

NATURAL REFORESTATION OF STRIP MINES OF SALINE COUNTY, ILLINOIS

CLARENCE BONNELL

Township High School, Harrisburg, Illinois

The workable veins of coal which underlie the northern half of Saline County, Illinois, crop out along a northeast-southwest line southwest of Harrisburg, the county seat. Harrisburg is near the center of the county.

Prior to 1900, slope mining was carried on in a few places in hillsides along this outcrop. Later a number of shaft mines were operated in the deeper coal north of the outcrop. The depth of the coal is increasingly greater north of the outcrop and reaches depths of 500 and 600 feet at the north boundary of the county.

The first mining with steam shovels in this vicinity began some three miles southwest of Harrisburg about 1925. Stripping is a means of recovering coal which lies within 10 to 60 feet of the surface, usually where the overburden is too weak to permit mining from shafts. Slope tunnels occur where the depth of the coal is greater and the cover permits. Some strip mines extend to areas which have been mined-out from shafts farther north.

At the Sahara Coal Company's great washing plant several miles southwest of Harrisburg, both strip and slope mining are done on a scale much greater than was done by smaller companies in the period some 15 to 20 years ago. At Sahara No. 5, the No. 6 coal is brought to the surface by an endless conveyor from a slope mine which operates in coal too deep to be obtained by stripping. Another vein under the strip is also brought out by the belt system. The endless belt in long slopes will probably be used in the future when the deep coal beyond the old shaft mines is taken out from northern Saline and southern Hamilton counties.

Artificial planting of black locust, pines, etc., is carried on by Sahara and other large companies in the more recent stripping operations. This gives promise of much success.

This account has to do more particularly with the unplanted early strips

mentioned above where Nature has taken over reforestation of the abandoned dumps which stripping with steam shovels has left southwest of Harrisburg.

Trees, mostly cottonwoods, ranging up to six inches in diameter may be seen from State Highway No. 34 at the extreme east end of these early workings. The prevalence of this species here is probably due to the ease with which wind borne seed were scattered, though there is a claim that some seeds were scattered by man and even that small trees were set.

There is every reason to believe that black locust, walnut, hickory, elm, and other valuable native species would be growing among the cottonwoods if their seeds had been distributed.

A considerable area has recently been leveled by use of power machinery. One mining engineer estimated that such leveling could be done at a cost of fifty dollars an acre in normal times. Excellent gardens have been grown on some of these dumps where rainfall and capillary action from below are the only sources of water. Berries and fruit trees should grow well here. A peach tree in full blossom and an apple tree with buds just bursting were seen a few weeks ago at another location on the dump.

Drainage ditches bordering the southern edge of the dumps at a point where operations began earlier than at the area just described have an abundant growth of native species which have been seeded by water carriage in addition to wind and animals. It is only a question of time till seeds from these ditches and from growths along land lines will be carried to the higher lying hummocks. Trees 30 feet high stand on a near-by land line which was entirely cleared of timber a generation or two ago.

Further southeast, there is a good showing of young ash trees on the very top of a dump where a source of seed has been near enough for transportation by natural means.



Fig. 1.—A typical reforestation strip mine.

Still further southeast, elm, and oak with cottonwoods of greater diameter than the trees mentioned before are found. This is where the earliest striping was done nearly 20 years ago. This is at the "Blue Hole," a strip of water three eighths of a mile long, where the steam shovel made its last trip. It is bounded on the north by a clay bank of undisturbed top soil and on the south by the dump of soil and shale taken from it.

The "Blue Hole" gets its name from the color of its clear water. Some say that is due to copperus in the water but good fishing is supplied by bass, crappie, bluegills, and catfish. It is frequented by bathers. Some drownings have occurred there.

Back of the first line of humps from the water and between it and others there is a broad level area which apparently was used by trucks in getting coal out. This has a fine growth of sweet clover. The humps on either side grow it also. The material in this locality is clay and shale with no limestone but it

is sweet enough to grow legumes abundantly.

Whenever the scarcity of land in the vicinity will justify the cost of leveling, men will take over the area for fruits and ordinary farm crops. Areas which are not leveled and are let alone will eventually produce a succession of trees which will be similar to the natural growth which originally covered all of Saline County. Parts of the area may be taken over for pasture land without leveling.

Whether such strips will be made level and again used for general farming or left as they are and planted in trees, they will eventually be returned to use. If the processes of Nature go on unassisted, they will at last become forests. There is nothing more permanent than the land. Man may abuse it or overturn it but it will eventually revert to its original state of fertility if left alone. Only where it is washed away is it lost. Most strip mines operate on level land where washing away is of less importance.