

WEED CONTROL IN ALFALFA - PRESENT & FUTURE

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Introduction

To achieve maximum alfalfa production and maintain excellent stands and forage quality for a number of years, producers need to start including weed control in their management program. Unfortunately good stands are not being established because of early weed competition where herbicides are not used. Alfalfa stands tend to play out before achieving their maximum number of years of production unless maintenance herbicides are used. Fortunately there are now herbicides registered to meet most every phase of alfalfa production.

This paper will deal primarily with the herbicides that are currently labeled for use on alfalfa. Several herbicides that are not registered but show excellent promise for use postemergence on established alfalfa for the control of annual and perennial grasses will be presented. It is important to remember that it is illegal to apply a pesticide to a crop for which it is not registered.

Table 1. Herbicides applied prior to planting newly seeded alfalfa in prepared seedbeds.

| Herbicide  | Amount<br>per acre | Weeds Controlled   |
|------------|--------------------|--|
| Balan 1.5E | 3 to 4 qt.         | Crabgrass, fall panicum, foxtails,<br>goosegrass, lambsquarters, pigweeds  |
| Eptam 7E   | 3.5 pts.           | Crabgrass, fall panicum, foxtails,<br>goosegrass, seedling johnsongrass<br>shattercane, lambsquarters,<br>pigweeds |

Table 2. Herbicides applied prior to seeding in no-tillage alfalfa plantings.

| Herbicide           | Amount<br>per acre        | Weeds Controlled                             |
|---------------------|---------------------------|--|
| Ortho Paraquat-plus | 2E <sup>a</sup> 1 to 2 pt | All existing vegetation.                     |
| Gramoxone           | 2E <sup>a</sup> 1 to 2 pt | Perennial species may re-<br>cover and grow. |
| Roundup 4E          | 3 pt                      | All existing vegetation.                     |

<sup>a</sup> non-ionic surfactant should be added to increase control.

Established stands - Herbicides (Tables 3, 4, 5) can be applied to both dormant and actively growing alfalfa for control of grasses and broadleaves. Recommended rates should be closely followed to prevent alfalfa injury.

Table 3. Herbicides applied to dormant alfalfa.

| <u>Herbicide</u>                        | <u>Amount<br/>per acre</u> | <u>Weeds Controlled</u>  |
|---|----------------------------|--|
| Lexone 50W                              | 1 to 2 lb                  | Chickweed, henbit, jimsonweed, lambsquarters, mustards, pigweeds, purslane, ragweed, shepherdspurse, smartweed, spurge, yellow rocket, crabgrass, foxtails, fall panicum |
| Lexone 4L                               | 1 to 2 pt                  | Same as Lexone 50W   |
| Lexone DF                               | 0.7 to 1.3 lb              | Same as Lexone 50W   |
| Ortho Paraquat-<br>plus 2E <sup>a</sup> | 2 pt                       | All existing vegetation. Some perennials and large annuals may recover and grow.   |
| Gramoxone 2E <sup>A</sup>               | 2 pt                       |  |
| Sencor 50W                              | 1 to 2 lb                  | Chickweed, henbit, pepperweed, shepherdspurse, yellow rocket, dandelion, barnyardgrass   |
| Sencor 4                                | 1 to 2 pt                  | Same as Sencor 50W   |
| Sencor DF                               | .7 to 1.3 lb               | Same as Sencor 50W   |
| Sinbar 80W                              | 1 to 1.5 lb                | Chickweed, henbit, lambsquarters, mustard peppergrass, prickly lettuce, shepherdspurse, yellow rocket, crabgrass, foxtails   |
| Velpar L                                | 1 to 3 qt.                 | Annual bluegrass, chickweed, dandelion, groundsel, lambsquarter, crabgrass, field pennycress, fleabane, foxtails, pigweed, shepherdspurse, yellow rocket, downy brome.   |

<sup>a</sup> non-ionic surfactant should be added to increase control.

Table 4. Herbicides that can be applied to either actively growing or dormant alfalfa.

| Herbicide                          | Amount<br>per acre        | Weeds Controlled   |
|------------------------------------|---------------------------|--|
| Butyrac 200 <sup>a</sup>           | 2 qt                      | Lambsquarters, pigweed, pennycress, common mustard, ragweed, yellow rocket                             |
| Furloe 4EC <sup>b</sup>            | 1 to 2 qt<br>(Oct.-Jan.)  | Chickweed, cress, dodder, purslane, shepherdspurse, smartweed  |
|                                    | 2 to 3 qt<br>(After Feb.) |  |
| KERB 50W <sup>c</sup>              | 1 to 3 lb                 | Chickweed, orchardgrass, sheep sorrel, quackgrass, mustards, shepherdspurse                            |
| Princep 80W <sup>d</sup>           | 1 to 1.25 lb              | Figweed, chickweed, henbit, pepperweed, lambsquarters, shepherdspurse, field pennycress, yellow rocket |
| Princep<br>Caliber 90 <sup>d</sup> | 0.9 to 1.1                | Same as Princep 80W  |

<sup>a</sup> In new seedlings spray 2 to 4 weeks after alfalfa emergence.

<sup>b</sup> Apply to new seedlings after true leaves of alfalfa have formed.

<sup>c</sup> Alfalfa should have trifoliolate leaves formed prior to spraying.

<sup>d</sup> Use the lower rates for stands less than one year old.

Table 5. Between harvest applications of Paraquat 2E<sup>a</sup> or Gramoxone 2E<sup>a</sup>

| Herbicide                           | Amount<br>per acre | Weeds Controlled                       |
|-------------------------------------|--------------------|--|
| Ortho Paraquat-plus 2E <sup>b</sup> | 1 pt               | Annual grasses and broadleaves.        |
| Gramoxone 2E <sup>b</sup>           | 1 pt               | Suppression of some perennial species. |

<sup>a</sup> Applications must be made within 5 days of cutting to prevent alfalfa injury.

<sup>b</sup> non-ionic surfactant should be added to increase control.

Table 6. Herbicides of the future that show promise for annual and perennial grass control in established non-dormant alfalfa.

| Herbicide                | Amount<br>per acre | Weeds Controlled  |
|--------------------------|--------------------|---|
| Poast 1.5E <sup>a</sup>  | 1-1.5 pt           | Foxtails, Johnsongrass, wild<br>cane, Goosegrass, crabgrass,<br>Fall panicum. |
| Fusilade 4E <sup>a</sup> | .375-.5 pt         | Foxtail, Johnsongrass, wild cane,<br>crabgrass, Goosegrass, Fall<br>panicum   |
| Verdict 4E               | .375-.5 pt         | Foxtail, Johnsongrass, wild cane,<br>Goosegrass, crabgrass.                   |
| Assure .8E               | .5-1 pt            | Foxtail, Johnsongrass, wildcane,<br>Goosegrass, crabgrass.                    |

<sup>a</sup>Crop oil concentrate should be added at the rate of 1 qt per acre to increase control.