RECLAIMED LAND: FOREST AND WOODLAND MANAGEMENT

Donald H. Graves
Associate Extension Professor
Department of Forestry
University of Kentucky
Lexington, Kentucky

and

Walter H. Davidson
Research Forester
U.S. Forest Service
Forestry Sciences Laboratory
Princeton, West Virginia

ABSTRACT

The early days of surface mine reclamation efforts were characterized by a concerted effort to stabilize the sites by planting trees. Such plantings date back to the 1930's. The U.S. Forest Service, Soil Conservation Service, universities, and industry-sponsored coal associations established research and demonstration sites in several states. Many of these plantings were so successful that it is difficult to identify the sites as being previously mined. Researchers at the Southern Illinois University at Carbondale have identified some such plantings that are now determined to be the highest site index for white oak in the state of Illinois.

As the individual states began to adopt regulations, tree planting became more important since previous efforts had been so successful. Research was intensified and the Forest Service Reclamation Research Project was established. Their efforts, as well as those of the universities, were concentrated on determining species selection and the interactions of grasses, legumes, and soil modifiers to rapidly stabilize the soils and return the areas to productive forests.

The Federal Surface Mining and Reclamation Act (PL 95-87) was enacted in 1977. New research efforts were initiated to develop planting practices that would satisfy the requirements of the Forestry and Wildlife Land Use Option categories. The stringent grading and compaction requirements and the necessity to establish a dense grass and legume cover in the first growing season after mining has made the implementation of these land uses almost a "thing of the past." It is simply easier and less expensive for a company to secure a variance and establish a "Hay and Pasture" land use option without the additional costs and problems associated with those uses already considered to have a lower economic value by regulatory agencies.

Much of the native soil underlying eastern forests is thin and may be considered toxic by PL 95-87 standards. It is not unusual to find soils ranging from pH 3.2 to 4.0. Careful selection of alternate strata placement in an uncompacted manner is usually a superior growth medium to the old B and C soil layers since they require less modifications to promote growth. If the Forestry and Wildlife land use options are to ever again be viable alternatives in the industry reclamation scheme, alternative grading regulations need to be developed.