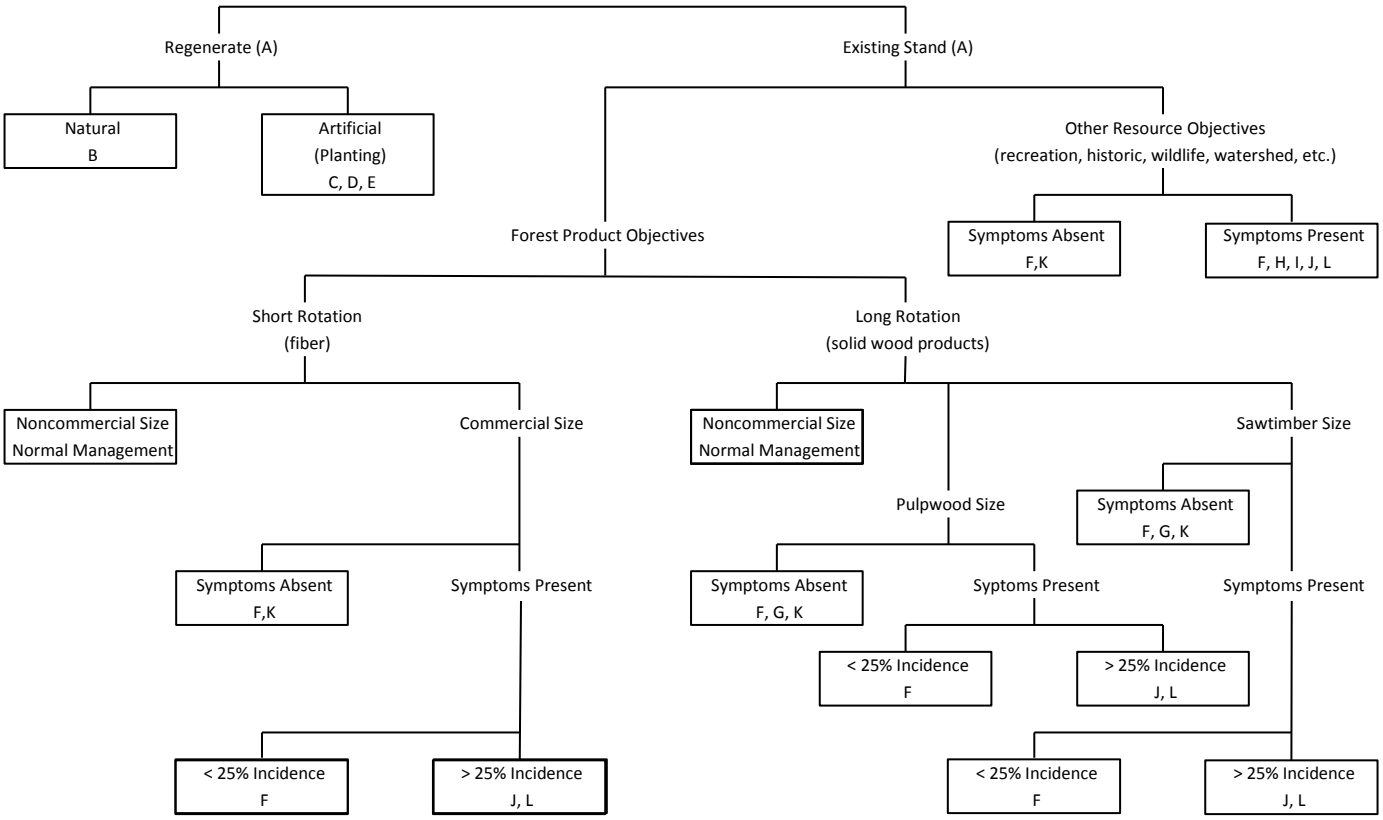
Management Options on Moderate to Severe Hazard/Risk Loblolly Decline Sites



Description of Management Options Based on Loblolly Pine Decline Hazard/Risk Assessment

A – Determine Hazard (Regeneration) or Risk (Existing Stand) using Hazard Maps created by Forest Health Cooperative. If falls in the low risk category, then normal management.

B – Favor more tolerant genotypes if using seed tree or shelterwood cut.

C – Consider planting more tolerant genotypes, more tolerant species such as longleaf or slash (if management objectives allow) or mixed pine stands.

D – Decrease planting density of species. This will reduce competition and lower stress. It will eliminate pre-commercial thinning disturbance and may delay the onset of pine decline and lengthen rotation by reducing insect populations.

E –Give seedlings as stress free environment as possible. This may reduce infection by inoculum in root material remaining in the soil.

F – Conduct stand surveillance as early detection will aid in proper management planning See K, L.

G – Thin to reduce stress and southern pine beetle/Ips risk while promoting tree growth and vigor.

H – If possible, thin fall or winter (Aug – Sept or Dec – Feb) while insect populations are low, if possible, to reduce attack and population increases in root-feeding bark beetles. If sites are also high risk for Annosum Root Rot remember to treat stumps with borax.

I – Manage species composition of stands by favoring the more resistant pine species and hardwood mix. This will reduce insect populations and fungal inoculum. Hardwoods are immune to the fungus.

J – Minimize site disturbance, tree injury and avoid overlapping disturbances (e.g., thin-fertilization, thin-burn, drought-burn) to extend stand longevity.

K – Consider fertilization to increase supply of nutrients and increase vigor of trees if root systems are not compromised. Currently, decoupling fertilization from thinning with at least a two year wait to allow trees to recover from disturbance is recommended on high and severe risk sites.

L – Consider regeneration of the stand on short rotations, especially when symptoms appear on more than 25% of the trees before age 25. If healthy stocking levels drop below 60 BA in saw timber stands then regeneration is recommended as stands in this condition are susceptible to both loblolly pine decline and southern pine beetle losses.