

ALFALFA ESTABLISHMENT, No Companion Crop

| Herbicide | Product/A (ai/A) | Weeds | When to Apply | Remarks and Paragraph |
|--|--|--|---|---|
| Refer to page 6 for Fall or Spring Early Preplant Herbicides. | | | | |
| Eptam (EPTC ⁸) | 2 to 4.5 pt EC 10 to 20 lb 20G (1.75 to 4 lb) | Grass and some broadleaf weeds. | PPI. | Poor wild mustard control. Incorporate immediately after application. The 2 pt/A rate can be used on all varieties. A1-2 B1 P1 |
| Treflan / generic trifluralin ³ | 1 to 1.5 pt EC (0.5 to 0.75 lb) | | | Alfalfa stand reduction/stunting possible but reduced weed competition will help alfalfa establishment. P1 |
| Prowl H₂O (pendimethalin ³) | 1 to 2 pt EC (0.48 to 0.95 lb) | Annual grass and some broadleaf weeds. | PRE to weeds. Alfalfa: <6 inches of regrowth. | Allow a 50 day PHI. Refer to label for use instructions. A1-2 B1 B7 P1 |
| Warrant (acetochlor ¹⁵ - microencapsulated) | 1.25 to 2 qt 3ME (0.94 to 1.5 lb) | PRE control of grass and broadleaf weeds. | Fall or spring: Emergence up to 4 th trifoliolate stage | Sequential application is allowed. Wait a minimum of 20 days after application before cutting for forage or hay, or before open grazing of forage. See label for tank mix options. Do not use on alfalfa grown for seed. |
| 2,4-DB ⁴ ester 2,4-DB ⁴ amine | 2 to 4 pt 2EC/SL (0.5 to 1 lb ae) | Small broadleaf weeds. | Alfalfa: More than 2 trifoliolate leaves. Weeds: <3 inches. | Sweetclover may be killed by 2,4-DB. Poor wild mustard control. No absinth wormwood control. Allow a 60 day PHI or grazing interval. P1 |
| Bromoxynil⁶ For Alfalfa Only | 1 to 1.5 pt EC (0.25 to 0.38 lb) | | Alfalfa: At least 4 trifoliate. Weeds: Small. | Sweetclover may be killed. Alfalfa injury may occur if temperature within 3 days of application exceeds 80F in the western half or 70F in the eastern half of ND. Can be tank-mixed with Pursuit or Raptor. P1 |
| Pursuit (imazethapyr ²) For Alfalfa Only | 3 to 4 fl oz SL (0.75 to 1 oz ae) | Small annual broadleaf and grass weeds. | Fall or Spring. POST: Alfalfa: At least 2 trifoliate. | Apply to seedling, established, dormant, actively growing alfalfa or between cuttings. Excellent alfalfa safety. Add MSO at 1.5 pt/A + UAN at 1 to 2 qt/A. Can be tank-mixed with Buctril/bromoxynil or Poast. A3 A5-8 P1 |
| Raptor (imazamox ²) For Alfalfa Only | 4 to 6 fl oz SL (0.5 to 0.75 oz ae) | Poor yellow foxtail, lambsquarters, ragweed, and buckwheat control. No perennial weed control. | Weeds: 1- to 3-inches tall. | |
| Poast (sethoxydim ¹) | 0.5 to 1.5 pt EC (0.19 to 0.28 lb) | Annual grasses. | POST. Alfalfa: Allow a 15 days PHI. | May be applied to alfalfa and sainfoin. Add oil adjuvant at 1 gal/100 gal water but not less than 1.25 pt/A. Refer to label for tank-mix options. |
| Select Max 1EC Select 2EC Shadow 3EC (clethodim ¹) | 9 to 16 fl oz EC 4 to 8 fl oz EC 2.66 to 5.33 EC (1 to 2 oz) | Annual grasses and quackgrass. | Grass weeds: See soybean section on page 27. | Refer to Remarks in the POST grass herbicide section under Soybean for methods to avoid antagonism and reduced grass control from broadleaf herbicides. A3 A5-6 |

HERBICIDE RESISTANT ALFALFA

Roundup Ready Alfalfa - Established

| Herbicide | Product/A (ai/A) | Weeds | When to Apply | Remarks and Paragraphs |
|-------------------------|---|---|---|---|
| Glyphosate ⁹ | Maximum single application = 1.56 lb ae Maximum in-crop = 4.5 lb ae See Remarks. | Emerged annual and perennial grass and broadleaf weeds. | RR Alfalfa: Emergence to 5 days prior to any cutting (PHI). Apply as a single application or multiple applications at least 7 days apart. | Apply only to glyphosate resistant alfalfa. Add AMS fertilizer at 8.5 lb/100 gal. Multiple applications may be necessary to control weed flushes. Refer to label for weeds controlled, application information, tankmix options with residual herbicides, and restrictions. A3-7 B8 P1 |

ALFALFA - ESTABLISHED

| Herbicide | Product/A (ai/A) | Weeds | When to Apply | Remarks and Paragraphs | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|-------------------|--------------------|------------------|--|--|-----------|-----------|-------|-------|--|---|-----|------|------------|--|-----|-------|--------|--------------|
| Paraquat ²² + NIS RUP | 2 to 3 pt 2SL 1.3 to 2 pt 3SL (0.5 to 0.75 lb) | Small annual and early germinating weeds. | Alfalfa: Before spring regrowth is 2 inches tall. | Apply to well established stands, at least 1 year old, after dormancy but before spring regrowth reaches 2 inches. Allow a 60 day PHI or grazing interval. B11 P1 | | | | | | | | | | | | | | | | | | | | |
| | 1 pt 2SL 0.7 pt 3SL (0.25 lb) | Larger weeds. | Between cuttings - includes first-year alfalfa. | Apply up to 5 days after cutting. Allow a 30 day PHI. May be applied to dormant alfalfa. B11 P1 | | | | | | | | | | | | | | | | | | | | |
| Sharpen + MSO adjuvant (saflufenacil ¹⁴) | 1 to 2 fl oz SC + 1 to 1.5 pt (0.36 to 0.72 oz) | Broadleaf weeds. | Established and dormant alfalfa: Fall or spring. Weeds: Small. | Do not apply Sharpen to alfalfa grown for seed because reduced germination/vigor may occur. Apply at 10 gpa or greater. Allow a 28 day PHI. Refer to label for use and tank-mix instructions. | | | | | | | | | | | | | | | | | | | | |
| Treflan / generic trifluralin³ | 1.5 to 2 pt EC (0.75 to 1 lb) | Annual grass and some broadleaf weed. | Weeds: Prior to emergence. | Apply when crop is dormant, or in fall after a cutting. Incorporate by irrigation or mechanical equipment. A1-2 B7 P1 | | | | | | | | | | | | | | | | | | | | |
| Prowl H₂O (pendimethalin ³) | 1 to 2 pt ASC (0.48 to 0.95 lb) | | Weeds: PRE. Alfalfa: 2 to 6 inches of regrowth. | Allow a 50 day PHI. Refer to label for use instructions. A1-2 B1 B7 P1 | | | | | | | | | | | | | | | | | | | | |
| Warrant (acetochlor ¹⁵ - microencapsulated) | 1.25 to 2 qt 3ME (0.94 to 1.5 lb) | PRE control of grass and broadleaf weeds. | After spring green-up in established stands. Apply no later than 7 days after a cutting. | Sequential application is allowed. Wait a minimum of 20 days after application before cutting for forage or hay, or before open grazing of forage. See label for tank mix options. Do not use on alfalfa grown for seed. Do not apply more than 4 qt per year. | | | | | | | | | | | | | | | | | | | | |
| Chateau (flumioxazin ¹⁴) | <4 oz / application (<2 oz) <8 oz / season (<4 oz) | Small-seeded broadleaf weed. | PRE to weeds. Alfalfa: <6 inches of regrowth. | Separate sequential Chateau applications by at least 60 days. Apply soon after cutting and removing alfalfa to minimize alfalfa injury. Refer to label for use instructions. A1-2 B1 P1 | | | | | | | | | | | | | | | | | | | | |
| 2,4-DB ⁴ ester 2,4-DB ⁴ amine | 2 to 4 pt EC 2 to 4 pt SL (0.5 to 1.0 lb ae) | Broadleaf weeds. | Weeds: Less than 3 inches tall. | Sweet clover may be killed by 2,4-DB. No wild mustard or absinth wormwood control. Allow a 30 day hay, harvest or grazing interval. P1 | | | | | | | | | | | | | | | | | | | | |
| Pursuit (imazethapyr ²) | 3 to 4 fl oz SL (0.75 to 1 oz ae) | Small annual broadleaf and grass weeds. | POST. Alfalfa: At least 2 trifoliates. Weeds: 1- to 3-inches tall. | For alfalfa and clover Only. Excellent alfalfa safety. Add oil additive at 1.5 to 2 pt/A + UAN at 1 to 2 qt/A. No absinth wormwood control. Can be tank-mixed with bromoxynil or Poast. A1 A3 A5-6 P1 | | | | | | | | | | | | | | | | | | | | |
| Raptor (imazamox ²) | 4 to 6 fl oz SL (0.5 to 0.75 oz ae) | | | | | | | | | | | | | | | | | | | | | | | |
| Poast (sethoxydim ¹) | 0.5 to 1.5 pt EC (0.2 to 0.3 lb) | Annual grasses. | Grass. Alfalfa: PHI:15 days. | Add oil adjuvant at 1 gal/100 gal water but not less than 1.25 pt/A. Refer to label for tank-mix options. Refer to Remarks in the POST grass herbicide section under Soybean for methods to avoid antagonism and reduced grass control from broadleaf herbicides. Apply in two sequential applications for quackgrass control. A3-7 B2 P1 | | | | | | | | | | | | | | | | | | | | |
| Select Max 1EC Select 2EC Shadow 3EC (clethodim ¹) | 9 to 16 fl oz EC 4 to 8 fl oz EC 2.66 to 5.33 EC (1 to 2 oz) | Annual grasses and quackgrass. | Grass weeds: Refer to soybean section on page 27. | | | | | | | | | | | | | | | | | | | | | |
| Glyphosate ⁹ | 0.75 to 1.5 lb ae See Remarks. | Alfalfa and emerged grass and broadleaf weeds. | Apply in spring or fall for quackgrass control. | <table style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align: center;"><u>0.75 lb ae</u></td> <td style="text-align: center;"><u>1.125 lb ae</u></td> <td style="text-align: center;"><u>1.5 lb ae</u></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">lb ae/gal</td> <td style="text-align: center;">lb ai/gal</td> <td style="text-align: center;">fl oz</td> <td style="text-align: center;">-----</td> </tr> <tr> <td></td> <td style="text-align: center;">3</td> <td style="text-align: center;">= 4</td> <td style="text-align: center;">= 32</td> <td style="text-align: center;">48 64</td> </tr> <tr> <td></td> <td style="text-align: center;">4.5</td> <td style="text-align: center;">= 5.5</td> <td style="text-align: center;">= 21.3</td> <td style="text-align: center;">32 42.6</td> </tr> </table> <p>Apply where crop destruction is acceptable. Treated crop and weeds can be harvested and fed >36 hours after treatment. Apply with AMS fertilizer at 8.5 lbs/100 gal. A3-7 B8</p> | | <u>0.75 lb ae</u> | <u>1.125 lb ae</u> | <u>1.5 lb ae</u> | | | lb ae/gal | lb ai/gal | fl oz | ----- | | 3 | = 4 | = 32 | 48 64 | | 4.5 | = 5.5 | = 21.3 | 32 42.6 |
| | <u>0.75 lb ae</u> | <u>1.125 lb ae</u> | <u>1.5 lb ae</u> | | | | | | | | | | | | | | | | | | | | | |
| | lb ae/gal | lb ai/gal | fl oz | ----- | | | | | | | | | | | | | | | | | | | | |
| | 3 | = 4 | = 32 | 48 64 | | | | | | | | | | | | | | | | | | | | |
| | 4.5 | = 5.5 | = 21.3 | 32 42.6 | | | | | | | | | | | | | | | | | | | | |

FORGE LEGUMES

P1. Seedling legumes are poor competitors with weeds. Use good management practices in preceding crops, such as clean cultivation in row crops and post-harvest tillage to reduce weed seeds in soil. Weed control for establishment of legumes sown alone can be aided by mowing (except sweetclover), herbicides, or by seeding a companion crop. Strong alfalfa competition may improve control of weeds that escape herbicide activity. Except for use of glyphosate in Roundup Ready alfalfa, there is no chemical control for absinth wormwood.