It is probably of the cottonwood family, the male type, as it sheds no cotton. It somewhat resembles the Carolina and yet it is different. It retains its size as it mounts upward. It is hardy in Manitoba, where the Carolina cannot live. Here we have raised hundreds the first season eight to nine feet tall from spring planted cuttings. It makes fine lumber, with a smooth finish and is suitable for pulp and excelsior. Trees grow rapidly from cuttings and there is no reason why they should not be grown by the million.

Lesson for the Future.

The splendid successes of the past should be an encouragement for the future. Every farmer should plan for planting trees for profit. Native timber like the ash and oak is not always profitable. The quick growing trees give returns in a short time. A ravenous hunger for lumber is devouring our forests. Terrible fires sweep through large tracts, leaving a fearful desolation. Break the coal trust by raising your own wood. Raise your own lumber and save freight and prices double what you are now paying. Plant catalpas for posts, telegraph poles and railroad ties. In Kansas they are raising these trees to take the place of white pine. They grow rapidly. The lumber takes a beautiful polish and it is the strongest light wood that grows, being used for tool handles and even for axe handles.

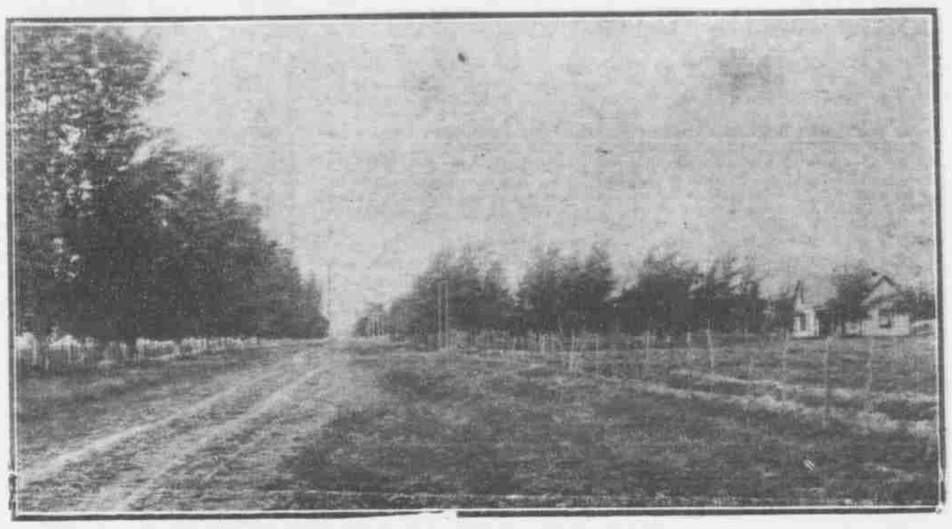
The speciosa is reasonably hardy. It is worthless beyond the 100th meridian, as it can not stand the drouth and it is hardly hardy enough to go north of Nebraska. But where it can be grown it is a money maker. You look on and see it grow, and it brings in a yearly rental of $12 to $15, more than you can get for all your sweat and toil thrown in.

There is a disease of restlessness which takes possession of the native born farmer. He does not hold his land for himself and children and children's children. He sells and moves into town. Hence he does not improve his place. Let him fix it up, plant a lot of trees and have a yearly income from his crops, fruits, wood and lumber and he has a kingdom of his own by divine right, reaching down to the center of the earth and up to the stars. Let him keep it and keep it well. Let him dignify amid surroundings which he himself has made. Go through most our towns and see our young men, sons of farmers, most of them; they spend as they go, laying up nothing; if they marry, God help their families. They spend enough on cigars to support wife and children. No provision is made for old age. Fifty years from now you will see a mighty army of vagabonds, dying in utter poverty, buried by the public. When these very men and their wives, if kept on the farm, would be ornaments to society and loved, honored and respected.



CATALPA FENCE POSTS ON THE PLANTATION OF C. D. ROBINSON, PAWNEE CITY, NEB.

CONSERVATION FORESTRY METHODS WITH BULL PINE IN THE BLACK HILLS COUNTRY.



COUNTRY ROAD NEAR BILLINGS, MONT., SHOWING RESULTS OF TREE PLANTING. NEW RANCH ON THE RIGHT HAND SIDE OF THE ROAD.

Catalpa Tree's Value for Prairie Planting is Demonstrated

BY FRANK J. PHILLIPS.
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DURING the last three months the forestry department of the Nebraska university has been in receipt of over 200 inquiries concerning the planting of hardy catalpa. Most of these inquiries have come from Nebraska, from men who are anxious to establish forest plantations varying from one to ten acres in size. At the present time this tree is considered the most important one by prairie planters, and yet there is a great deal of misinformation concerning it.

One of the most frequent questions asked is where good stock can be obtained and how it can be recognized. It has often been claimed that from 90 to 95 per cent of the stock sold has been common catalpa instead of hardy catalpa. So far as my own experience is concerned, I have found few indications that Nebraska nurserymen of long standing are selling poor stock. On the other hand, many of the agitators, who have claimed that they are the only authorities on hardy catalpa, have produced small results on which to base their claims. Many such men have gone into the business of raising catalpa seedlings with the sole intention of charging exorbitant prices by claiming that their seedlings are the only true hardy catalpa.

The difference between the hardy catalpa and the common catalpa may be briefly stated as follows: Common catalpa winter kills and forms a more crooked growth than the hardy catalpa and hence is almost useless as far north as Nebraska. Common catalpa usually has a flaky bark, flowers without purple color in the tube, pods five to ten or more in cluster, the pods usually varying from eight to ten inches in length. A very pronounced difference is also apparent in the seed, as the common catalpa has a flat spindle-shaped seed, while that of hardy catalpa is crinkled and rectangular in shape. Common catalpa has 25,000 to 40,000 seed per pound, while hardy catalpa has 20,000 to 25,000 seed per pound.

It would seem from this description that it would be comparatively easy to distinguish between these two species, but unless one has remarkably typical trees before them, it is very difficult to tell the trees or pods or seed of hardy catalpa from those of common catalpa or the hybrids. In fact, there is every possible gradation from trees of the hardy catalpa to those of the common catalpa. I know of two specimens which have all the characteristics of hardy catalpa with the exception of the bark, which is flaky on one and ridged on the other. Yet, I am convinced that they are both of the hardy sort. Frequently I have noted this in regard to the other distinguishing characteristics, and when one remembers that the two species cross promiscuously and that the size on which the tree grows greatly affects pod and seed characters, it will be apparent that there is a great deal of difficulty in telling whether a definite example of seeds or pods belongs in one species or in the other. So far, no real authority has laid claim to being able to distinguish the seedlings. The only fair basis is for the seed collector to know all the characters of bark, flower, pod and seed, and then collect only from such trees as are of high class.

There are two general methods by which the prairie planter may protect himself and be fairly safe. One is to study the catalpa trees in his locality and learn to select his own seed from high type hardy catalpa trees only. The other method is to buy seedlings from reliable, long-established nursery men who have taken pains to select seeds from trees with which they are acquainted and are willing to guarantee that their seed has been collected from trees which show the characteristics of hardy catalpa and have proven hardy.

Many planters have little knowledge of the ease with which hardy catalpa seed may be grown in the home nursery. The pods should be collected from shade trees or wind breaks, since trees in the open bear comparatively much larger amounts of seed than those growing in plantations. Single trees 7 years old often bear fifty to seventy-five pounds of pods, which will yield five to fifteen pounds of clean seed, according to the care used in collecting all pods and in cleaning the seed. Catalpa seed usually sells at $1 to $2 per pound, while the cost of collecting and cleaning usually ranges from 20 to 50 cents per pound. Collectors of small amounts who live at home may readily collect it at 15 cents a pound.

If the seed is to be sown at home, it should be sown in drills twelve to eighteen inches apart if it is to be hand cultivated, or twenty-four to thirty-six inches apart if a horse is to be used. The seed should be sown one-half inch deep and should be distributed thickly enough so that the seed will overlap. A well-drained sandy loam is to be preferred as a seed bed, but heavier soils may be used with considerable success. The soil should be cared for much the same as is necessary in good gardening. The trees will be ready for field planting one year after the seed is sown, but occasionally are left in the seedbed until two years old. Few species may be grown at home as easily as this one.

In field planting it should be remembered that so far the hardy catalpa has not been considered a commercial success north of the area drained by the Platte river. The tree makes its greatest profit, both relative and absolute, on rich, deep, well-drained soils, and in several plantations in Nebraska and Kansas it has made a profit that is equal to or greater than the average profit from farm crops for the same number of years. Judging from plantations made in Kansas and Missouri, it gives promise of being a very valuable tree for planting on flood lands where the water is not stagnant and where the drainage is normally good. One such plantation has been known to have been covered by water to a depth of one to three feet for a month without killing the trees.

The trees should be planted on plowed land and should be cultivated until they are large enough to form a fair shade. Ordinarily, cultivation may be discontinued after the second or third season. It has been customary to cut the trees back to the ground after they were 2 years old, in order to secure straighter growth and to eliminate the lower branches. This practice has been followed to a considerable extent in the large Kansas plantations, but recent experimental work has shown that such practice is at least questionable. If it is followed, the owner should thin out all except one sprout to the stump at the end of the first year after cutting back.

Spacing Between Rows.

Spacing may vary with the purpose of the plantation. Most of the successful commercial plantations have had an original spacing of 4x4 feet, while some have had a spacing 4x8 feet and others 6x6 feet. A few men have recommended an original spacing of 8x8 feet up to 12x12 feet, but when the plantation is to be managed for the production of fence posts, such a spacing is to be seriously questioned. In one Nebraska plantation, in which one part was spaced 6x6 feet and the other part 12x12 feet apart, the 6x6 feet spacing yielded approximately twice as many fence posts per acre as the greater spacing and the increased quality more than offset the extra cost of establishing the 6x6 spacing. It is well known that three or four crops may be harvested by properly caring for the sprouts which spring up from the old stumps, but the writer has found that the sprout growth in 4x4 spacing was not so thrifty as in a greater spacing, although the first growth had been fully as strong. It will be noted that a 4x6 spacing in the planting will allow the owner to thin out to 6x8 feet after the first crop has been harvested. It is hoped that some planter will also try cultivating one part of the sprout growth and leaving the other part uncultivated in order to determine whether cultivation will not assist in improving the second crop.

The plantations may be harvested in twelve to twenty years after being established and if the sprout growth is very thrifty, a second crop may be secured in two to four years less time than the first crop. Some plantation owners cut their sprout growth after eight years, but it is thought that a slightly longer growth would furnish a relatively greater profit.

Profits from hardy catalpa plantations vary widely, but on the best plantations net profits of $5 to $7 per acre per year are not uncommon, while greater profits have been reported. Plantations of 400 to 1,000 or more acres have been established in Kansas and in some of these there has been three harvests from one planting. Practically all these plantations have shown that the fertile soil pays a relatively greater profit than the soil poor in fertility.

Nebraska has already had several examples of successful planting, and it is to be hoped that the future planting of the species will proceed along rational lines and yield excellent results. Much remains to be known concerning the possibility of extending the planting range, the value of the species on overflow lands, and of the various possible methods of management. The principle value of the species in this region at the present time is for fence posts, with the bad culls and the small stuff going into the fuel pile.

Omaha Woman's Officers and Delegates to G. F. W. C. Convention

WHEN the biennial convention of the General Federation of Women's clubs meets at Cincinnati, May 11 to 18, Nebraska will be represented by one of the largest delegations it has ever sent to this largest of all the big women's meetings. Notwithstanding the cry raised so persistently the last few years that the woman's club movement is on the decline, the Nebraska federation is larger now than ever before in its history, having a membership of 140 clubs, and also has ten more clubs affiliated with the General Federation than ever before.

It is true that Omaha Woman's club will send a smaller delegation than previously, but the shrinkage in its membership is readily accounted for. It reached the high mark during the exposition years, when membership afforded special advantages. When the expositions were over and these advantages had passed those who sought them withdrew. Five years ago, because necessary restriction of the club prevented the expansion they desired and the broader work they had become fitted to do, a majority of the members of the art department withdrew to organize the Society of the Fine Arts, a club the Omaha woman's club is proud to call its offspring. These have been its chief losses in membership. Naturally the personnel of the membership has changed to some extent, but a large majority of the women who have been active in its work still retain their membership, although many of them are now devoting their energies to more specific lines of work that have developed in Omaha and the state from attention to other things. The younger newly elected officers are from the ranks of these older women have turned their take their places and the majority of the

The beginnings made by the mother club. women in the club have come forward to

Mrs. M. D. Cameron? the new president, will have three of its executive officers.

has already served the club on its executive committee as recording secretary, and Mrs. N. H. Nelson, the new recording secretary, has served as treasurer. In these offices, both women have demonstrated their fitness and their ability to serve the club in its important offices. Mrs. C. W. Hayes, the new vice president, and Mrs. L. J. Healey, the new second vice president, have both been leaders of the current topic department, while Mrs. George Bonner, the new corresponding secretary, has served as chairman of the membership committee and is a charter member of the club. Mrs. E. H. Hume, the new treasurer, has served as assistant treasurer during the last two years.

It is the custom of the club to send its president as its first delegate to the biennial convention of the General Federation so that Mrs. Cameron will head its representatives. Mrs. W. P. Harford, the second delegate, is a past president of the club. That office she filled with distinction during the Transmississippi exposition and has since served in many advisory capacities. She is at present president of the Omaha Young Women's Christian association and identified with much other public work. Mrs. Sterling H. McCaw and Mrs. Edgar Allen are the other delegates and Mrs. N. H. Nelson, Mrs. L. J. Healey, Mrs. Samuel Rees and Miss Jeanette Jessop, the alternates.

In this representation the Omaha club

Making a Campaign Hit

There is a story on a St. Paul man going the rounds which might as well be blamed on one man as another—any one running for office will do.

The story is that this man went to a meeting composed largely of Norwegians, many of whom could not understand English, while he didn't know a word of Norwegian. Anxious to please, he said to the chairman:

"Now please give me a good ripping line in Norwegian with which I can close my speech—something that will create enthusiasm."

The chairman complied, writing a line out carefully, rehearsing the speaker in pronunciation and showing him where the oratorical period should come. The speaker went through the usual talk and then, coming to the sentence furnished by the chairman, roared out:

"Vil dere alle sammen vaere so snille at gaa ned og have lidet forfriskning paa min bekostning I salonen nedenunder!"

There was a yell of delight, a vociferous round of applause, a shriek of joy and then a stampede of 50 eager men for the door.

"See! It made a hit!" exclaimed the speaker. "What does it mean in English?"

"Why," said the chairman, "you asked them all to go down stairs and have a drink at your expense!"—St. Paul Dispatch.

Suppose Disease is Banished

Many things are called cancer cures and few are chosen; but Prof. Rampoldi of the University of Pavia is not a quack and he may have achieved such a remedy for cancer as the knife is for appendicitis or such a preventive as vaccine is for smallpox. If every bane has its antidote cancer is not exempt; and why not the fame of a discovery of its antidote to Rampoldi as well as anyone else. At last the victory may be won.

But what is going to happen to the human race if, in the progress of medical science, a specific is found for every ill that human flesh is heir to excepting extreme old age? Precisely that is what science and hygiene are striving for and slowly succeeding in. There is now a serum for the black death, and no longer does the plague slay its myriads. Cholera may be conquered; its victorious foe is cleanliness in housing, clothing, eating and drinking. Smallpox no longer sends whole communities scurrying to cover. Millions of dollars are being spent in the fight against tuberculosis and, in moderate cases, not without success. Diphtheria no longer seals its victim with the sign of death. No evil of the system seems to be wholly beyond the area of cure.

Now, supposing that the doctors keep us all well until the time of senile collapse, will not the race so enormously increase and so press upon the means of subsistence that we shall all be at each other's throats? By abolishing war, pestilence and famine, India is becoming one vast human congestion which may one day invite a famine that outsiders, themselves with the many mouths to feed, may not be able to allay. At the present rate of increase of the earth's first family all the arable land will be used to its natural capacity for the production of food in 100 years. But suppose the present growth is accelerated? Then we may be at the end of our rather in five generations, save as intensive farming and the intensive cultivation of sea food may prolong the period and eke out the struggle for existence.

And all this raises the debating school question if the race will be any the better off in the long run for the cure or alleviation of its ills than it will be if nature takes its usual course, keeping numbers down to the point where men will not have to battle for food.—San Francisco Chronicle.