

UNDEVELOPED RESOURCES OF SOUTHERN
ILLINOIS

R. B. MILLER, STATE FORESTER, URBANA

Situated as you are in the unglaciated region of Illinois, with a considerable area in each county unsuited by virtue of its slope for agricultural crops, I believe you should consider growing to a greater extent a crop which is suited primarily to rough hilly land—namely, the timber crop. A good photograph of many of your valleys will show that the proper division will be corn and truck in the valleys, wheat on land not too steep, orchards on the hillsides and woods at the top of the hills, all determined more or less on the basis of topography and slope. You have also bottomlands which are in drainage projects which have not yet been successfully drained, being subject to periodic overflow. Men at the lower ends of these ditches are often “flooded out.” I contend that some of these bottomlands might grow a second crop of timber before being needed for agriculture, such rapidly growing species as cottonwood, gum, elm, maple, hackberry and sycamore, so called “soft-woods” suitable to supply the veneer factories of this region.

Have you thought in connection with the planting of orchards, of the importance of a perpetual supply of timber for baskets, crates and hampers? The citrus growers of Florida use about 12,000,000 boxes annually for the shipment of their products, each box taking about five and a half feet of lumber, or say 65,000,000 board feet required. Truck growers of Florida use 13,000,000 more boxes, so that the expansion of the industry may some time be limited by a lack of material for crates and boxes in which to ship the crop.

You may reach the same situation in southern Illinois—in fact you have already felt the pinch in the rising prices of veneered material. Shooks for tomato crates and all forms of boxes for berries and melons are rapidly increasing in price, due in large measure to the exhaustion of the local supply of timber. Last fall apple barrels were selling for \$1.50 each, a price which made their use almost prohibitive, shippers preferring to use baskets, a much less permanent

form of package. This means that you cannot ship the fruit so far as you did before and that in place of our getting a barrel of apples at the beginning of winter we have to be satisfied with a basket or two of the fruit. Some of the owners of these veneer mills have already told me that they import logs from Arkansas and Missouri and other states farther south and that the local supply of logs will not last over five years. Then they must move their mills to the south, nearer the timber, and you will be deprived not only of the cheaper product which you could buy at home but your town will lose a factory employing a great many laborers.

You are increasing each year the acreage of orchards and berries and melons, without thinking of where the boxes and crates are coming from to ship this produce to market. Why not devote some of this wet land to the growing of bottomland timber, keep your local mills running, give local people employment and assure the perpetuation of the fruit and truck-growing interests?

You have a great tie preserving plant right here in Carbondale, but only about one per cent. of the ties treated come from your own state or from regions near that plant. Why not look more carefully after the keeping of a supply of beech in these ravines of yours instead of being so anxious to make small patches of corn for a few years and then abandon the land? One man who is a competent judge says that Union County has the best supply of white and other oaks for railroad ties of any county in the state and yet these woods are allowed to burn over twice a year. I have been informed that large areas have burned over in Union County in the last two years. A year ago I saw six separate forest fires burning from the top of Bald Knob in Union County. It cannot be that there is no market for railroad ties because I know that last summer hackberry and maple ties, 7 by 9 inch face, were selling for \$1.90 delivered, material which at one time would have been rejected. Methods of preservation with creosote or zinc chloride make this possible. Red oak and black oak can be similarly treated and made to give good service, while the more valuable white oak can be allowed to grow into saw timber, into ties, and

into piling and mine props. This is not altogether the fault of the people, although some are careless with fire, but because we have no means of enforcing fire laws. We need a good system of county fire wardens and deputy wardens to enforce the fire laws, along with an educational campaign on the value of fire protection in the woods.

Your coal mines need a large amount of timber for props, legs and rip-rap lumber, and could not run long without it. Some one has estimated that it takes three acres of timber to mine one acre of coal. Prices of mine timber are gradually soaring, yet I know of but one company which has looked ahead to a time when the supply may be exhausted. Care is needed by these coal companies in their cutting operations, of keeping fire out of young timber and perhaps in time of reforesting some of their waste lands.

Preservative treatment of cheaper species may need also to be taken up in the case of mine timbers, to save the slower growing oaks which are needed for the larger timbers.

Then there is the subject of idle and waste lands. You have a lot of yellow silt loam soil in southern Illinois, some counties, according to the Soil Survey of Illinois, having as much as 55% of this kind of land. Its loose character makes it very liable to erode and form gullies unless it is very carefully handled, to keep cover crops and improve its humus content. As the result of considering the land simply a mine, to take all out and put nothing back into the soil, thousands of acres of this kind of land are being rendered worthless by gullying. The Soil Survey says that some of it should never have been cleared but left in timber, both for the value of such a crop and to prevent the encroachment of these gullies into the more valuable lands. The question of what to do with this idle and waste land is a most pressing one but we believe that some way should be found of getting it back into timber. It is the 81 million acres of this kind of land in the United States, some of it burned over, that is causing our present shortage of timber in the United States.

These are some of your problems, then, as I see them—the need of better fire protection by the woodlot owner; the de-

votion of wet land to timber crops for the veneer and other industries until it is needed for farming; the keeping of the hills in timber both for its direct and indirect value; the stopping of timber devastation on land which never was or never will be suited to agriculture, thus increasing our acreage of waste land; and a respect on the part of large companies for the surface value of that land as a timber growing proposition, as well as the values which lie beneath the surface, realizing that it may yield a fair profit on the investment.

NOTE: This talk before the members of the Illinois Academy of Science and the people of Carbondale was made from lantern slides. Perhaps a more appropriate subject would have been "The Better Care of the Forest Resources of Southern Illinois and the Relation of Those Forests to the Industries and Economic Welfare of the Region."

R. B. MILLER, Survey Forester.

SLIDES SHOWN BY MR. MILLER

"UNDEVELOPED FOREST RESOURCES OF SOUTHERN ILLINOIS"

(FIRST SET) FOREST FIRES.

Slides showing fires burning from Bald Knob, Union County, March, 1920. Bad fires reported this last spring and most of the timber burned over every two years. Bald Knob, April 28th.

(SECOND SET) GULLYING LANDS.

Erosion, forming gullies, on yellow silt loam soil when this has a grade of *over 800 feet to the mile*. (Weller.) Keeping this covered with trees would prevent this waste.

(THIRD SET) THE VENEER INDUSTRY.

SHOWING MILLS AT JONESBORO AND COBDEN.

Shows that a supply of bottomland timber will always be needed and is vital to the fruit growing industry of the

region around Anna and Cobden. Increasing prices for tomato crates, berry boxes, hampers and baskets can be counteracted by growing elm, sycamore, gums, maples, etc., on land too wet for agriculture. No slack cooperage plants in the region but barrels shipped in cost \$1.50 each when they might be made from veneered staves. Such wet lands might be used for forests and game refuges.

(FOURTH SET) TIE TREATING PLANTS.

Took up the subject of decay in timber and the use of preservatives, like creosote, to make cheap timbers as durable as white oak, thus saving the oak for saw timber, furniture, etc. Showed views in such plants as they have at Carbondale and Marion, where ties are treated by the pressure process. More ties should be grown locally instead of clearing so much bottomland timber.

(FIFTH SET) STATE PARK SITES.

A set of slides showing "Fern Cliff," a beautiful little spot near Goreville, Illinois. We need such places and should acquire them now before their pristine beauty is destroyed. The southern Ozarks abound with these spots for state parks which should be connected up with good roads for tourists, thus showing people what is in this part of the State. We need such places for rest and recreation and for their scientific and geologic interest. They will delight the botanist, the geologist, the lover of wild life and the recreationist, and be of lasting value to the State.

R. B. MILLER.