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INSECT, PLANT DISEASE, & WEED SCIENCE NEWS [No. 87-5] [April 7, 1987]

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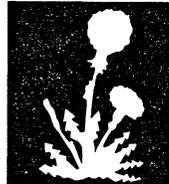
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**INSECT
PLANT DISEASE
WEED SCIENCE**

NEWS

DEPARTMENT OF AGRONOMY (WEED SCIENCE) UNIVERSITY OF NEBRASKA-LINCOLN,
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87-5
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In This Issue:

-Weed Control Considerations on CRP Acres

The Conservation Reserve Program is raising questions that many growers have not faced before. These questions relate to choice of permanent grass cover, how to get from an existing residue or crop into the permanent grass, what to do this year if grass seed is not available for planting the permanent cover, and probably many other situations. Some typical situations growers may face are discussed below, primarily from the viewpoint of weed control.

I. Alfalfa or clover on land going to switchgrass. Apply 1.5 qt 2,4-D (4 lb/gal product) on actively growing legume at the 3 to 4 inch height. Allow three weeks for 2,4-D residue to degrade, then disk to prepare a seedbed. The 2,4-D degradation process may be speeded up slightly by waiting 10 days after spraying for 2,4-D to translocate throughout the legume root system, then disk. Wait another 7 days, disk lightly if necessary, then plant the switchgrass. If the soil is loose, firm the seedbed by rolling before planting seed. If a no-till drill is available, the switchgrass seed could be planted into the legume residue without tillage. Apply 2 qt/acre atrazine as a preemergence application for annual weed control. Switchgrass should be planted by May 15. Any surviving legume should not be a serious contaminant in the established switchgrass.

II. Crop residue on land going to switchgrass. Disk to prepare a seedbed. Firm the seedbed if loose before planting the switchgrass. Apply 2 qt/acre atrazine for annual weed control. Oats at 15 to 20 lb/acre can be planted with switchgrass for quicker soil surface protection. The oats will be killed by the atrazine within 3 weeks.

III. Crop residue on land going to cool-season species. Disk and prepare a firm seedbed. Plant the seed with a drill at the proper seed depth. Oats at 15 to 20 lb/acre can be used as a companion crop. Spring plantings of cool-season grasses will probably have more problems with weeds than will mid-August establishment. Brominal ME4 herbicide can be used in the spring for broadleaf weed control in newly seeded and established CRP acres. Apply 1/2 to 1 pt/acre of Brominal ME4 when weeds do not exceed the 4 leaf stage. Fescue, orchardgrass, and ryegrass are specifically mentioned on the Brominal label. Brominal has been used successfully in Nebraska on both cool- and warm-season grasses. Brominal controls many annual broadleaf weeds, however, pigweeds are often only suppressed. Underseeded legumes such as alfalfa and red clover may show temporary leaf burn from Brominal. Sweet clover is less tolerant and may be killed.



If cool-season grasses are to be planted in August rather than in the spring, residue cover must be maintained and weed seed production prevented during the summer. A variety of management options exist for doing this, some of which are:

1. Control weeds with tillage while maintaining necessary residue cover. This may be possible if a heavy cover of corn stalks is on the field. A light disking may be necessary to cut stalks and smooth ridges. Subsequent tillage with a blade plow may maintain the necessary crop residue. This program will not work for soybean or oat residue, however.

2. Plant a temporary cover crop like oats. This may be a good approach on fields which were in soybeans or oats last year.

3. Use a non-residual or short residual herbicide for weed control. One example is Roundup + 2,4-D. Leave the previous years residue on the field. Allow weeds to come up and grow to a height of six inches or less for grass species. Apply 12 ounces of Roundup + 1 pt of 2,4-D amine. Add a non-ionic surfactant and dry ammonium sulfate. Apply in 10 gallons of spray solution per acre. Depending upon moisture conditions, it may be necessary to retreat later weed growth or mow to prevent weed seed production.

Prepare a firm seedbed in early August and plant the cool-season grass mixture.

IV. Establishment of legumes as temporary cover on CRP or ACR acres. Alfalfa, red clover, and sweet clover alone or mixed are excellent crops to plant on set aside acres for soil-building. Oats, spring wheat, or barley may be used as a companion crop with the legumes to control weeds. Barley develops a much denser canopy than oats, and may restrict legume growth. The small grain will have to be clipped to prevent seed production. When legumes are established with a spring cereal grain, it is usually not necessary to apply a herbicide. If it became necessary to control broadleaf weeds, Brominal ME4 could be used.

The legumes may also be solo-seeded with use of a herbicide for weed control. Three herbicides may be used, Treflan, Balan, or Eptam/Genep. Application rates are Treflan, 1 to 1 1/2 pt; Eptam/Genep, 2.5 to 3.5 pt; and Balan, 3 to 4 qt/acre. All must be soil incorporated by cross tandem disking. Annual grasses and pigweeds are the primary weeds controlled. Sweet clover probably has less tolerance to the herbicides than do alfalfa and red clover. The legumes have better tolerance to Balan than to Treflan, but Treflan is less expensive. Poast at 1 pt/acre can also be used to establish legumes, either with or without oats as a companion crop. Oats can be used with the legume for quick ground cover and protection for legume seedlings. When Poast is applied for annual grass weeds, the oats will also be killed.



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