

Weed Control in Sweet Corn

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Choosing a Sweet Corn Weed Control Program

- 1. Soil type
- 2. Rotation
- 3. Sweet corn hybrid
- 4. Weed spectrum
- 5. Season

Soil Type

- 1. On light (sandy) soil, pre grass herbicides can stunt SWCO, especially early in season (Dual, Lasso, Outlook, Prowl)
- 2. In areas with sandy soil and high water table, atrazine use may be restricted.
- 3. Sandy soil is more likely to have carryover problems for following crops.

Rotation

Growers planting SWCO in rotation with other vegetable crops should avoid herbicides with long residual problems. Atrazine is of primary concern. A general rule is: Maximum of 1 lb ai atrazine before July 1, if the soil has at least 3% OM or 20% clay. Less OM, use less atrazine or use it pre only.

Hybrid

- SWCO hybrids vary in their tolerance of herbicides. This is especially true of super sweet (sh2) types and sulfonylurea herbicides e.g. Permit and Accent. Some labels list sensitive hybrids, but it is difficult to remain current.
- New herbicides may be more problematic, so growers will have to accept some responsibility for crop injury.

Weed Spectrum

1. Know your weeds
2. Check labels for weeds controlled
3. Choose a weed control program before you plant
4. Cultivate plus sidedress at 6-8 in corn.

Season

1. Early in year, SWCO germinates slowly in cold soil. Sh2 is especially sensitive. Some hybrids also are more sensitive to pre grass herbicides then. Use lower rate, or only atrazine if you have trouble with Dual, Lasso, or Outlook. Use Prowl only after corn is up to avoid injury.
2. In warm weather, increase herbicide rate if needed.

Preemergence Herbicides Registered for Sweet Corn

- Aatrex (atrazine)
- Micro-Tech (alachlor)
- Dual Magnum (s-metolachlor)
- Outlook (dimethenamid-P)
- Prowl (pendimethalin)
- Eradicane (EPTC)
- Callisto (mesotrione)

Postemergence Herbicides Registered for Sweet Corn

- Weedar 64 (2,4-D)
- Basagran (bentazon)
- Stinger (clopyralid)
- Permit, Sandea (halosulfuron)
- Aim (carfentrazone)
- Starane (fluroxypyr)
- Accent (nicosulfuron)
- Callisto (mesotrione)

Aatrex (atrazine)

1. Restricted Use pesticide (RUP)
2. PRE or POST- grasses and broadleaves
3. 1-2 lb ai/a/yr
4. Maximum of 1 lb before July 1 if rotating crops
5. Broad spectrum of control. Very safe on SWCO
6. Carryover may injure following crops
7. Cost \$2.50-\$5.00/acre

Micro-Tech (alachlor)

1. RUP
2. PRE control grasses, nightshade and nutsedge
3. 2-4 lb ai (2-4 qt)/acre
4. Cost \$12-\$24/acre

Dual Magnum or Dual II Magnum (s-metolachlor)

1. PRE control grasses, some broadleaves, nutsedge
2. 1.2-2 pt (lb)/acre
3. Good control of nightshade, pigweed
4. 4-5 weeks activity
5. Weak on lambsquarters
6. Cost \$15-\$25/acre

**Outlook
(dimethenamid-P)**

1. PRE control of grasses, broadleaves, and nutsedge
2. 12-21 fl oz/a/yr
3. 4-5 weeks control, no carryover
4. Weak on lambsquarters and wild buckwheat
5. Cost \$20-\$30/acre

**Callisto
(mesotrione)**

1. PRE or POST control of most broadleaves
2. 6-7 fl. oz PRE
3. 3 fl. oz POST to corn <30" tall
4. Cost: PRE \$32/acre
POST \$16/acre

**Prowl
(pendimethalin)**

1. Early POST- 24 inch corn. Do not apply PRE
2. Apply with drop nozzles
3. PRE grass and some broadleaf control
4. 1.8-4.8 pt/acre
5. Cost \$6-\$17/acre

**Weedar 64
(2,4-D)**

1. POST broadleaf control
2. Apply before corn is 8 inches tall
3. Some supersweets are sensitive to 2,4-D
4. 1 pt/acre
5. Cost \$1-\$2/acre

**Basagran
(bentazon)**

1. POST broadleaf and nutsedge control
2. Apply when weeds are < 2 inches tall
3. 1.5- 2 pt/acre
4. Cost \$20-\$26/acre

**Permit or Sandea
(halosulfuron)**

1. POST broadleaf and nutsedge control
2. Apply to corn from spike to layby
3. 0.67 oz/acre
4. May cause carryover problem on sensitive crops
5. Cost \$11-\$20/acre

Stinger (clopyralid)

1. POST composites, legumes, nightshade, smartweeds
2. Apply when corn is < 18 inches tall
3. 5.3-10.6 fl oz/acre
4. Cost \$23-\$46/acre

Aim (carfentrazone)

1. POST control of morningglory, lambsquarters, nightshade, pigweed, velvetleaf
2. 0.008 lb (0.5 fl oz)/acre
3. Use with other herbicides
4. Cost \$2-\$4/acre

Starane (fluroxypyr)

1. POST control of broadleaves, volunteer potato, use up to 4 collar corn
2. 11 fl oz/acre
3. Cost: Unknown

Accent (nicosulfuron)

1. POST control of annual grasses, some broadleaves
2. 0.67 oz/acre on corn up to 12" tall; 12-18" corn, use drop nozzles.
3. Cost: \$30/acre

Sweet Corn Weed Control Recommendations for 2007

1. Atrazine .5-1 lb plus Dual Magnum, Micro-Tech, or Outlook PRE
2. Callisto 6 fl. oz after seeding
3. 2,4-D + Aim POST for broadleaf control
4. Permit, Stinger, Basagran, Starane, Accent POST if needed

Potential New Herbicide Registration for Sweet Corn

1. Define PRE
2. Distinct POST
3. Option POST
4. Roundup Ready corn
5. Liberty Link corn