

Chemical Weed Control Recommendations for Legumes and Pastures

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Federal regulations on herbicide use change frequently; this means you need to keep informed on the status of label clearances. Labels include information on application restrictions, but they may not always be up-to-date on recently approved new uses or removal of previous limitations.

We have tried to make recommendations in this guide conform to laws and regulations. Research has shown these recommendations to be sound from the performance standpoint. However, future developments in research and label clearance probably will require that some modifications be made.

It is illegal to use a herbicide inconsistent with label instructions. A herbicide cannot be used on a given crop unless specifically stated on the label.

Weed infestations in pastures can usually be avoided by maintaining a vigorous, thick stand of forage plants. Most pastures become weedy because of overgrazing and/or lack of fertilizer nutrients. Most pasture and hay fields have a vast reservoir of weed seeds present in the soil. When the forage stand becomes thin and sparse, weed seeds germinate and weeds become established.

No available herbicide can maintain weed-free forage fields unless proper grazing and fertility management is used with the spraying program.

Before applying a herbicide, take soil tests to determine lime and fertilizer needs. Lime and fertilizer should be applied before spraying. After the spraying operation, some form of rotation grazing system should be used so that grass plants can develop stronger root systems. This will eventually result in more vigorous, thicker stands of grass.

Legumes usually have to be re-established after the pasture has been sprayed. The steps for doing this are outlined in UMC Guide 4651, "Renovating Grass Sods with Legumes."

weeds will also be controlled. However, Balan does not effectively control ragweed.

Balan should be incorporated in the soil before seeding by shallow disking or by some other method that will mix the herbicide in the upper part of the soil profile. No injury to legumes has been noted.

Do not use Balan for weed control in alfalfa with a nurse crop such as oats or if an alfalfa-grass mixture is to be seeded.

Eptam: This herbicide may be used to establish small-seeded legumes. Good results have been obtained with pre-planting treatments of 1 to 3 pounds per acre. The treatment is made by preparing the seedbed and then spraying the materials on the soil surface. The herbicide should then be immediately incorporated in the soil to a depth of about two inches.

Both weed grasses and broadleaved weeds are controlled with this material, although it is more effective on grasses. With rapid growing legumes such as alfalfa, satisfactory weed control may be obtained throughout the season.

Slow-growing birdsfoot trefoil may become weedy in midsummer after a spring treatment. Frequently smartweed is not controlled well. Some injury to Kenland red clover has been observed; thus, we are not certain that EPTC may be used safely on all varieties of red clover. No feeding or grazing restrictions are involved when used as above.

Do not use Eptam for weed control in alfalfa with a nurse crop such as oats or if an alfalfa-grass mixture is to be seeded.

Tolban: Apply to surface and incorporate in same operation before seeding alfalfa. Use 1 to 2 pints per acre depending upon soil type. Tolban is an excellent annual grass herbicide and provides some control of pigweed and lamb's-quarters. Do not use Tolban for weed control in alfalfa with a nurse crop such as oats or with an alfalfa-grass mixture.

LEGUMES

Pre-emergents

Balan: This material can be used for the establishment of alfalfa, birdsfoot trefoil, red clover, alsike clover, and ladino. Rates ranging from 1 to 1½ pounds per acre will control annual grasses throughout the season. Many broadleaved

Post-emergence

2, 4-DB (amines and esters): These have been cleared for use on alfalfa, red clover, ladino clover, alsike clover, and birdsfoot trefoil with the following limitations:

- On seedling legumes, apply when weeds are less than three inches tall.
- On established legumes, apply before legumes flower.
- On legumes seeded with a nurse crop, apply to seedling legumes when weeds and legumes are less than three inches

GLOSSARY OF CHEMICAL NAMES

TRADE NAME	CHEMICAL NAME	CHEMICAL FORMULA
Balan	benefin	N-butyl-N-ethyl-a, a, a-trifluoro-2, 6-dinitro-p-toluidine
Banvel	dicamba	3, 6-dichloro-0-anisic acid
Dow General	DNBP	4, 6-dinitro-0-secbutylphenol
Sinox General	DNBP	same as Dow General
Eptam	EPTC	ethyl N, N-di-n-propylthiolcarbanilate
Furloe	CIPC	isopropyl M-chlorocarbanilate
Kerb	pronamide	N-(1, 1-dimethylpropynyl)-3, 5-didoro benzamide [3, 5-dichloro (N-1, 1 dimethyl-2 propynyl) benzamide]
Princep and others	simazine	2-chloro-4, 6-bis (ethylamino)-s-triazine
Sencor	metribuzin	4-amino-6-tert-butyl-3-(methylthio-as-triazin)
Sinbar	terbacil	3-tert-butyl-5-chloro-6-methyluracil
Tolban	profluralin	N-(cyclopropylmethyl)-a, a-a-trifluoro-2, 6-dinitro-N-propyl-p-toluidine
2, 4-D	several brands	2, 4-dichlorophenoxyacetic acid
2, 4-DB	several brands	4 (2, 4 dichlorophenoxy) butyric acid

tall and the nurse crop is one to six inches tall.

In cases where 2, 4-DB is used, treated plant parts should not be grazed or fed to livestock within 30 days after application.

Rates of ½ to 1½ pounds of either the amine or ester may be used. The ester is more effective than the amine. One pound of ester is equal to about 1½ pounds of the amine. In many cases, ½ pound of either formulation is effective on most small broad-leaved weeds.

Common ragweed may require a higher rate. Birdsfoot trefoil appears to be somewhat susceptible to injury from 2, 4-DB, so rates over one pound per acre should not be used.

Dow General, Sinox General: From 1 to 1½ pounds per acre may be used to control winter annual weeds such as henbit, chickweed, and yellow rocket in legumes. Apply amine salts of DNBP in late fall when legumes are dormant and weeds are small. A second application may be made in early winter if necessary when legumes are still dormant. It can be used on alfalfa, red clover, ladino clover, and birdsfoot trefoil. Do not graze livestock on treated fields before the first cutting.

Furloe: Apply to established alfalfa at rates of 1 to 2 pounds per acre when the crop is dormant or after first cutting. Furloe is effective on chickweed either before or after the weed emerges. It is less effective on other broadleaved annual weeds. Furloe may injure forage grasses in legume mixes.

Kerb: This herbicide controls chickweed and winter annual grasses in established alfalfa. Apply 1½ pounds per acre as a fall application. Kerb is absorbed through the roots; thus soil moisture from rain or melting snow is essential after an application. Check label for required protective safety measures. Do not graze dormant alfalfa for 25 days after application of Kerb.

Princep: One pound per acre will control chickweed and other winter annuals in dormant alfalfa and birdsfoot trefoil, if applied before or shortly after seed germination. This period would be from early December through January. Late winter application may injure alfalfa.

Princep should not be applied to alfalfa or birdsfoot trefoil that is less than one year old since injury may occur.

Rates above one pound per acre may injure legumes. On light soils, simazine may injure legumes at rates of less than one pound per acre.

Sencor: Sencor should be applied only on established alfalfa. Do not apply during seedling year. Application to established stands should be made when alfalfa plants are dormant—in late fall or early spring. Rates vary from ¾ to 2 pounds per acre, depending upon weed species to be controlled. Do not graze or harvest within 28 days after application.

Sinbar: Treat only alfalfa stands established for one year or longer. Make a single application of ½ to 1½ pounds per acre in the fall after alfalfa has become dormant or in the spring before new growth starts. Do not use on seedling alfalfa or on alfalfa-grass mixtures or other mixed stands. Do not apply to established stands after new growth starts in the spring, and do not apply on snow-covered or frozen ground as crop injury may result.

PASTURES

2, 4-D: One-half pound per acre is effective on many weeds. Where weed infestations are severe, one pound per acre of 2, 4-D amine will increase yield of lespedeza considerably.

Best results are obtained when weeds are small. Rates up to 1 or 2 pounds per acre of the amine or ester form may be used to control perennial weeds such as ironweed, but severe injury to legumes can be expected. Apply when grasses are well established. Do not apply to newly seeded areas or after heading begins. Do not graze dairy animals on treated areas within seven days after application.

Banvel: For weed control in pastures, apply ½ to 1 pint per acre when weeds are making active growth. For aerial application, use three or more gallons water per acre. For ground application, use sufficient water to give good coverage. There is no waiting period between treatment and grazing for animals *other than dairy cattle* when using Banvel alone. Do not apply by plane when sensitive crops are nearby.