



Building your 'Native Defense Team'

Research suggests that seeding native plants alongside invasive removal efforts may turn the tables in the battle against buckthorn.



What is Buckthorn?

Buckthorn (*Rhamnus cathartica*) is one of Minnesota's most aggressive and damaging invasive plants. The shrub, or small tree, is especially noticeable in woodlands when it forms dense thickets where few other plant species can co-exist.

Despite its invasive nature, buckthorn can be successfully managed, manipulated, and reduced by choosing the appropriate management and monitoring techniques.

New research from the University of Minnesota showed that heavily seeding native grasses alongside buckthorn removal efforts greatly reduces the number and size of new buckthorn trying to reclaim the site.

Key findings:

- Returning buckthorn were 47% less abundant and 81% smaller in areas where grasses were established — **about a 90% decrease returning from seed overall.**
- Seeding is most effective in woodlands with enough light to support vigorous grass growth. Grasses do not establish well in dark forests but can form nearly impenetrable thickets in more open woodlands.
- To be effective, seeding must be paired with other management strategies that prevent larger trees from resprouting (prescribed grazing, hand-pulling/cutting, forestry mulching, herbicide treatments, etc.).
- Buckthorn poses the biggest threat to forest restoration in the first couple of years after mature trees are removed. Establishing cover of grasses or other native species needs to happen as quickly as possible to prevent buckthorn from exploiting this critical period.

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The nature-based approach can make our natural areas more resistant to invasion in a way that means less time and money combating those invaders, fewer herbicides put into our environment, and creating healthier ecosystems overall. Seed native species in the early spring following fall or winter buckthorn removal and treat resprouting buckthorn the following summer.

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