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HENBIT AND MUSTARD CONTROL IN WHEAT AND ALFALFA

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Two types of winter weeds are rapidly increasing in wheat and alfalfa in Oklahoma. They are henbit (Lamium amplexicaule) and various members of the mustard family. There are six members of the mustard family that are most commonly found in wheat and alfalfa fields. They are tansy mustard (Descurinia pinnata), treacle mustard (Erysimum repandum), wild mustard (Brassica kaber), Pennycress (Thlaspi arvense), shepherd's purse (Capsella bursa-pastoris), and pepperweed (Lepidium campetrite). There are small amounts of others such as ball, tumble, and hedge mustards but the six mentioned appear to be the chief problem at this time. These weeds germinate in the fall and grow during the warm days of winter and early spring. They are more abundant during years of high rainfall.

Henbit is a winter annual that starts growth in September or early October. It is shallow rooted and has stems with numerous ascending branches frequently rooting at the lower nodes. The stems are square and the flowers are lavender to blue.

CONTROL IN WHEAT

There is some question as to how beneficial control of henbit will be to wheat yields. Preliminary tests run near Enid indicated that yields were as good where

the henbit was not controlled as where control methods were used. However, there is a need for more testing than is now available concerning this problem.

The control of henbit in wheat is not easy. In tests run at Oklahoma State University approximately 50-80% control was obtained with bromoxynil, MCPA, Banvel, or 2,4-D if applied when the henbit plants were very young. If applied after the henbit was 3 inches in height the control was much poorer. These preliminary results would indicate that late October and November would be a much better time to use these herbicides for henbit control than the mid-winter or early Spring treatments.

Bromoxynil sold as either Bromanil or Buctril is approved for use anytime from the two leaf stage to boot stage. Rates used in experimental tests ranged from 4 to 8 ounces per acre. Six ounces appeared to give satisfactory control on young henbit plants. This herbicide is temperature dependent and must be applied when the weather is warm. Bromoxynil is a contact herbicide and will not control weeds not sprouted at time of application. Retreatment may be needed in late winter or early spring if a new henbit crop germinates after initial treatment.

Both MCPA and 2,4-D are approved for use in wheat while it is tillering

(stooling) to the jointing state. Both of these herbicides are rated as poor for henbit control but have given fair control if used when the henbit was very small. These are phenoxy type herbicides and will control many types of broadleaf weeds such as the mustard species. Rate to use depends on the formulation. Follow the label carefully. For maximum effectiveness, use these herbicides during a warm spell if possible.

Banvel is approved for use in the Spring on winter wheat, but the margin of selectivity is low. It would not be useful for the initial weed crop in the fall. This herbicide is effective for control of many broadleaf weeds. Be sure to apply properly following grazing restrictions on the label.

All of the mustards are susceptible to 2,4-D. This herbicide should not be applied to seedlings, but can be applied after the wheat begins to tiller. Best control is obtained if the weed plants are treated when small and actively growing.

CONTROL IN ALFALFA

Fairly good control of henbit can be obtained with some of the preplant herbicides such as Balan, Planavin, or Eptam if they are used before the alfalfa is seeded in the fall. However, when these have not been used it is necessary to go to a post-emergence treatment in seedling stands. The only postemergence treatment available at this time is use of dinitro (DNBP) after the alfalfa has had a good freeze or two on it and is in the dormant condition. This compound can be used on either seedling or established alfalfa while it is dormant. In order to get maximum effect from dinitro it should be applied on a warm sunny day. A ten degree change in temperature will make a lot of difference in the performance of dinitro. It should be applied when the henbit is fairly small in the fall. If late winter or early spring henbit germination is a problem another application will be necessary in January or February. For more information on herbicides that can be used for weed control in established stands of alfalfa, see fact sheet 2761.

The members of the mustard family that are now a problem in alfalfa can be

controlled with 2,4-DB. This compound is sold as Butyrac or Butoxone. It is used in alfalfa to control many summer annual broadleaf weeds as well as the winter annuals. The use of 2,4-DB for control of henbit has not been very effective.

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