

ADVANCED FOOD PLOTTING

State-of-the-art tips and techniques for high-level land managers

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Slay is an excellent choice for winter annual broadleaf weeds. Just make sure to follow best practices when using it.

SLAY FOR COOL-SEASON WEED CONTROL

The 1980s can be remembered for many things. Ronald Reagan was in office, hair and clothing styles were terrible, and for weed scientists, new chemistries of herbicides were discovered.

Until that time, herbicide applications were given in large quantities per acre, such as pounds per acre, or gallons or quarts per acre. With the discovery of two classes of herbicides, imidazolines and sulfonyleureas, herbicides could be applied in fluid ounces per acre and ounces per acre. That meant cheaper packaging, less environmental load and much less water. It also brought many new herbicides that controlled weeds in a different way. Previously, most herbicides only controlled broadleaf weeds and small-seeded grasses. After the discovery of imidazolines and sulfonyleureas in the 1980s, the weed-control spectrum expanded to a much larger range of broadleaf weeds, large and small-seeded grasses, and nutsedges.

Imidazolines work very slowly in a plant. They inhibit the biosynthesis of branched-chain amino acids (valine, isoleucine and leucine). They specifically inhibit the acetolactate synthase, or ALS, enzyme. That's part of why these herbicides are incredibly safe. Humans don't have the ALS enzyme associated



■ Swinecress is a brassica weed for which Slay provides post-emergence control.

with the production of branched-chain amino acids.

One of the imidazolines was imazethapyr, which deer hunters know as Slay, a low-use herbicide that provides pre-emergence and post-emergence activity for some grass weeds and broadleaf weeds. Most hunters associate Slay with spring applications, but it offers excellent activity on several problematic winter annual broadleaf weeds, many of

which are in the brassica family, which needs further explanation.

The brassica family is composed not only of weeds but also many desirable crops, including food plots. Plants in the brassica family are cool-season plants, which means they germinate in autumn and flower and produce seed in late-winter and early spring. In Northern latitudes, plants in the brassica family might be present in early summer. Some criti-



■ This image shows yellow rocket. The picture at right shows wild mustard.
 Courtesy of Bruce Ackley, The Ohio State University, Bugwood.org



IMPERIAL WHITETAIL

SLAY

- Selective broadleaf herbicide.
- 4 ounces treats 1 acre; 1 pint treats 4 acres.
- Slay is field-tested and has proven effective for controlling broadleaf weeds in clover or alfalfa fields. Slay can be easily applied with a four-wheeler or tractor sprayer. Using the right herbicide can eliminate the need for replanting as often and ensure that your food plots have maximum longevity.



Courtesy of Joseph M. DiTomasso, University of California - Davis, Bugwood.org

cal characteristics of plants in this family include deeply lobed leaves and yellow or white flowers that have four petals.

COOL-SEASON ANNUAL WEEDS

The brassicas are a large family of weeds. When applied at 4 fluid ounces per acre, Slay provides excellent control of brassicas, if applied when weeds are 3 inches or less. Cool-season annual weeds in the brassica family include yellow rocket, shepherd's purse, swinecress, tansy mustard, and wild, tumble and black mustards. Common chickweed is a winter annual that emerges in fall and early winter and dies out in spring. Although Slay is labeled for use only on alfalfa and clover, food plot mixtures containing brassicas — such as Beets and Greens, Bow Stand, Pure Attraction and Ravish Radish — have plant-back restrictions to plots previously treated with Slay. Slay should not be applied to these crops: turnips, rape/canola, kale,

cabbage, broccoli, radish, collards or cauliflower. Proper planning of rotational guidelines with various food plot seeds must be considered if you're planning to apply Slay on clover and then plant another product.

OPTIMUM APPLICATION TIMINGS

We often receive questions regarding winter annuals when they're flowering. That's much too late to spray a herbicide, because winter annuals must be treated when they are very small. It should be applied when the weeds are less than 3 inches tall. Take notes of the areas where you see winter annuals. If you have a GPS system that lets you mark the areas, that will come in handy for the next autumn. Applications should be targeted in mid-September to early October. However, scouting your food plots is essential because weed emergence differs depending on regions.

SLAY APPLICATIONS

The critical threshold is for daily temperatures to be at least 50 degrees for 10 hours the day of application. Additionally, that temperature threshold needs to also be reached at least 48 hours before the application to ensure that weeds are actively growing when the herbicide is sprayed. A crop oil such as Surefire Crop Oil Plus must be added to Slay applications.

Slay is an excellent choice for winter annual broadleaf weeds. When you ensure the optimal application timing and temperature threshold, Slay can provide weed control for established food plots to make them an ideal hunting paradise.

