

Forestry on the Iowa Farm

E. A. Sherman, "Chaucer," '96

This is not a technical paper. It is merely a glimpse of the human interest side of forestry on the Iowa farm. Its roots run deep into the subsoil of the memory of other years. Its seed dates back to boyhood days in the virgin hardwood forest which fringed the banks of the east fork of the Des Moines River. Its lights and shadows of thought play about the dooryard of the little log cabin which an immigrant Irish boy built within the shelter of this timber on the homestead where he settled in 1859, and where he made his home with a girl-wife from New England and raised a family of fourteen children, twelve of whom are today citizen Americans.

These are misfortunes that are blessings in disguise. It was really a great privilege to have been born in a log cabin. What would today be considered poverty of the most abject sort had nevertheless its compensations. Poverty and wealth are after all only relative terms. The common lot of those days would be considered abject poverty according to 1926 standards. But it was then sturdy independence, for was there not always ample food and within the cabin walls always warmth and good cheer? What mattered it if your blouse were thin, if the red woolen scarf which you wrapped around your ears froze to your cheeks, if your leather boots hardened and your feet became numb, while you stamped and threshed your arms in the fight with cold; within doors was the wood fire, while nearby, rising like a snow-capped mountain range, was a seemingly inexhaustible supply of seasoned white oak chunks, fuel for the great heating stove around which by candlelight, and in later years by the light of a kerosene "hanging lamp," the family life centered.

But to the boy spring time and summer were the seasons of unending delight. Wild fowl in unending numbers flew overhead. Let grown men go afield for the wild goose on the wing. The tow-headed urchin could crawl along unnoticed behind the garden fence and with eyes sparkling and hands trembling with excitement stealthily poke the family shotgun between the rails, take careful pot shot aim at a flock of unsuspecting mallards or teal, and, later, having rolled up his blue overalls and and retrieved his kill, return

to the cabin and mother with game birds of epicurean excellence. Then came warm April rains and the first "May flowers" of spring, which always won a smile and perhaps a cookey from mother, when delivered with breathless eagerness because they were the first color after the long drab life of winter.

Bare feet were not a sign of poverty but of independence. No boy whose feet have ever felt the cool earth of the temperate zone ever willingly imprisons them in leather. Without shoes your feet were so much lighter, you could run more swiftly, you could stalk game more surely, climb trees better. The boy's field of interest was "the timber." This was a wonderful, mysterious place, vast in extent and filled with myriad interesting things. Rabbits thronged its hazel thickets, grey squirrels scrambled monkeylike through treetops, swung on ariel bridgeways of wild grapevine, and lived in the hollows of ancient basswood or white oak trees and sometimes in great nests of leaves high up in the branches. Coons, foxes, and woodchuck were the big game of the region. An occasional coyote drifted in from the prairie. Muskrats and mink were found along the river and its tributary creeks. And in the springtime pickerel came up these creeks seeking spawning ground in the clear sources far back on the prairie. Then came the settler with his plow and mowing machine and one bright day in spring the returning pickerel were found in shallow water on a stubble field where the homesteader speared them with a pitchfork.

"The timber," of seemingly endless area, was really virgin hardwoods fringing each side of the river with a green ribbon from a quarter to a half mile in width and sometimes extending a mile or so out along the main creeks. The common names of the principal trees, walnut, ash, hickory, water elm, slippery elm, burr oak, red oak, basswood, soft maple, black cherry, willow, butternut, cottonwood, aspen, hackberry, box elder, and the wild plum, crabapple, ironwood, red haw, black haw, choke cherry, sumac, and hazel, were as familiar to the boy as "Fleet" and "Lady", and "Prince" and "Dan," and the other workhorses on the farm.

What wonder that, when the boy in later years as a student at the Iowa State College at Ames was confronted with the duty of collecting, mounting and classifying fifty or a hundred plants native to the region, he turned instinctively to "the timber" lying back of the cabinsite of childhood's years. A seedling maple or box elder made a pretty specimen with accompanying samples of seeds and a twig with

a few leaves from a grown tree gave ample evidence of good working knowledge of the specimen. Examples of every tree and shrub he could recognize in the timber were supplemented with specimens of every noxious weed he had encountered in bitter battle under the burning summer sun in garden and field, the hated cocklebur leading the list. Almost unconsciously he assembled the collection of a practical agriculturist, differing widely from the usual student collection in which the spring flowers of the region commonly outnumbered all other plants.

From a broader economic aspect "the timber" in Iowa played an important role in its early settlement. Before the coming of the railroad settlement was virtually impossible without it. It was needed for building homes for the people and barns and sheds for stock, for fences and for fuel. Furthermore, in many parts of the state only the land along the stream courses was sufficiently well drained naturally to permit crop production. What wonder then that the early settlers followed the streams and lived in the shelter of the timber!

Drainage where properly applied, that is to the black prairie soils, has during the last fifty years made them the most productive corn land in all the world. The scene of maximum farm activity has shifted from the river settlements to the plains. Nor was the pressure of the flow upon the timbered lands relieved any too soon, for by it Iowa's original forest area of 5,120,000 acres of forested land, out of a total land area of 35,574,940 acres, was reduced in 1924 to only 2,2113,000 acres.

Excepting in the Mississippi River counties there was no extensive clearing for cultivation. Most of the transition from forest to cultivation was by a gradual process of accretion. Stock killed out the hazel thickets and heavy pasturing thinned the virgin forest. Always the plowed field and the meadow were favored so that what "the timber" once lost it never regained.

To assert that no part of Iowa's virgin timbered area should ever have been cleared for cultivation would be going to extremes. Upon the other hand, it is certain that the forest cover has been destroyed on innumerable small areas to the great detriment of the State as a whole and with general disaster to the beauty and value of its water courses. Not large areas in any case, but a few acres here and a fraction of an acre there. A generation ago the boy of our memory saw a field squared up by the removal of the thicket that protected the head of a trickling stream. Certainly the

newly plowed field with its straight furrows looked much more businesslike. But when spring time came again with its annual miracle of the "breaking up" of winter he was almost stunned by the roar of the floodwaters that poured their angry volume down the former quiet stream bed, and was dumbfounded at their dirty appearance. To his mind water in streams should always be clear, for had he not seen the Des Moines in full spring flood rolling full from bank to bank and spreading its clear tide for a mile in width across the bottom lands where in the summer lush blue stem grass waved their plumes in height and density sufficient to at a short distance hide a horseman? To be clear was a natural quality of the running stream; this tawney discolored torrent was unnatural.

Since that first example his attention has been attracted in every region by constantly occurring instances of damage innocently being done by unwise clearing. Nothing so securely holds a stream within its bed and prevents it from taking toll from the fertile soil along its banks as a fringe of trees. The forest growth protects both water and land when so placed and both land and water are injured when the protective forest is removed.



Cottonwood plantation 4 years old on bottomland subject to overflow.

Because the forest area within the State is very limited all the greater care is required in its protection and management. It is not alone that its volume of wood products is sorely needed in the farms, not alone that if properly managed this 2,213,000 acres of woodland can be made to supply all the posts and building material annually required on the over 200,000 farms in the State; not alone that it is possible to save a considerable part of the freight bill of over \$9,500,000 per annum which Iowa pays on forest products largely shipped from the south and the Pacific Northwest; but care is needed so that soil-robbing and flood damages are not unwittingly encouraged. Not another acre on an Iowa farm should be cleared of its timber without the owner stopping to count the costs. Questions that will occur to him are such as: Is this land so steep that when plowed the soil will wash away? Is this thicket needed to hold back a rush of water which might injure land at some other point? Will the purity of some stream be adversely affected? Will the stability of some spring be disturbed? Is this a natural snow fence or windbreak that is earning its keep in a protective capacity? Is this plot a playground or haunt of the farm children? Does it harbor birds that in turn prey upon insect pests? Do the young trees which would be sacrificed by clearing represent substantial value? Is it probable that by protecting them until they reach merchantable size they would make a better financial return than any cultivated crop that might take their place? Is there a chance to substitute a valuable tree species for ones of lesser value, such as walnut in place of kinikinic, ash in place of cottonwood, hickory in place of elm, and secure from the area valuable woods in addition to valuable forest influences?

Undoubtedly upon a careful analysis it will be found that in practically every case the small areas on Iowa farms which are still timbered should remain so. Generally the loss or disadvantages resulting from clearing more than offsets increased crop production and the owner has only his trouble for his pains.

This does not mean that the Iowa farmer should leave his "timber" untouched. Quite the contrary. He should study it, seek advice from those qualified to instruct and endeavor to improve his woodland just as he endeavors to increase the earning power of the rest of his property. Nor should he confine his considerations of forestry practice solely to such lands as are already in trees. Perhaps he has other lands better suited for tree growth than anything else. Per-

haps a change might be made advantageously and this place cleared for cultivation while that rocky corner is planted with trees. Certainly a treeless place will be made more attractive as a home and its value either for sale or service materially increased by planting an acre or two for shelterbelt purposes, usually north and west of the farm buildings. That shelterbelt after a few years will pay its way with protection, a little fuel, and an occasional post or pole for fence-repair work. If a few walnut, butternut, and shellbark hickory trees are included in the grove the farm will be made much more attractive to the boy. Finally, if he stays on the farm, there will come a day 40 or 50 years after your planting when he can go into this plantation with a portable sawmill and, largely with his own labor and without any trouble and expense of hauling, saw out dimension stock and rough lumber for sheeting, etc., sufficient for a complete set of farm buildings, including the house itself. True, most of this material may be cottonwood, but for inside work where it is kept dry it will serve substantially as well as lumber from the South or far West which would now cost him \$30 or \$40 per M. at the local lumber yard, with probably much higher prices in the future. Of course he will have to buy his shingles and all inside and outside finish at the village lumber yard; but having ready on the ground fifty or sixty



A 10-year-old shelterbelt of White Pine.

thousand feet of home-grown lumber may reduce his cash outlay by \$1,000 or more and make possible the erection of commodious and comfortable improvements otherwise unattainable.

And so boyhood's memories revert to boyhood scenes and seek to apply to that region the lessons of a life's experience in forest work which has taken him into each of the forty-eight States and the vast timbered regions of Alaska. Nowhere is the farm grove or shelterbelt of greater value than in the Hawkeye State. Nowhere will intelligent forest practice pay greater dividends acre for acre than when applied to the limited areas of steep slopes, rocky or sandy ridges, edges of stream courses and other like lands found on Iowa farms. Already these lands yield forest products annually valued at over \$4,000,000 in addition to nearly 2,000,000 acres of pasturage. Better management would increase this while at the same time averting the losses which would be certain to attend any appreciable reduction in the forested areas of the State. A wide distribution of forested areas adds to the beauty of the landscape, makes the region more attractive for home building, and increase land values in the State generally just as an equable climate has contributed largely to land values in California. Finally, it unconsciously induces love of country and makes for a stable, contented, and loyal citizenship.



Denuded stretch of shore line on southeast side Little Wall Lake, Iowa.