



Soil texture and drainage are two primary site conditions that work together to determine tree species suitability on a site. Soil texture affects the sites drainage pattern and site drainage affects which species will survive and how well they will perform. Once you have determined soil texture and drainage you can begin to make recommendations on the trees species which may perform best on the site. **The table below is a basic guide to matching tree species with soil texture/drainage combinations.**

As a general guide when determining your soil properties you should check every hectare of land. Also, you should pay special attention to hilltops, depressions, and riparian areas. Consulting a county soils map is also a good way of determining site soil characteristics. Observe forests and trees growing on nearby sites with similar soils and topography and take clues from the trees growing there.

FACTOID: Riparian buffers are often well-drained areas due to their proximity to a watercourse, even though they are in low-lying areas.

SOIL TEXTURE	NATURAL DRAINAGE					
	Well-drained		Moderate		Imperfect	
Sand	White pine Red pine European larch Norway spruce Cottonwood	Hard maple Red oak White cedar Poplar Hackberry	White pine White spruce Norway spruce European larch White ash Cottonwood	Red oak Black cherry Poplar White cedar Hackberry	White cedar Green ash Tamarack	Bur oak Red maple
Loam	White pine Red pine European larch Norway spruce White spruce Hard maple White ash Red oak Cottonwood	Black cherry Hackberry Red maple Basswood Black walnut Bitternut hickory White cedar Poplar	White pine Red pine White spruce Norway spruce European larch Hard maple White ash Red oak Black cherry Basswood Tamarack Hackberry	Red maple Bur oak Silver maple Black walnut White oak Bitternut hickory White cedar Poplar Green ash Willow Cottonwood	Norway spruce Silver maple Swamp white oak Green ash	White cedar Tamarack Red maple Bur oak
Fine Loam	White pine Red pine White spruce Norway spruce European larch Hard maple White ash Red oak Cottonwood	Black cherry Basswood Red maple Black walnut Bitternut hickory White cedar Poplar Green ash Bur oak	Red pine Norway spruce European larch Hard maple White ash Red oak Red maple White pine	Black walnut White oak Bitternut hickory Beech White cedar Poplar Cottonwood Bur oak	Norway spruce Silver maple Red maple	White cedar Tamarack
Clay	Black walnut Red maple White cedar Green ash	White pine Norway spruce European larch	Norway spruce White ash Cottonwood Hard maple	Poplar White cedar Black walnut White pine	Silver maple Green ash	Tamarack

