



# TEXAS A&M FOREST SERVICE

## *Reforestation: Subsoiling for Site Preparation*

Subsoiling is used primarily as a method of mechanical site preparation for heavy soils on cutover and openland sites that have a compacted layer at or below the surface inhibiting root growth and development. This layer can be the result of mining for gravel, past crop plowing, heavy grazing over long periods of time, or the mere presence of a hardpan or clay layer that restricts root growth to the upper layers of the soil surface.

### **Description:**

Subsoiling, also known as ripping, is accomplished through the use of a rubber tired tractor on openland sites, a dozer or other heavy equipment on cutover sites that pulls a ripping bar through the soil to break up or fracture the soil structure to a minimum depth of approximately 18 inches. The recommended time frame for subsoiling is during the months of July through October when the soil is generally dry and crumbly. Adequate rainfall (2 inches or more) must follow this operation to settle the rip back in before the planting operation is conducted. Planting is generally conducted along the edges of or within the ripped lines.

### **Benefits:**

This operation is most beneficial to newly planted seedlings in breaking through a hardpan allowing faster and deeper growth of roots through this layer. The fracturing of the rooting zone promotes better root growth and development over a shorter period of time allowing seedlings to become established faster. The disturbance along these rips provides a means of better infiltration of rainfall into the soil providing crucial moisture to newly planted seedlings and improves the overall quality and survival of the planting job in otherwise unfavorable conditions.

### **Other Recommendations:**

Mowing is recommended prior to subsoiling on openland sites in order to reduce the amount of organic matter buildup on the ripping bar.

