

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: Jack Pine

Tree Scientific Name: Pinus banksiana

TREE SPECIES ADAPTATIONS		
GENERAL		
	Longevity/typical life span for Lake States	60-80 yrs max 230, 185 max
	Maximum stem height	100', average 65-80'
	Any mycorrhizal requirements/info.	Yes, needs calcareous soils
REPRODUCTION		
	Minimum seed bearing age	5-10 yrs, 40
	Fruit type (cone, catkin, and so on)	Serothouse cone
	Periodicity of large seed crops	Every 3-4 yrs, regular
Seed dispersal	Date	Late - Any, dry conditions more common
	Mode <sup>1</sup>	Wind, caching
	Distance (max)	2x tree height, low
Seed Characteristics	Longevity	5-10 yrs, 6 yrs on tree
	Weight	Light 130,000/lb
	Germination percentage	60%, mineral soil
	Time of ripening	Mid Sept-Oct
	Viable seed percentage	Down with age
	Sprouting ability	none
	Seedling regeneration strategy <sup>2</sup>	Serotinous to non-serotinous
	Any cold stratification period	14 days cold
	Preferred seedbed <sup>3</sup>	Mineral soil, burned duff
ESTABLISHMENT		
Seedbed Conditions	Light requirements	11-30 % full sunlight, some shade beneficial
	Soil surface temperatures	60-80 degrees, seeds germ @ 64 F
	OM thickness	Thin (tolerates up to ½")
	Shrub/herb cover	Minimal competition
	Moisture	Water table 6 – 10 ‘
	Any soil pH requirements	4.5-7
	Seedling growth rate information	2" yr 1, 6" yrs 2-3, 12-36" yr 4, slow 1 <sup>st</sup> 3 yrs then faster,
DEVELOPMENT		
Juvenile environmental requirements	Light requirements	Full sunlight
	Shade tolerance	Very intolerant
	Growth rates/competition info	1-1.5 ft on med. sites
	Response to release/age relations - juvenile	Good response
	Juvenile growth rate information	Fast 4.5 ‘ in 5-8 yrs, 20 yrs 18-30'
	Height growth determinate/indeterminate	determinate
	Self-pruning	Yes, good later self pruner than other pines
DAMAGING AGENTS – ANY STAGE <sup>4</sup>		
	Flowers	
	Fruits	
	Leaves	

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TREE SPECIES ADAPTATIONS		
	Growth	
	Decay/Defect	
	Bark	
	Roots	
WILDLIFE/CONSERVATION CONSIDERATIONS		
	Cavity tree potential <sup>5</sup>	Fair
	Common mast consumers	Squirrels , crossbills, nuthatch, small rodents
	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
	NPCs	FDs 27, FDw24,34 FDs 9, FDn12,33,32, FDc 12,23,24,25,34
	Forest structure	Even-aged early successional
Mature tree environmental requirements	Moisture <sup>6</sup>	Low to very low
	Nutrients <sup>6</sup>	Low to very low
	Shade tolerance <sup>7</sup>	Very intolerant
	Response to release/age relations - mature	Low response (prone to ice and snow dry_
	Soil pH (extremely acid or alkaline soil requirements only)	Acid soils
	Drought tolerance <sup>7</sup>	Very tolerant
	Water-logging	Generally intolerant but may be tolerant
	High temperatures	Tolerant at older ages
	Windfirmness <sup>8</sup>	good
Canopy	Gap size	large
	Density	Low 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