

TREES FOR RECLAMATION IN THE EASTERN UNITED STATES

A WEST VIRGINIA PERSPECTIVE

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Traditionally, in West Virginia, trees have been an integral and important part of the reclamation program. Moreover with the advent of Public Law 95-87, it certainly would appear that trees are destined to play increasingly diverse and important roles in the field of reclamation.

This symposium presents a unique opportunity for a state regulatory agency to present its problems and views with regard to the utilization of trees for reclamation.

A chronological evaluation in West Virginia of reclamation laws and regulations show that trees were the primary revegetation and stabilization tool utilized in the era prior to 1967. In 1967, the State Legislature passed a completely revamped surface mining act which recognized the value of quick stabilization and mandated increased emphasis on grass species toward this end. Tree species, however, remained an important utility revegetation tool.

The passage of the 1971 Surface Mining and Reclamation Act saw increased importance placed on fast growing, effective and permanent vegetative species which would enhance and promote effective stabilization. Obviously, an increased emphasis on grasses and legumes resulted. In fact, trees were only required on slopes that were generated in excess of 20° at which point dual grass and tree treatment were required. This is not to say that trees were disapproved of, they were merely deemphasized in favor of promoting quick stabilization of disturbed lands.

The Surface Mining Control and Reclamation Act of 1977 passed by Congress in August of that year, places renewed interest in tree species for reclamation. The Act and the myriad of regulations subsequently promulgated placed new mandates on land use restoration, post mining land uses and the establishment of vegetative cover of the same

seasonal variety native to the area.

The apparent result of this federal legislation will be increased demand for tree seedlings and seed in greater numbers and varieties than ever before. Therein, however, lies some of the problematical factors involved in mandates such as those suggested by the Federal Surface Mining Act.

With this in mind and as a state regulator facing imminent deadlines and fully realizing that trees are a very important and integral portion of any effective reclamation program, we in the West Virginia Division of Reclamation would like to detail problems we foresee or have experienced and request research where appropriate and also to offer our assistance wherever it may be helpful.

The planting of tree seedlings has been the most proven technology of establishing a viable stand. Beyond traditional species (black locust, pinus sp., black alder, etc.) it is difficult to find sources for additional and perhaps, more beneficial species. It remains difficult for state nurseries to provide additional stocking species unless specific commitments are established. Many other states probably share this problem.

West Virginia would like to suggest that further research be established which would promote and define additional species which would be economical and adaptable for reclamation usage in the Appalachian Region. The Division of Reclamation, in concert with the Division of Forestry, will also be working on this problem with hopes of obtaining a vigorous program of forest restocking beneficial to all concerned.

Direct seeding of tree species is becoming an increasingly interesting concept which is not new to West Virginia. Direct seeding of some species, particularly black locust, has been used for several years with good success.

Direct seeding of most other species has met with mixed success, unfortunately, most have resulted in failures. Largely due, most experts feel too intense competition with the grass species which must be planted.

West Virginia again would like to suggest that research be intensified in this regard which would provide additional seed sources and provide an economical and efficient method of obtaining a viable tree stand through direct seeding methodology. West Virginia is also currently exploring direct seeding techniques in cooperation with the Steering Committee on Surface Mining which is made up of the Department of Natural Resources, United States Forest Service and West Virginia Surface Mining and Reclamation Association under a tripartite agreement for surface mining research.

West Virginia is also exploring through new regulations the concept of commercial forest lands as a viable alternate post mining land use for mountain-top removal operations. We anticipate considerable resistance on this

course of action from the Office of Surface Mining. However, West Virginia feels the intent of the federal law was not to negate a very valuable resource, particularly in a timber producing state such as West Virginia. West Virginia solicits any support, both from the research or experience standpoint, that any agency or state may be able to provide.

The results of this symposium should provide many opportunities to renew old research or establish new avenues for research and West Virginia's Department of Natural Resources is ready to avail its expertise towards this end and to provide whenever possible support for research activities which would enhance the art or as we prefer, the science of reclamation.

We would also like to commend the organizers of this symposium for their farsightedness and look forward to more regular gatherings where we can advance the State of the art through cooperation to everyone's mutual benefit.