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## METHODS OF WEED CONTROL

The following weed control methods are approved weed management techniques for lands within the Mineral County Weed District. Using only one method of weed control is never an effective management option. The Weed Board recommends an integrated approach to weed management, which utilizes two or more of the following techniques.

- 1. **PREVENTION:** *Preventing noxious weeds invading and establishing on your land.* This is the most effective, economical and desirable weed control method; it also requires the most conscious effort on the part of the landowner. Techniques: Identify and map weed infestations, keep long-term records, recognize and eliminate new weeds before they become established, use certified "weed seed free" grass seed and hay or straw, use clean gravel, soil and fill dirt; reseed disturbed areas as soon as possible, encourage neighbors to become "weed aware", form a cooperative weed district.
- 2. **CULTURAL:** Utilizing crop/plant competition and abilities to disrupt noxious weed life cycles/deficiencies. This method requires knowledge of weed ecology to select crops/plants according to their ability to compete with problem weeds. Techniques: Crop rotation, planting competitive crops instead of fallowing, revegetation with competitive grasses and native legumes, improve pasture management.
- 3. **MECHANICAL:** *Physical destruction of weeds.* This method can be very labor intensive but practical on small infestations of weeds that are "easy" to remove and destroy. However, some infestations can be made worse from mechanical or physical disturbances; know the weed before you act. Techniques: Hand pulling, cultivation, mowing, burning, hoeing. \*\*When using any of these techniques, timing may be very critical to the success of your treatment. For example, mowing knapweed in late August does not affect the plant and may spread its seeds even further; however, it does prepare the site for an herbicide treatment soon afterwards. Please seek assistance/information from the Weed District or Extension Service when using this method.
- 4. **BIOLOGICAL:** The introduction and management of selected natural enemies of a weed. This method includes insects, fungi and diseases carefully screened by the USDA, which attack the target weed without affecting desirable vegetation. It also includes grazing by livestock, primarily sheep or goats, on certain weeds at specific times during their growth cycle. This method is environmentally sound (100% natural) but is also labor intensive and may be difficult to establish depending upon the weed species, location and availability. Insects for weed control may be purchased or available from the Weed District in exchange for volunteer time (i.e. collecting insects in the field) or available to establish an insectary for future collection.
- 5. **CHEMICAL:** The use of herbicides to control noxious weeds. Herbicides are the most commonly used method of weed control. If used properly, they are very effective and, when compared to other methods of weed control, quite economical, despite their seemingly high cost. Weather, site conditions, weed species present and your goals for weed management will all determine what types of herbicides may or may not be available for use. Some herbicides may require hiring a Commercial Pesticide Applicator but most, with training and proper attention to the label, can be applied by individual landowners.

One method alone will never achieve good weed management. Insects do not eat every last weed, hand pulling becomes tedious, site conditions may preclude herbicides, revegetation requires careful selection and maintenance and prevention requires involvement. Combining two or more methods in an "integrated" manner greatly increases your chances of managing these invasive weeds and improving the economic and ecological resources of Mineral County and Montana.