Author File

Deer Repellent: Hints and Precautions

Biologists at Olympia's Forest Animal Damage Research Station have found a way of improving repellency of Big Game Repellent-Powder (BGR-P). They also have a word of caution to foresters trying "Ro-Pel" as a deer repellent on Douglas-fir.

For background, winter and summer browsing damage to Douglas-fir by black-tailed deer is a widespread problem in coastal Washington and Oregon. Summer browsing is more common in many areas; it starts shortly after spring bud burst and continues into late summer.

A variety of repellents are available to reduce browsing damage by deer. BGR-P -- a 36% inedible egg solids concentrate in powder form -- has been used for several years and has generally proven to be more effective than "Deer-Away" (liquid BGR) or other putrescent materials. "Ro-Pel", on the other hand, is a newcomer to the Pacific Northwest with relatively little quantified data on its efficacy against black-tailed deer; it is an extremely bitter, liquid repellent. Regardless of the material, the recommended use during the growing season is to apply deer repellents to new growth immediately after bud burst.

A field trial in western Washington in 1986, however, showed that black-tailed deer could be conditioned to leave Douglas-fir new growth alone when BGR-P was applied before bud burst. The key was to first tie a 12-inch strip of plastic flagging to seedlings just below the terminal bud and then dust wetted seedlings (and flags) with BGR-P as directed on the label. Results for the entire May through August growing season damage period were:

- Seedlings with flagging and BGR-P .....0.0% browsing damage
- Seedlings with BGR-P alone .....13.5% browsing damage
- Untreated control seedlings .....66.7% browsing damage

Results of a recently completed 1987 pen test on dormant Douglas-fir seedlings were also favorable for BGR-P but discouraging for "Ro-Pel". In this test, BGR-P was dusted on wet seedlings before planting and "Ro-Pel" applied to dry seedlings, allowed to dry and then reapplied before planting. Terminals browsed by black-tailed deer at the end of the 28-day test were: BGR-P seedlings, 0%; "Ro-Pel" seedlings, 88%; untreated controls, 82%. In other words, "Ro-Pel" was as good as no treatment at all and BGR-P gave complete protection. Furthermore, all "Ro-Pel" treated seedlings showed some burning of dormant needles suggesting that the compound could be quite phytotoxic if applied to new growth.

The bottom line is (1) tie a yellow (or blue or red) ribbon around the 01' Douglas-fir tree before applying BGR-P to maximize repellency and (2) watch out for phytotoxically if you are trying "Ro-Pel" on new growth Douglas-fir.

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