

ARRI'S forestry reclamation approach (FRA)

ARRI advocates a tree-planting technique known as the **Forestry Reclamation Approach (FRA)**.

The FRA provides specific methods of preparing mine sites and planting trees to ensure their survival and growth. The FRA has been developed through scientific research at several leading universities.

The FRA:

- ✓ Achieves cost-effective, regulatory compliance for the coal operator;
- ✓ Creates biologically productive forests that increase the land value for the landowner; and
- ✓ Provides watershed protection, wildlife habitat, carbon sequestration, and other important environmental services.



A dump truck applies the final four feet of non-compacted growth medium to a mine site.

Topsoil and topsoil substitutes dumped in close, tight piles.



Aerial view of FRA research plots in Kentucky.

Young red oak tree on Tennessee mine site planted using the FRA.



17-year-old white pines: 1) planted in compacted soil; 2) grew in natural Appalachian forest; and 3) planted using the FRA.

5 steps of the FRA

- 1 Create a suitable rooting medium for good tree growth that is no less than four feet deep and comprised of topsoil, weathered sandstone and/or the best available material.
- 2 Loosely grade the topsoil or topsoil substitutes established in step one to create a non-compacted growth medium.
- 3 Use groundcovers that are compatible with growing trees.
- 4 Plant two types of trees: *early succession species for wildlife and soil stability* and *commercially valuable crop trees*.
- 5 Use proper tree-planting techniques.

