Best Management Practices to Prevent Noxious Weeds During Forest, Range and Residential Projects
Colorado Department of Agriculture
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The following are best management practices for preventing noxious weed germination, establishment and spread for projects conducted in the field. These practices are ideal for fire hazard mitigation work around homes and structures, new housing construction or remodel, installation or maintenance of infrastructure such as roads, ditches, and utilities, disaster recovery work and agricultural production operations. These actions may cost time at the beginning of the project, but they will save lots of money and headaches after the project is done and the contractors or workers are long gone.

Before starting a project:

1. Do a complete inventory noxious weed occurrences, using a GPS whenever possible; note what weed species are present, where they are located, how big the infestation is and how developed the plant is (green up, bolting, flowering, going to seed, past seed, decaying).
2. Share the weed inventory data with the local County Weed Manager for entry in the State's online noxious weed database, or provide List A data directly to Patty York and List B noxious weed data directly to Lara Duran.
3. Designate an area on-site where equipment, tools and clothing can be cleaned and mark these on the ground.
4. Designate an area on-site where equipment, vehicles, tools etc. can be staged when not in use and mark these on the ground; whenever possible pick locations that are already compacted (e.g. road turnouts, driveways, etc.).
5. Identify areas that are weed-free that may be ingress/egress paths and mark these on the ground.
6. Create a map with areas to avoid; also include locations of staging areas, stock piling areas, and areas where travel is permitted.
7. Share the maps with contractors and project employees and make sure all know where the avoidance, staging, stock piling and travel areas are located on the ground.
8. Treat known weed infestations in a manner that ensures seeds will not mature and germinate on the ground.
9. Treat all areas where equipment, materials, tools, vehicles, travel corridors and operations are expected including ingress/egress paths from the roadside to the project site.

At the start of the project

1. Clean all equipment prior to arriving or entering a new site that is located off of a roadway; cleaning means removing all soil, mud, plant parts, seeds, vegetative matter, or other debris that could contain or hold seeds.
2. Workers need to inspect, remove, and properly dispose of weed seed and plant parts found on their clothing and tool; this means removing all soil, mud, plant parts, seeds, vegetative matter, or other debris that could contain or hold seeds.
3. Flowers and seeds need to be collected, bagged and thrown into the trash or incinerated; composting does not produce enough heat to kill most noxious weed seeds and flowers left on the ground will often mature and disperse despite the dead stalk.
4. Plant leaves, stems and roots should be collected, bagged and thrown whenever possible; some noxious weeds reproduce from stems, roots or leaf fragments alone.
5. Inspect equipment and tools that is arriving on site to ensure contractors, drivers and workers washed the equipment and tools properly.

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During the project:

1. Implement in a manner that minimizes soil disturbance.
2. Avoid travelling/driving/operating through or using equipment in weed infested areas.
3. Avoid piling debris and wood to be burned on top of noxious weeds; many weeds germinate after fire, or actively increase the frequency of fire: e.g. cheatgrass (*Bromus tectorum*).
4. Avoid piling or staging equipment, tools and materials on top of noxious weeds.
5. Avoid scraping or dragging equipment, tools and materials or debris on the surface of the ground.
6. When possible, chip and masticate woody debris on site instead of skidding/dragging/yarding it over ground; feller-buncher that pick up individual trees and load them into a landing are also preferred over skidding/dragging/yarding.
7. When possible, leave native plants, rocks, dead and down wood and other ground cover intact; many noxious weeds prefer to germinate in bare mineral soil and disturbed ground.
8. Stock pile materials and debris on ground that is already compacted whenever possible (e.g. road turnouts, driveways, etc.).

At the end of the project:

1. Clean all equipment, before leaving the project site, if operating in areas infested with weeds; cleaning means removing all soil, mud, plant parts, seeds, vegetative matter, or other debris that could contain or hold seeds.
2. Seeds and plant parts need to be collected and bagged or incinerated whenever possible.

After the project:

1. Do a complete inventory and GPS the project area for noxious weed occurrences for annually for three consecutive years after the project is completed.
2. Treat noxious weeds that are detected during post-project inventories.
3. Revegetate disturbed soil whenever possible with locally adapted native plants that are characteristic of that environment; make sure that the seed mix does not contain noxious weeds.

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Photo Credit: US Forest Service

For detailed information about noxious weed management in Colorado, be sure to visit our website at:
https://www.colorado.gov/pacific/agconservation/noxiousweeds