

In my capacity as Afton's weed inspector I am this month going to provide resources for identifying invasive terrestrial plants. I am also going to provide personal observations regarding invasive plants and trees that are often overlooked and comment on often used control methods that if misused, damage native plants. By using these resources or by hiring a knowledgeable company to insure the vegetation on your property is native, you insure that you will not get complaints from neighbors or letters from me notifying you that failure to control invasive species may result in the city doing so and charging you for the cost. Let me soften the threat, however. Only once has a resident complaint required that I send a threatening letter and in that case, the owner of the infested property promptly took care of the problem.

The following MN DNR link provides a PDF file with descriptions and images of common MN invasives:

<http://www.dot.state.mn.us/roadsides/vegetation/pdf/noxiousweeds.pdf>

A very useful pocket sized spiral booklet with heavy stock pages that I have used for many years can be purchased from the DNR Bookstore by calling 651.297.3000 during regular business hours (8 am – 4 pm CT, Monday – Friday). The Bookstore's walk-in hours are 8am - 3 pm, Monday through Friday at 660 Olive Street, St. Paul, MN. Invasive forbs and grasses are well covered in the above two resources, so I am not going to discuss either, but rather will focus on a few often-overlooked trees and shrubs.

Both Chinese Elms and Black Locust have been widely planted in Afton, each for a different original purpose. Each is invasive, spreading rapidly and displacing native trees. Black Locust was planted in ravines and gullies to control erosion; Chinese Elms were planted in open areas to provide quick growing large trees requiring little care. If you have either on your property, they should be eradicated if you desire a native environment that is nonthreatening to native plants, shrubs and trees.

Everyone in Afton is aware of Buckthorn, so coverage isn't needed, but Amur Maple is less well known and once established, equally dangerous. It out-competes Buckthorn when both grow in the same area for long. It has been planted widely for its quick growing nature and colorful orange fall leaves. No native forbs or grasses will grow under either it or Buckthorn once either dominates an area.

Now lets consider the use and misuse of invasive control methods. Many effective invasive control methods, if misused, destroy native species at the same time they eliminate the targeted invasive species. The following are the counterproductive methods I have observed being used most widely in Afton:

1. Repeated mowing during the hot summer months kills native grasses, replacing them with non-native cool-season grasses such as bromes and turf grasses (bluegrasses, fescues, and rye-grasses). The best practice is to limit spring mowing to mid-April to late May and then mow again when native grasses and forbes have gone dormant in the fall if control of invasive Buckthorn and Amur Maple is needed.
2. In non-prairie areas, blanket area mowing to control Amur Maple and Buckthorn, when done in the spring or fall, destroys native forbs that come up before the trees leaf out. It also destroys native shrubs such as Grey Dogwood, Red Osier Dogwood and, in wet areas, low growing Willows. Instead, brush saws or spot mowing should be used to maintain native plants and shrubs which will then spread into areas where the mowing has controlled invasives.

3. Many areas in Afton have been and continue to be planted in non-native coniferous trees (especially Spruces and Pines). With the exception of small stands of White Pines and Northern Red Cedars, essentially all coniferous trees in Afton are non-native, as evidenced by the lack of any complementary undergrowth, resident small animal species with the exception of red squirrels, and an inability to self-seed.

The Minnesota DNR has two useful publications available online for those interested in maintaining natural prairies:

<http://files.dnr.state.mn.us/assistance/backyard/privatelandhabitat/est-prairie-grasses-wildflowers.pdf>

and,

<http://files.dnr.state.mn.us/assistance/backyard/prairierestoration/goingnative.pdf>

The maintenance section in the latter publication is particularly useful. Be aware that for a truly native ecosystem that replicates the pre-settlement Afton biome, you should not be creating a prairie devoid of all trees and shrubs. For a more complete description of Afton vegetative communities, see the following section of Afton's Natural Resource Inventory on Afton's website:

<http://www.ci.afton.mn.us/vertical/sites/%7B255148F5-88B9-45F6-9726-DD95D24AA11D%7D/uploads/III. The Landscape of Afton.pdf>

Pre-settlement Afton consisted of roughly one-third oak savannah, one-third deciduous forest and one-third prairie. Maps at the end of this material will allow you to place your land in one of these three original biomes. In many cases, the best and cheapest path to a more natural environment is by simply controlling invasives and letting the surprisingly resilient natural species recolonize your property. I have been surprised to find plants I hadn't seen since childhood reappear once I did this on my own property.

I should note that the lay observations and conclusions contained in this series of Mayor's notes are based on personal observations made during my life in Afton. I welcome corrections and comments to the editor from the true experts among you.

Richard