

# TREE SURVEY

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Take the opportunity to learn more about the health and ecology of the trees on your golf course. Complete the questionnaire by circling the number answer that best describes your golf course. The numbers are based on the assumption that the course is an 18-hole facility. If your course is smaller or larger, the answers should be adjusted accordingly. Review the responses to see how well your facility performs!

columns, take a moment to visualize your golf course void of this tree after a severe infestation. Possibly a scarier thought would be the invoice for removal of the trees. Besides disease pressures, the weak wood of green ash provides a ready supply of "clean up" after storms. Currently a supply glut on the market makes this tree a bargain and financially appealing to the purchaser; in final analysis, the "good buy" is not a bargain.

Ref.#	TREE POPULATIONS	NUMBERS			
		0-36	37-54	55-72	72+
1	Green Ash	0-36	37-54	55-72	72+
2	Female/fruited Green Ash	0	5-10	10-15	15+
3	Silver Maple (mature)	0-5	5-10	10-20	20+
4	Newly planted Silver Maples	0	1-3	4-10	10+
5	Boxelder	0	1-5	6-10	10+
6	Blue Spruce	0-10	11-20	21-40	40+
7	Black Hill Spruce	0-10	11-20	21-40	40+
8	Aspen	0-5	6-20	21-40	40+
9	Mature Crabapple Trees with disease & insect problems	0	1-5	6-10	11+
10	'Greenspire' Littleleaf Linden	0-5	6-18	19-36	36+
11	Percentage of new trees purchased were "park or landscape" grade	0%	25%	50%	75%
12	Percentage of young trees (less than 10 years of age) with damaged bark	0%	1-10%	11-50%	51-100%

2) The female or fruiting form of **Green Ash** is an inexcusably, high maintenance tree. Besides problems described in the seedless form, the fruiting form supplies an abundant amount of litter and a constant source of new green ash. Only in unique circumstances, i.e. backdrop to a green, should this tree be maintained.

3) Mature *Acer saccharium* - **Silver Maple** trees can be very beautiful and majestic trees. But an excessive number of them is a guarantee for "clean-up" crews after storms. The fact cannot be escaped . . . fast-growing trees are weak wooded. Young golf courses can benefit from the swift growth of silver maples by using them as a nurse crop. Incorporate slow and fast-growing trees within the landscape. After the slow-growing trees have reached a reasonable size, eliminate the fast growing trees.

4) Silver maple has been improved by hybridizing it with red maple. The result is *Acer x freemanii* 'Jeffersred' - **Autumn Blaze Maple**. This tree has the fast growth rate of silver maple and an exceptional red fall color. The consistent fall color of this tree is so great that the "maintenance" is justifiable.

5) *Acer negundo* - **Boxelder** is a fast growing, messy maple tree with no ornamental virtues. The number of boxelder beetles housed in one tree is disgusting. Boxelder seeds germinate in any crevice, insuring more messy trees and bugs. Pat yourself on the back if you have no boxelder trees at your facility!

6) *Picea pungens* var. *glauca* - **Colorado Blue Spruce** is a valuable component to our northern landscape; however, the use, the use, the use, the use, the use, and the over usage (get the picture?) of the plant makes it a perfect candidate for a monoculture explosion. Already numerous problems are affecting the tree . . . postpone any further plantings.

7) *Picea glauca densata* - **Black Hills Spruce** is an important evergreen contribution to the landscape but is also suffering from over usage. Sawflies are gaining momentum. The larval stage of the sawfly consumes new needle growth in late May and early June. One year of munching will not drastically alter the tree, but three years of munching will

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If your answers were generally on the left side of the survey, **CONGRATULATIONS!** Planting and caring for plant material is working. If you found answers on the right portion of the survey, the responses to the questionnaire will be helpful in your continuing efforts to improve tree populations at the golf course.

1) *Fraxinus pennsylvanicum* 'Marshall's Seedless' - **Marshall's Seedless Green Ash** is an example of a fast growing, non-fruiting, shade tree that is excessively used on golf courses. The repeated use of green ash has created a climate ideal for widespread disease and insect problems. Already, signs of disease problems (ash yellow and anthracnose) are evident. If your answer fell within the two right

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deface or kill the tree. If the larvae are treated when small, Malathion or Sevin are effective chemical controls. If the larvae have eaten for 3-5 days, they are resistant to the chemicals. Thus, the three day window of opportunity occurs at a time when golf course personnel are already stretched with work responsibilities. The need to scout and spray for one more problem is unappealing. My advice. If someone offers you a truck load of 6' black hill spruce for **FREE**, point them down the road.

8) *Populus tremuloides* - **Aspen** is a fast-growing tree with widespread distribution throughout the United States. The short life of the tree creates a non-stop task of tree removal and replanting. Particularly when a new golf course has been carved into mature forests of aspen, the maintenance can be exhausting and expensive. Trees that were once shielded in the forest are exposed to strong winds. Every storm delivers branches and trees to the ground. The solution is to admit that the aspen are a temporary tree stand and interplant with higher quality, more ornamental, trees.

9) *Malus cultivars* - **Crabapples** provide vivid color at a time when Minnesotans are craving spring. Some of the older varieties become almost defoliated by mid-summer due to disease. Improved cultivars have substantially reduced this problem. Interplant an assortment of new varieties to insure future success.

10) *Tilia cordata* 'Greenspire' - **Greenspire Littleleaf Linden** is a nice shade tree that has consistently performed well. No major problems have surfaced to date. However,

the numbers of greenspire lindens being planted are so great that when, and if, an epidemic should occur, the monoculture will be impacted.

11) The nursery industry has established criteria for determining the quality of a young tree. The price breaks offered for poor quality plant material can be a fiscal temptation too great to resist. Everyone loves a bargain! However, a poor quality tree after fifty years of maintenance, is just a poor quality tree. A premium grade tree with the same attention, yields a specimen tree. The "I saved \$50!" is short-term thinking.

12) **Question 12 is the most important one of the survey.** If the responses to 1-11 are perfect, all of the time, work and money can be negated by a bad answer to number 12. Insects, diseases, fertilizer, deer, water and more are blamed for plant material attrition. But all of the specialists in the world cannot cure the number one reason for tree fatalities on golf courses - damaged bark.

**Some golf courses are equipment rodeos.** Rodeo description: *Riders* on expensive *horses* are judged on the speed and closeness that they can navigate around *barrels* on an *obstacle* course. Substitute the underlined words with these replacements: *drivers, mowers, trees, golf.* In both scenarios, if the barrel or tree get hit enough times, replacement will be necessary. The situation is preventable. On new plantings add a 5' ring of mulch at the base of trees. (The mulch is free . . . chop the dead trees.)

With so much attention given to turf maintenance, it's easy to forget the trees on the course. But remember, they're an important component of the play of the course, and the natural beauty so important to golfers. Any questions or comments? Call 1-800-626-6429.

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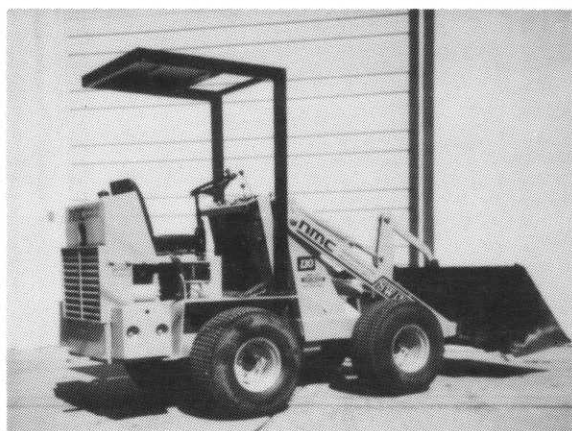
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