

SILVICS ASSIGNMENT – SPECIES TABLE

**This silvics sheet (V.1.2) was compiled by the 60 trainees who participated in the Certificate Course in Ecosystem Silviculture, 2005 – 2007.

Tree Common Name: Aspen

Tree Scientific Name: Populus tremuloides

TREE SPECIES ADAPTATIONS		
GENERAL		
	Longevity/typical life span for Lake States	60+, 135 yrs max, typically 60-80 yrs
	Maximum stem height	120 ft (80 typical)
	Any mycorrhizal requirements/info.	None known
REPRODUCTION		
	Minimum seed bearing age	2-3 years, optimum 5-15 yrs
	Fruit type (cone, catkin, and so on)	catkin
	Periodicity of large seed crops	4-5 yrs
Seed dispersal	Date	May-June
	Mode ¹	Wind, Water
	Distance (max)	1,000 meters
Seed Characteristics	Longevity	2-4 years in proper storage, 2-4 weeks in nature
	Weight	Very light, 156,000/oz
	Germination percentage	75% in 2 weeks, rapidly declining after
	Time of ripening	May
	Viable seed percentage	95%
	Sprouting ability	Yes-suckers, prolific
	Seedling regeneration strategy ²	Suckering, current seed crop
	Any cold stratification period	no
	Preferred seedbed ³	Moist mineral soil
ESTABLISHMENT		Seed Suckers
Seedbed Conditions	Light requirements	Intolerant – high not at initiation
	Soil surface temperatures	5-29 C max at 74 degrees Moderate 41 – 84 degrees
	OM thickness	
	Shrub/herb cover	
	Moisture	Minimal medium
	Any soil pH requirements	5.3-6.5 5.3-6.5
	Seedling growth rate information	Up to 1' rapid for 20 yrs rapid 5'
DEVELOPMENT		
Juvenile environmental requirements	Light requirements	High
	Shade tolerance	Low
	Growth rates/competition info	Fast (12 ft in 3 yrs)
	Response to release/age relations - juvenile	Excellent as a young tree
	Juvenile growth rate information	6-12 in first year, depends on site conditions
	Height growth determinate/indeterminate	Indeterminate ex: some conifers grow a specific amount then stop, regardless of conditions next yr. Many deciduous trees will grow then stop then grow again if conditions are good.
	Self-pruning	Mostly, excellent
DAMAGING AGENTS – ANY STAGE⁴		
	Flowers	

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TREE SPECIES ADAPTATIONS		
	Fruits	
	Leaves	
	Growth	
	Decay/Defect	
	Bark	
	Roots	
WILDLIFE/CONSERVATION CONSIDERATIONS		
	Cavity tree potential ⁵	Med. High, good
	Common mast consumers	Rabbits, Grouse, Beaver, Deer,
	Known RTSE issues	
	Known principal associated species (avian, mammal, herps, and so on)	
HABITAT		
	Forest Ecological System	FD, MH
	NPCs	FDn32,33,43 FDc23,24,25,34 MHn35,44,45(little),46 MHc 26,36,37
	Forest structure	Even aged, pioneer
Mature tree environmental requirements	Moisture ⁶	Mesic, High
	Nutrients ⁶	Demand is moderate, Low
	Shade tolerance ⁷	Low, intolerate
	Response to release/age relations - mature	Little response, similar to birch, dissimilar to maples, low as mature, Self thins > middle aged
	Soil pH (extremely acid or alkaline soil requirements only)	Not terribly fussy, prefers med. Basic soil
	Drought tolerance ⁷	Somewhat tolerant, becomes more susceptible to hypoxalin, low
	Water-logging	Somewhat tolerant
	High temperatures	Low, short durations
	Windfirmness ⁸	Moderate, tends to blow down as young
Canopy	Gap size	When there is wind throw, a big area tends to go down, > ha – 2.5, >1 ha
	Density	open

- 1 Seed dispersal – mode. Select from the following: wind, mammals, water, birds
- 2 Seedling regeneration strategy. Report the dominant seedling strategy from the following: Seedling Bank, Soil Seed Bank, Current Seed Crop, Serotinous Cones.
- 3 Preferred seedbed. Mineral Soil, Humus, Humus/Soil Mix, Pioneer Mosses, Sphagnum Mosses, Decaying Wood, Burned Duff, Burned Organic Soils, And Organic Soils
- 4 Damaging Agent – Any stage including: fruit, seedlings, juvenile, mature. Damaging agents – Mechanical, Insect, Disease, Herbivory and so on
- 5 Cavity tree potential – “Managing for the birds” booklet
- 6 Environmental requirements – moisture & nutrients. Low, Moderate, and High
- 7 Environmental requirements – shade & drought. Very Tolerant, Tolerant, Intermediate, Intolerant, Very Intolerant
- 8 Windfirmness - not stem breakage
- 9 Forest structure – multi or single layers? Example, forbs (ground nesters), shrubs, canopy, co-dominants, dominants