Fall can be a good time to fight perennial weeds. Perennial weeds, defined by their life cycle, live two or more years. Though they produce seed, their main means of reproduction tends to be vegetative. Perennial weeds produce new top growth from buds located on the rootstalk, or from rhizomes, bulbs, or other underground structures. Using this method, a single perennial weed can cover large areas of soil in a short period. The vigorous rhizomes of Canada thistle (*Cirsium arvense*), for example, can spread 15 feet laterally in a single season and produce dozens of new shoots. To effectively control these weeds, the root must be killed.

To get the best control of perennial weeds with herbicides, the weeds have to be actively growing. This means they cannot be water stressed. In Idaho forests and rangelands, the soil gets pretty dry by the time fall rolls around. Chemical control works best when the soil is moist and the plants are actively growing. In irrigated areas (lawns, pastures, farms) one of the most effective things a landowner can do to effectively control perennial weeds is to water/irrigate the areas in order to the weeds growing actively before applying herbicides.

For herbicides to be effective, the chemical needs to translocate down into the root system. Cooler temperatures are a signal to perennials to send most of the food produced by photosynthesis down into the root system. Creeping roots or rhizomes found on many perennial weeds such as Canada thistle, field bindweed, and quackgrass, serve as food storage organs. It is the food storage of these weeds that we are trying to kill. It is easy to kill above-ground portions of these weeds, but the difference between success and failure in perennial weed control is killing the plants underground parts.

Water stressed plants take up less chemical, which means less chemical is translocated down into the root system. Poor weed control will become obvious next spring or summer. The herbicide you choose must fit the situation or the trees or crops that might be planted next year. Roundup (Glyphosate) and 2,4-D offer the least crop rotation restrictions while Tordon (Picloram) has one of the longest residual effects.

Once you have gone to the effort of making a fall herbicide application, be sure to follow up next year. Do not always expect to permanently control any perennial weed with a single herbicide application.

Use a fall application as the starting point of your perennial weed management program. Plan to use additional weed control efforts such as herbicide applications the following year. And closely monitor those perennial weed patches. Herbicides are not the only option in a weed management plan. They can be used in combination with tillage, burning, hand pulling, etc. Usually, what works best is a combination of practices. Lastly, always read and follow all label directions when using any herbicide or pesticide.

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