



Maintaining Roadside Plant Diversity

Guiding Principles for Integrated Roadside Management

Roadsides can be important corridors for plant diversity and wildlife species, including declining pollinator species. However, they can also contain invasive plant species that threaten biodiversity. This fact sheet was developed to provide guidance on how to manage problematic invasive plant species and noxious weeds, such as wild parsnip and introduced thistles, while also maintaining plant diversity. Guiding principles are listed below as well as links to additional information.

Guiding Principles

1. Collaborate with surrounding landowners and [weed management organizations](#) on weed control efforts. Map [weed patches](#) and high quality habitats to inform management planning.
2. Develop a multi-year [management plan](#) for controlling priority weeds.
3. Prevent weed seed development by managing weeds at the [appropriate life cycle stage and season](#).
4. Use spot mowing for target species when feasible (focusing when starting to flower).
5. Use manual or [biological](#) control for target species when feasible.
6. Use spot spraying over broadcast spraying to the extent possible.
7. For biennials: use a pre-emergent spring [herbicide](#) application or foliar application on seedlings, and fall foliar applications on rosettes. For perennials: use foliar applications at appropriate strength herbicide and timing for effective control. Also use fire as competition; time the use of fire to favor native plants.
8. Prevent moving seed by following practices such as [cleaning mowing and construction equipment](#) when leaving infested areas.
9. Monitor and evaluate treatments and adapt as needed, repeat treatments each year when possible.



Black-eyed Susan and wild bergamot growing along a Minnesota roadway

Key Resources

The following links provide information about specific management practices as well as control methods for specific plant species.

- [Minnesota noxious weeds \(PDF\)](#) (Includes Plant Images)
- [Prescribed fire](#)
- [Integrated vegetation management](#)
- [Wild Parsnip Roadside Management](#)
- [Prioritizing Invasive Plant Control](#)
- [Roadside Best Management Practices that Benefit Pollinators: Handbook for Supporting Pollinators through Roadside Maintenance and Landscape Design](#)
- [Pollinator Conservation](#) on Roadsides
- Native Thistle [Identification](#) and [Conservation](#)