

# Potato

## All Weeds

A relatively large number of herbicides are labeled for use on potatoes, and there are many opportunities to apply them because the hilling process recreates a preemergent crop situation by burying crop leaves and protecting them from soil surface sprays.

For specific weeds controlled by each herbicide, check the Relative Effectiveness of Herbicides for Vegetable Crops table.

Rates provided in the recommendations below are given for overall coverage. For a banded treatment, reduce amounts according to the portion of acre treated.

## Non-Pesticide

### Non-Pesticide Options





Potato cultural practices offer several good opportunities to control weeds, beginning with the period between planting and emergence (when early-emerging weeds can be killed by flaming), and continuing through the hilling process (when weeds can be buried or cultivated out). Some organic farmers also use flaming after potatoes emerge because some injury to the potato foliage early in the season can be tolerated. Rolling cultivators on wide tool-bars offer effective high-speed cultivation between rows and can also hill.

## Pesticide

**Aim EC | carfentrazone** |   0.5-2 fl. oz. per acre.

Apply prior to or within 24 hours of planting, or apply between crop rows with hooded sprayer. Do not allow spray to contact crop. Use COC (1% v/v) or NIS (0.25% v/v). Weeds must be actively growing and less than 4 inches tall. Do not exceed 6.1 fl. oz. per acre per season.

REI: 12-hour. PHI: 7-day. HRAC 14 .


**Anthem Flex | carfentrazone , pyroxasulfone** |     3.5-6.0 fl. oz. per acre.

Apply as a broadcast spray to the soil surface after planting, drag-off, or hilling. Ensure that a minimum of 2 inches of soil cover the vegetative portion of the potato plants. Use lower rates on coarse soils.

Do not exceed 6 fl. oz. per acre in a single application or more than 9.12 fl. oz. per acre per year. Do not apply to soil with less than 1% organic matter.

REI: 12-hour. PHI: 0-day. HRAC 14 . HRAC 15 .

**Chateau SW | flumioxazin** | 

 1.5 oz. per acre of Chateau SW or 1.5 fl. oz. per acre of ChateauEZ.

*Minnesota only.* Apply to potatoes after hilling. A minimum of 2 inches of soil must cover vegetative plant parts when applied to avoid injury. Provides suppression of lambsquarters, nightshades, pigweeds, wild mustard, and wild radish. Tank-mixes recommended to improve efficacy.

REI: 12-hour. HRAC 14 .




**clethodim products | clethodim** |  

Use 2EC formulations at 6-16 fl. oz. per acre with COC (1% v/v).

Use Select Max at 9-32 fl. oz. per acre with COC (1% v/v) or NIS (0.25% v/v).

Use low rates for annual grasses, the high rates for perennial grasses. Spray on actively growing grass. Wait at least 14 days between applications. Do not exceed 32 fl. oz. of 2EC formulations or 64 fl. oz. of Select Max per acre per season.

REI: 24-hour. PHI: 30-day. HRAC 01 .

**Dual Magnum | s-metolachlor** |    1-2 pts. per acre.


Dual Magnum or Dual II Magnum at 1-2 pts. per acre. Use lower rates on coarse soils. Apply and incorporate before planting, or apply after planting before weeds emerge. May also be applied at 1.67 pts. per acre after hilling. Dual Magnum might delay maturity and/or reduce yield of Superior and other early maturing varieties if cold, wet soil conditions occur after treatment. Dual Magnum can be tank-mixed with Lorox, Sencor, Prowl or Eptam. See labels. Do not exceed 3.6 pts. per acre.

REI: 24-hour. PHI: 60-day if applied before drag-off, or 40-day if applied at lay-by. HRAC 15 .

**Eptam 7E | EPTC** |   

Eptam 7E at 3.5-7 pts. per acre, or Eptam 20G at 15-20 lbs. per acre. Apply before planting, after drag-off, or as directed spray at lay-by. Incorporate immediately. On muck soils, supplement with linuron or metribuzin products applied before crop emerges and after drag-off. The Superior variety may be sensitive. Suppresses nutsedge.

REI: 12-hour. PHI: 45-day. HRAC 15 .

**glyphosate products | glyphosate** |    0.375-3.75 lbs. acid equivalent (ae) per acre.





Divide lb. acid equivalent (ae) per acre target rate by lb. ae per gal and then multiply by 4. For example, for RoundUp ULTRA at the high rate, (3.75 lb ae per acre / 3 lb ae per gal) \* 4 = 5 qt. per acre of actual product. Broadcast before planting, after planting before ground cracks, or apply between crop rows with wipers or hooded or shielded sprayers. Use low rate for annuals and higher rates for perennials. See label for suggested application volume and adjuvants.

REI: 4-hour to 12-hour. PHI: 14-day. HRAC 9 .

**League | imazosulfuron** |    4.0-6.4 oz. per acre.





Apply after planting crop and before crop emerges, or immediately after hilling. Or use 3.2 oz. per acre and after at least 21 days make a second application of 3.2 oz. per acre to control emerged weeds less than 3 inches tall. Or use 3.2-4 oz. per acre after crop emerges and before weeds are 3 inches tall; combine this with other measures to achieve satisfactory control. When emerged weeds are present use a Valent-recommended surfactant. Use the high rate in fields with a known history of nutsedge. Do not exceed two applications and 6.4 oz. per acre per year.

REI: 12-hour. PHI: 45-day. HRAC 02 .

**Lorox DF | linuron** |    

Use 50DF formulations at 1.5-3 lbs. per acre. Use 4L formulations at 1.5-4 pts. per acre. Also controls small, emerged weeds. Apply after planting but before crop emergence, when weeds are less than 2 inches tall. Seed pieces must be planted at least 2 inches deep. Do not use on sand, loamy sand, or soils with less than 1% organic matter.

REI: 24-hour to 8-day. HRAC 05 .

**Matrix SG | rimsulfuron** |     1-1.5 oz. per acre.

Typically combined with full-labeled rates of metribuzin to improve spectrum of broadleaf control. Use 0.5 pt. of NIS per 25 gals. of spray solution if emerged weeds are present. Apply after planting before crop emerges, at hilling, drag-off, or reservoir tillage, to a clean, newly prepared seedbed. Apply post when weeds are less than 1 inch tall. Avoid using adjuvants when potatoes are under heat stress. Do not exceed 2.5 oz. per acre per year.

REI: 4-hour. PHI: 30-day. HRAC 02 .

**metribuzin products | metribuzin** |    

Use 4F formulations at 0.5-2 pts. per acre, or 75DF formulations at 0.33-1.32 lbs. per acre. Not for early-maturing or red-skinned varieties. Apply after planting before crop emerges, or apply up to 1 pt. of metribuzin 4F (1.32 lbs. of 75DF formulations) after emergence. Check label for sensitive varieties. Avoid spraying when potatoes are 12-15 inches tall. Do not apply within 3 days of cool, wet, or cloudy weather, or crop injury may occur. Do not apply within 1 day of other pesticide applications. Do not exceed 2 pts. of 4F formulations or 1.32 lbs. of 75DF formulations per acre per year.

REI: 12-hour. PHI: 60-day. HRAC 05 .

**Outlook | dimethenamid-p** |    12-21 fl. oz. per acre.

Apply after planting or drag-off and before weeds emerge. In cold and wet conditions potatoes may emerge slowly or be stunted. May be tank-mixed with a number of other potato herbicides.

REI: 12-hour. PHI: 40-day. HRAC 15 .

**paraquat products | paraquat** |    1-2 pts. per acre.

Use 1-2 pt. per acre of 2SL formulation or 0.7-1.3 pt. per acre of 3SL formulation. Use COC (1% v/v) or NIS (0.25% v/v). Apply before planting, or after planting but before ground cracks. Certified applicators must successfully complete an EPA-approved training program before mixing, loading, and/or applying paraquat.

REI: 12 to 24-hour. HRAC 22 . RUP.

**pendimethalin products | pendimethalin** |   

Use 3.8 formulations at 1.5-3 pts. per acre. Use 3.3EC formulations at 1.2-3.6 pts. per acre. Use low rates on coarse soils. Broadcast after planting but before emergence or drag-off, or after potatoes have fully emerged before potatoes are 6 inches tall. May be incorporated. Not effective on muck soils. Do not apply postemergence to stressed potatoes.

REI: 24-hour. HRAC 03 .

**Poast | sethoxydim** |   1.0-2.5 pts. per acre.

Use COC (1% v/v). Spray on actively growing grass. Use high rate on quackgrass. Do not exceed 5 pts. per acre per season.

REI: 12-hour. PHI: 30-day. HRAC 01 .

**Reflex | fomesafen** |   1 pt. per acre.

Broadcast after planting and before potatoes emerge. When using on any variety for the first time, first determine whether the variety is tolerant to this herbicide. May be tank-mixed with other preemergence herbicides. May not be used on the same land the following year. Alfalfa and most vegetables should not be planted for 18 months.

REI: 24-hour. PHI: 70-day. HRAC 14 .

**trifluralin products | trifluralin** |    0.5-1 lb. a.i. per acre.


Use 4EC formulations at 1-2 pts. per acre. Use 10G formulations at 5-10 lbs. per acre. Broadcast and incorporate 1-2 inches after planting but before emergence, immediately after drag-off, or after potatoes have fully emerged. Use low rate on coarse soils with less than 2% organic matter. Not effective on muck or high organic matter soils.

REI: 12-hour. HRAC 03 .

**Tripzin ZC | metribuzin , pendimethalin** |     31-62 fl. oz. per acre.

Before potatoes are 6 inches tall. May be incorporated. Not effective on muck soils. Do not apply postemergence to red-skinned varieties or to stressed plants.

REI: 24-hour. HRAC 05 . HRAC 03 .

**Zidua SC | pyroxasulfone** |    2.5-3.25 fl. oz. per acre.

Apply after planting and before potatoes emerge. Use with another herbicide. Some varieties may be sensitive to Zidua.

REI: 12-hour. HRAC 15 .

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