

WEED CONTROL IN ALFALFA

By

J. D. Green
Extension Specialist in Weed Control
University of Kentucky
College of Agriculture

Since weeds which infest forages are harvested along with the alfalfa crop, total dry matter production does not necessarily increase with good weed control. However, controlling weeds which invade alfalfa improve the forage quality. In addition, maintaining good weed control may also prolong the productive life of the alfalfa stand.

If managed properly, established alfalfa stands can effectively prevent many annual and perennial weeds from becoming a major problem. Maintaining proper soil fertility, soil pH, and good soil drainage are some practices which help keep the alfalfa competitive against invading weeds. Other factors which put alfalfa under stress, such as poor soil moisture, damage from insects and disease, and cold temperatures can also cause alfalfa to become less competitive. For weed control practices to be successful, voids left in the field after the weeds have been controlled must be filled by a competitive alfalfa stand.

Establishment of New Seedings Preplant Incorporated

Although only a few herbicides are available for use before seeding, adequate weed control is one of the essential elements in the establishment of a good alfalfa stand. Preplant incorporated applications of BALAN, EPTAM, or GENEP are available for control of many annual weeds in spring seeded alfalfa. These herbicides are not very effective on perennial weed species.

Weed control with BALAN, EPTAM, or GENEP is dependent upon thorough and timely incorporation following application. These herbicides are to be used only in the seeding of pure stands of alfalfa, thus, they cannot be used in the establishment of legume-grass mixtures. If conditions for germination and growth of alfalfa are poor, temporary stunting of the legumes may occur, particularly under cool, wet conditions.

Postemergence Applications on New Seedings and Established Stands

After alfalfa seeding, maintaining effective weed control is also important. POAST, as a postemergence herbicide, selectively controls annual and perennial grasses, but does not provide control of broadleaf

weeds or nutsedges. Since alfalfa has excellent tolerance to POAST, applications can be made to newly established and older stands of alfalfa.

The recommended rate of POAST and stage of grasses at time of application varies with the grass species present. Annual grasses which can be controlled include crabgrass, barnyardgrass, foxtails, and fall panicum. For perennial grasses, such as johnsongrass, more than one application may be required. POAST should not be applied to weedy grasses or alfalfa which is under stress conditions, such as lack of moisture or cold temperatures. Best results are obtained when grasses are actively growing. POAST must be applied with a crop oil concentrate. Alfalfa cannot be harvested for hay within 20 days after POAST application; or should not be used for grazing or harvested for green-chop forage within 7 days after application.

Many annual broadleaf weeds can be controlled with BUTOXONE or BUTYRAC 200 (2,4-DB), but these herbicides do not provide adequate control of chickweed. Treatments can be made in the fall or spring. However, best control of weeds which over-winter in the rosette stage is obtained when applications are made in late fall or early winter while weeds are still small and actively growing. Rates of application vary according to the weed species and weed size at time of application. Established alfalfa treated with BUTOXONE or BUTYRAC 200 should not be grazed or used for feed within 30 days after treatment. In new alfalfa seedings, treated forage should not be grazed or used for feed within 60 days after treatment.

FURLOE 4EC or KERB 50W can also be applied to both newly seeded and established alfalfa stands. For best results, these two herbicides should be applied preemergence or early postemergence to the weeds. FURLOE controls many broadleaf weeds such as chickweed, cress, purslane, shepherdspurse, and smartweed. Treated alfalfa should not be grazed until 40 days after treatment with FURLOE. KERB 50W provides control of such weeds as chickweed, mustards, orchardgrass, red sorrel, and shepherdspurse. Alfalfa treated with KERB cannot be grazed or harvested for forage until 120 days after treatment.

Established Pure Stands Dormant and Nondormant

VELPAR L or VELPAR 90WSP can be used after alfalfa has been established at least for one year. Make a single application in the fall or winter after plants become dormant or before new growth begins in the spring. This herbicide can be used for control of chickweed, shepherdspurse, yellow rocket, and a few annual grasses. Best results are obtained when soil moisture is good and when weeds have not germinated or are very small (less than 2 inches) at time of treatment. VELPAR can be applied as a between harvest treatment following hay removal, but before alfalfa regrowth 2 inches in height. Treated forage should not be grazed or fed to livestock within 30 days following application.

Established Pure Stands Dormant Only

In dormant stands, SENCOR or LEXONE may be applied in late fall or before growth begins in the spring. Weeds controlled include many annual and perennial weeds such as barnyardgrass, chickweed, dandelion, henbit, pepperweed, shepherdspurse, and yellow rocket. Rates of application are based on weeds to be controlled. When alfalfa is stressed, such as from lack of moisture, disease, low fertility, or insects, the likelihood of crop injury may increase. Alfalfa should not be grazed or harvested within 28 days after treatment.

GRAMOXONE SUPER (paraquat) may be applied on dormant alfalfa if it has been established for one year. Weeds and grasses to be controlled should be succulent and growing at time of application. GRAMOXONE SUPER should not be applied to alfalfa in which fall regrowth is more than 6 inches tall following the last fall cutting. Before grazing or harvesting, wait for at least 60 days after treatment.

Mixed Stands

Herbicide choices are more limited on alfalfa pastures mixed with grasses. FURLOE may be applied to established alfalfa stands mixed with orchardgrass, tall fescue, or smooth brome grass. For chickweed control with FURLOE, treatment should be made after it has emerged, but before reaching 3 inches in height. When chickweed is over 3 inches high or if FURLOE is applied after February 1 a higher rate should be used. SENCOR or LEXONE may also be used on mixed stands with grasses. However, these two herbicides may cause a partial reduction in the forage grass stand at the higher rates recommended.

It is important to read and follow herbicide labels for specific directions on rates, time of application, and other restrictions before using any of these herbicides.