



HOW TO GET ON THE LIST

Listing and delisting exotic plants as noxious

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Exotic, invasive weeds, such as spotted knapweed, pose a serious ecological and environmental threat to the natural resources of the western United States. These weeds displace native plant communities (including endangered species), alter the functioning of the ecosystem, reduce forage for livestock and wildlife, and lower diversity. In some cases, noxious weeds increase soil surface runoff and sedimentation into streams. As a response, many states have enacted laws to protect their natural resources from invasion by exotic weeds. The Montana County Noxious Weed Law was established in 1948 to protect Montana from destructive weeds. This act, amended in 1991, has established a set of criteria for the control and management of noxious weeds in Montana. Noxious weeds are defined by this act as being any exotic plant species which may render land unfit for agriculture, forestry, livestock, wildlife, or other beneficial uses, or that may harm native plant communities. Plants can be designated as statewide noxious weeds by rule of the Montana Department of Agriculture (MDA). It is imperative that federal, state, and county agencies develop processes and criteria for deeming exotic plants as "noxious". Many states and counties are struggling to develop efficient and expedient processes and criteria.

The purpose of this paper is to present the process and criteria for listing and delisting exotic plants as noxious weeds in Montana. Perhaps Montana's process and criteria for listing and delisting exotic plants can provide a guideline for others attempting to identify and designate weeds as "noxious."

The Process

In Montana, there are three primary methods for initiating the listing or delisting of exotic plants as noxious. The Montana Department of Agriculture can initiate the process based on their internal information; any individual, group, or association can petition the MDA; and an orga-

nized committee with the responsibility to identify potential noxious plants can initiate the process (Fig.1). The process is initiated by written request to the MDA.

Some situations may call for more immediate action. A proposed emergency declaration can also be requested for rapid processing. A temporary emergency declaration can

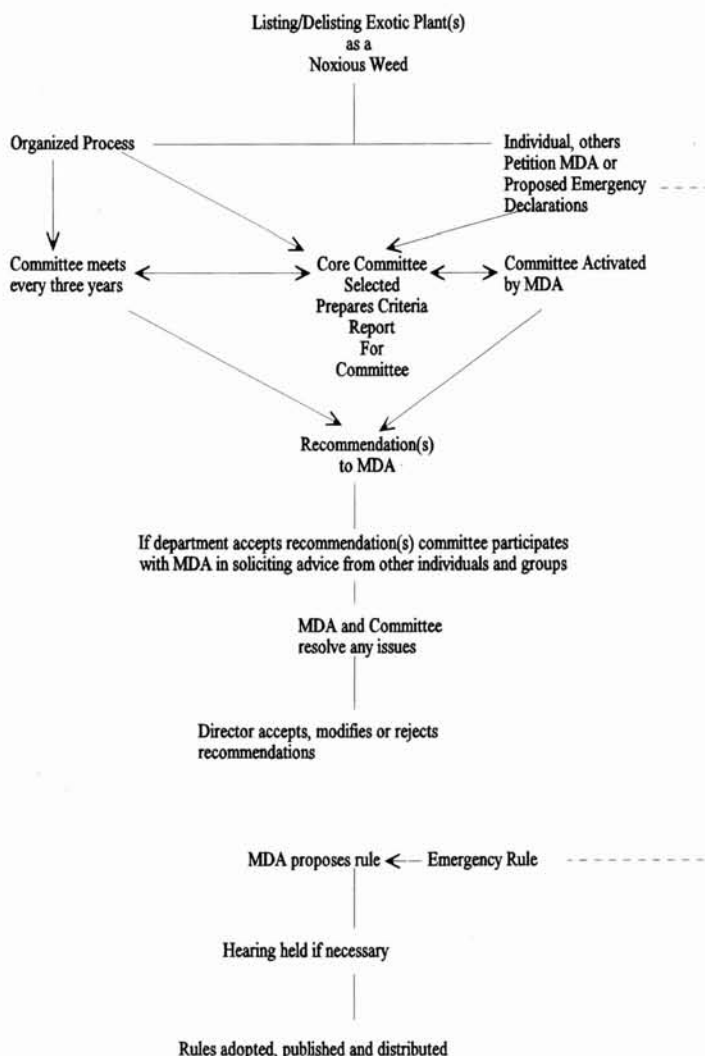


Fig. 1. The process for listing and delisting exotic plants as noxious weeds in Montana.

be made by MDA. An emergency declaration may be important where a new weed infestation is serious and is in a nearby state. Squarrose knapweed is a serious problem in many states. Discovering an initial infestation in adjacent states would justify an emergency declaration as a noxious weed. Once the MDA receives a petition, two committees are created and activated. The first, larger committee comprises representatives from weed districts, the weed control association, various

(5–7) agricultural groups, state and federal agencies, university weed specialists, environmental groups, a representative from MDA, and others who might be impacted by declaring an exotic weed as noxious. Weed specialists comprise the second committee. Their job is to evaluate and assess a weed's potential as noxious based upon predetermined criteria (Figure 2).

Once this committee has prepared a specific report for each proposed noxious weed, the information is evaluat-

Name of Plant: Saltcedar (*Tamarix ramosissima*, *T. chinensis*, or *T. gallica*)

Date: 11–16–97

- Is the plant pre-adapted to Montana's climate
 80 Yes (80 pts) Probably no (–40 pts)
 Probably yes (40 pts) No (–80 pts)
- Based on MAPS, what is the percentage of Montana's area that is expected to have suitable climate for this weed (1 pt for each percentage)
 (Not able to attain this information)
- How many neighboring States/Provinces list the weed as noxious?
 Oregon (6 pts) North Dakota (10 pts)
 8 Washington (8) Southern Alberta (10 pts)
 Idaho (10 pts) Southern Saskatchewan (10 pts)
 Wyoming (10 pts) British Columbia (10 pts)
 South Dakota (10 pts) None

4. How many acres does the weed infest in each State/Province?

State/Province	Acres	Points
Oregon	0–100	1
<input checked="" type="checkbox"/> Washington	100–1000	2
<input checked="" type="checkbox"/> 10 Idaho	1000–5000	4
<input type="checkbox"/> Wyoming	5000–10,000	6
<input type="checkbox"/> South Dakota	10,000–50,000	8
<input type="checkbox"/> North Dakota	50,000–over	10
<input type="checkbox"/> Southern Alberta		
<input type="checkbox"/> Southern Saskatchewan		
<input type="checkbox"/> British Columbia		

5. How many acres does the weed infest in counties/portion of provinces immediately adjacent to Montana?

Not available acres

Acres	Points
0–100	5
100–1000	10
1000–5000	20
5000–10,000	40
10,000–50,000	60
50,000–over	80

6. How many counties in Montana have listed the weed as noxious (2 pts for each listed county)?

15 Number of counties 30 points
 (Rosebud planning to put on county list in spring 1998)

7. How many total acres does the weed infest in Montana?

10 points

Acres	Points
0–100	5
100–1000	10
1000–5000	20
5000–10000	40
10,000–50,000	60
50,000–over	80

8. Which environmental types has the weed invaded?

- (10 pts for each environmental type)
- | | |
|--|--|
| <input type="checkbox"/> Forest/grassland (>20" ppt) | <input checked="" type="checkbox"/> 10 Riparian/wetland |
| <input type="checkbox"/> Forest/grassland (<20" ppt) | <input type="checkbox"/> Improved pasture |
| <input type="checkbox"/> Sagebrush/grassland (western Montana) | <input type="checkbox"/> Cropland |
| <input type="checkbox"/> Sagebrush/grassland (eastern Montana) | <input type="checkbox"/> Roadsides/right-of-ways right-of-ways |
| <input type="checkbox"/> Grassland (west) | |
| <input type="checkbox"/> Grassland (east) | <input type="checkbox"/> Aquatic |

9. Which of the potential negative impacts are associated with this weed?

- | |
|--|
| <input checked="" type="checkbox"/> 10 Loss of forage production (10) |
| <input checked="" type="checkbox"/> 10 Loss of native plants (10) |
| <input checked="" type="checkbox"/> 10 Loss of biodiversity (10) |
| <input checked="" type="checkbox"/> 10 Loss of wildlife habitat (10) |
| <input checked="" type="checkbox"/> 10 Increase soil erosion (10) |
| <input checked="" type="checkbox"/> 10 Reduced recreational value (10) |
| <input type="checkbox"/> Poisonous to any animal (10) |
| <input type="checkbox"/> Causes human health concern (10) |
| <input checked="" type="checkbox"/> 10 Loss of cropland (10) |
| <input type="checkbox"/> None (0) |

(Note: Saltcedar increases sediment deposition)

10. Which of the potential impacts are associated with this weed?

- | |
|---|
| <input checked="" type="checkbox"/> –5 Pollen for honey bees (–5) |
| <input type="checkbox"/> Pollen food item source (–10) |
| <input type="checkbox"/> Potential medical uses (–10) |
| <input type="checkbox"/> Grazing value (–10) |
| <input type="checkbox"/> Other (–10) |

11. How often has the weed been included in a national or international weed list? (5 pts for each listing)

15 Points

12. What is the current rate of expansion of the weed?

- | |
|--|
| <input type="checkbox"/> Decline (–5) |
| <input type="checkbox"/> Stable (10) |
| <input type="checkbox"/> Slow/moderate (20) |
| <input checked="" type="checkbox"/> 40 Fast (40) |
| <input type="checkbox"/> Exponential (60) |

13. Which of the following characterizes the plant?

- | |
|--|
| <input checked="" type="checkbox"/> 10 Very high seed production (10) |
| <input type="checkbox"/> Long-lived seed bank (10) (over 3 years) |
| <input checked="" type="checkbox"/> 10 Simultaneous asexual & sexual reproduction (10) |
| <input checked="" type="checkbox"/> 10 Adapted to disturbance (10) |
| <input checked="" type="checkbox"/> 10 Rapid growth rate (10) |
| <input type="checkbox"/> Early and continuous growth throughout the season (10) |

TOTAL POINTS 290

Please attach biological information on this plant.

Fig. 2. The criteria for listing and delisting exotic plants as noxious weeds in Montana.

ed by the larger committee. The larger committee finalizes the report by providing practical information about the impacts of declaring the weed as noxious. Once all the information is compiled, the larger committee provides a recommendation to MDA. If the recommendation is accepted, the committee participates with MDA in soliciting advice from other individuals and groups and in resolving their concerns. The director then accepts, modifies, or rejects the committee recommendations, and rules are proposed. If necessary, a public hearing will be held. Rules are adopted, published, and distributed.

The Criteria

Listing or delisting an exotic plant as noxious is based on three criteria. The first criteria is a relative ranking based on suitability of climate, current distribution, acreage of infestation, number of counties present, potential habitat types susceptible to invasion, potential negative and/or positive impacts, number of national and international listings, and a few biological characteristics. Points are allocated to responses of 13 questions. Figure 2 shows the criteria questions, points allocated for each response and an example using saltcedar as the plant petitioned for consideration as noxious. There is no magic number of points after which the weed is considered noxious. The numerical score is simply used to provide some insight into the overall potential invasion and impact of the plant.

The second criteria summarizes the biological characteristics of the plant. This is a brief description of special characteristics important to understanding the potential invasion and impacts of the plant not addressed by the ranking system. Any special considerations should be stressed in the biological summary. Some special situations, such as invades riparian areas only, may lead to low numerical scoring because of the low number of acres potentially infested. Low scoring may underestimate the invasiveness and ecological and economic impacts of the weed.

The final criteria for listing or delisting an exotic plant as a noxious weed is how the rule impacts various agencies, companies, groups, or individuals in the state. For example, listing a common garden ornamental, such as purple loosestrife or yellow toadflax, as a noxious weed may significantly impact nursery sales. In another case, listing a common weed in crop seed as noxious may alter the legal status and salability of the crop seeds.

Conclusion

As weeds continue to invade western rangeland, it is critical that processes and criteria are developed to determine those weeds that pose a serious threat to the ecology and economy. These processes must include assessment of the invasiveness and impacts of exotic plants based on biological characteristics and past history of invasion. Sociological impacts of the weed and its declaration as noxious must be considered as well. This requires a social process and the development of criteria based on the plant's biology. We have attempted to provide an example process and criteria for listing or delisting a weed as noxious.

The author wishes to recognize the Montana Department of Agriculture for providing leadership in developing the process and criteria for listing and delisting exotic plants as noxious weeds in Montana. In addition, special appreciation is given to the process and criteria committee members. A special thank you is given to Gary Gingery, Montana Department of Agriculture.

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