

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: White Pine

Tree Scientific Name: Pinus strobus

TREE SPECIES ADAPTATIONS		
GENERAL		
	Longevity/typical life span for Lake States	200-450 yrs
	Maximum stem height	158' (200')
	Any mycorrhizal requirements/info.	
REPRODUCTION		
	Minimum seed bearing age	Best at 20-30, Up to 90 yrs
	Fruit type (cone, catkin, and so on)	Cones
	Periodicity of large seed crops	3-5 yrs
Seed dispersal	Date	Aug - Sept
	Mode ¹	Wind, squirrels, gravity
	Distance (max)	200' – 700', caching distance, 180'-600'
Seed Characteristics	Longevity	
	Weight	26,500/lb, 17,500-53,000, 27,000/lb
	Germination percentage	60-90%, 93-100%
	Time of ripening	Late August
	Viable seed percentage	Variable
	Sprouting ability	None
	Seedling regeneration strategy ²	Current seed crop, seedbank
	Any cold stratification period	60 days at 33-41 degrees F
	Preferred seedbed ³	Moist Mineral, disturbed or undisturbed layer
ESTABLISHMENT		
Seedbed Conditions	Light requirements	8-16 hrs per day, partial shade for germination
	Soil surface temperatures	Moderate 20-30 degrees C
	OM thickness	Thin
	Shrub/herb cover	Preferred seedbed polytrichium moss, short grass, susceptible to competition
	Moisture	Moist
	Any soil pH requirements	> 0.40, <8.5
	Seedling growth rate information	3-5 yrs for establish
DEVELOPMENT		
Juvenile environmental requirements	Light requirements	50% full sun for max growth, > 20% full sun survival
	Shade tolerance	Intermediate, up to 80% shade
	Growth rates/competition info	Best without root comp. and hdwd comp, slow then rapid
	Response to release/age relations - juvenile	5-10 yrs release, < 30 yrs with >1/3 crown
	Juvenile growth rate information	5" @ 3 yrs, 12" @ 5 yrs, 54" @ 8-10 yrs 10-20 yrs 54"/yr, 36" yr/comm., 16" yr ave
	Height growth determinate/indeterminate	Determinate 10-15 yrs peak, 3" growth years @55'
	Self-pruning	Good in even age, well stocked stands
DAMAGING AGENTS – ANY STAGE ⁴		
	Flowers	
	Fruits	

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TREE SPECIES ADAPTATIONS		
	Leaves	
	Growth	
	Decay/Defect	
	Bark	
	Roots	
WILDLIFE/CONSERVATION CONSIDERATIONS		
	Cavity tree potential ⁵	Excellent
	Common mast consumers	Pine warbler, grosbeak, snowshoe hare, deer
	Known RTSE issues	
	Known principal associated species (avian, mammal, herps, and so on)	Example: salamanders in duff of northern hardwoods
HABITAT		
	Forest Ecological System	FD and MH
	NPCs	MHn 35, MHn 44, MHc26,38,47, FDn 12, 22, 32, 33, 43, FDC 24,34
	Forest structure	Multi Layer
Mature tree environmental requirements	Moisture ⁶	Low to Moderate
	Nutrients ⁶	Moderate
	Shade tolerance ⁷	Intermed. can tolerate up to 80% shade
	Response to release/age relations - mature	30-50 yrs < 30 yrs well
	Soil pH (extremely acid or alkaline soil requirements only)	5.1 – 6.5 (>4)
	Drought tolerance ⁷	Tolerant
	Water-logging	Low
	High temperatures	Moderate
	Windfirmness ⁸	Good in open
Canopy	Gap size	
	Density	

- 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