

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: Basswood

Tree Scientific Name: Tilia americana

<b>TREE SPECIES ADAPTATIONS</b>		
<b>GENERAL</b>		
	Longevity/typical life span for Lake States	100-150 yrs (rarely 200 yrs)
	Maximum stem height	20-30 m, or 130ft, 140ft (85-90 typical)
	Any mycorrhizal requirements/info.	None, mycorrhizal for establishment
<b>REPRODUCTION</b>		
	Minimum seed bearing age	10 - 15 yrs
	Fruit type (cone, catkin, and so on)	Woody drupes
	Periodicity of large seed crops	annual
Seed dispersal	Date	Nov - winter
	Mode <sup>1</sup>	Gravity, animals, wind
	Distance (max)	150 m (wind), 2 tree lengths
Seed Characteristics	Longevity	Imperm. Seed coat dormant, delayed germination (8 months to 7 yrs)
	Weight	3,000-8,000 /lb, 31 mg
	Germination percentage	90% lab, 20-30% stratification
	Time of ripening	Sept/Oct
	Viable seed percentage	< 5%
	Sprouting ability	Stump sprout - prolific
	Seedling regeneration strategy <sup>2</sup>	Seed bank, current seed crop
	Any cold stratification period	110-130 days @ 36-40 F
	Preferred seedbed <sup>3</sup>	2 degree temp, well decomposed seed bed, mineral soil
<b>ESTABLISHMENT</b>		
Seedbed Conditions	Light requirements	Partial shade, 25% full sunlight
	Soil surface temperatures	2 degree C, cool
	OM thickness	Not much, thick
	Shrub/herb cover	25% shading aids survival, tolerant
	Moisture	Mod. To high
	Any soil pH requirements	none
	Seedling growth rate information	2-4" /yr 1-2ft w/sprout
<b>DEVELOPMENT</b>		
Juvenile environmental requirements	Light requirements	25% shading for early survival, >35 ft acre for residuals
	Shade tolerance	Needs more light, intermed as juvenile
	Growth rates/competition info	Highest potential, faster than most hdwds
	Response to release/age relations - juvenile	Great, aggressively
	Juvenile growth rate information	6" tall in 2-3 yrs, grows fast
	Height growth determinate/indeterminate	indeterminate
	Self-pruning	Yes, susceptible to epicormic branching
<b>DAMAGING AGENTS – ANY STAGE<sup>4</sup></b>		
	Flowers	
	Fruits	

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TREE SPECIES ADAPTATIONS		
	Leaves	
	Growth	
	Decay/Defect	
	Bark	
	Roots	
WILDLIFE/CONSERVATION CONSIDERATIONS		
	Cavity tree potential <sup>5</sup>	High
	Common mast consumers	Mice, Squirrels, Chipmunks
	Known RTSE issues	
	Known principal associated species (avian, mammal, herps, and so on)	
HABITAT		
	Forest Ecological System	Flood plain, wet mesic hardwood forest
	NPCs	N WFn55, all mesic hardwood sites, MHn 35, 44, 46, 47 FFn 57 All MH and some southern FD
	Forest structure	Complex, Multi-layered
Mature tree environmental requirements	Moisture <sup>6</sup>	Moderate
	Nutrients <sup>6</sup>	High demands nutrients
	Shade tolerance <sup>7</sup>	Tolerant
	Response to release/age relations - mature	Good, Very good, Excellent response to release
	Soil pH (extremely acid or alkaline soil requirements only)	4.5 – 7.5 (most often basic)
	Drought tolerance <sup>7</sup>	Intolerant
	Water-logging	Can stand moderate amount
	High temperatures	Moderate to Intolerable to high temps
	Windfirmness <sup>8</sup>	High
Canopy	Gap size	¼ to 1 acre in all aged mgt, sw cut, 30-40' gap oak
	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