

Weed Management in Strawberries

The strawberry plant is shallow rooted and is a poor competitor against weeds for sunlight (for growth and flower buds), nutrients, and moisture. Weeds can reduce yields up to 40% or more. Harvesting fruit by hand presents a challenge when weeds are present. Where customers pick their own berries, weed-free fields are important for repeated sales and customer satisfaction. A weed control program (see *Weed Management: General Information and Guidelines*, page 172) integrates knowledge of how weeds enter the field (prevention of infestation), cultural control practices, and chemical control (Table 2-4).

Weed Control with Herbicides

Fumigation is recommended when a site is being replanted to strawberries or when there is evidence of nematodes or soil pathogens. Correctly applied, certain fumigants may control most weeds during the establishment year, but cultivation and hand weeding will be required to remove “misses,” and herbicides will be necessary by fall, even if fumigation is used.

Good weed control starts the year before the field is planted to strawberries by eradicating perennial weeds (see the section on *Controlling Weeds Before Planting*, page 178). Identify all weeds in order to select an effective herbicide. (See Table 6-1, *Weed*

Table 2-4. Recommended Herbicides for Strawberries: THE TRANSPLANTING YEAR.		
Weeds	Timing of Treatment^a	Herbicide/Acre
Preemergence		
Annual grasses, some broadleaves	Anytime before or after transplanting.	• Dacthal W-75, 8-12 lb.
Annual grasses, some broadleaves	After adequate number of runners have rooted, or in late fall.	• Devrinol 50WP, 4-8 lb; irrigate within 2-3 days.
Broadleaf weeds, some grasses	After transplanting, but before rooting of runners.	• Sinbar 2-3 oz, followed immediately by rainfall or irrigation equal to 1/2 - 1”.
Winter annual weeds	Late summer/ early fall.	• Sinbar 2-6 oz, followed immediately by rainfall or irrigation equal to 1/2 - 1”.
Postemergence		
Grasses	When grasses are 2-8” tall (before seed head formation).	<ul style="list-style-type: none"> • Fusilade DX, 16-24 oz + 2 pt crop oil concentrate/25 gal. or 1/2 pt nonionic surfactant/25 gal. • Poast 2 pt + 2 pt crop oil concentrate; • Select, 8 oz + 1 quart crop oil concentrate/A; apply no more than 32 oz/season.
Nonselective (kills all)	Before weed growth is 6”. <i>Directed spray only</i> (do not spray strawberry plants).	Gramoxone Extra, 1.5 pt. in 20-60 gal water + non-ionic surfactant. <i>Directed spray only.</i>
Nonselective (kills all)	Late summer-fall (August—mid-September).	Roundup Ultra, 1-3 qt <i>Directed spray or wiper only.</i>
^a Before using, read comments on herbicides in Table 6-2, Small Fruit Herbicides, page 175.		



Susceptibility Table for Small Fruit Herbicides, page 173.) Observe precautions on the label regarding herbicide rates and soil texture and organic matter. Apply herbicides at the appropriate timing or weed stage of growth.

Some mechanical cultivation and hand-hoeing will be required to supplement herbicides used at planting

and will become more important as these herbicides lose their effectiveness, usually about one to two months after planting. Strawberry cultivars differ in their sensitivity to herbicides, especially Sinbar. Always evaluate tolerance of a new cultivar on a small scale, i.e., a few plants or rows, before treating the entire area.

Table 2-5. Recommended Herbicides for: ESTABLISHED STRAWBERRY BEDS.		
Weeds	Timing of Treatment^a	Herbicide/Acre
Preemergence		
Annual grasses, some broadleaves	Late fall or early spring.	• Dacthal W-75, 8-12 lb.
Annual grasses, some broadleaves	Fall or early spring.	• Devrinol 50WP, 4-8 lb; irrigate within 2 to 3 days.
Broadleaf weeds, some grasses	Renovation, before new growth begins.	• Sinbar 4- 8 oz.
	Late fall, just before mulching.	• Sinbar 4-8 oz .
Postemergence		
Dandelions, other broadleaves	Renovation (before mowing).	• 2,4-D (Formula 40) 1-3 pt.
Annual and perennial grasses	When grasses are 2-8" tall, before seed head formation.	• Poast 2 pt + 2 pt crop oil concentrate; • Select, 8 oz + 1 qt crop oil concentrate/A; apply no more than 32 oz/season.
Nonselective (kills all).	When weeds are 6" or less.	• Gramoxone Extra, 1.5 pt in 20 to 60 gal water + non-ionic surfactant.
^a Before using, read comments on herbicides in Table 6-2, Small Fruit Herbicides, on page 175.		



Table 2-6. Herbicide Efficacy Against Common Weeds in Strawberries.						
Herbicides						
Common Weeds	Postemergence			Preemergence		
	Select	2,4-D	Poast	Devrinol	Dacthal	Sinbar
Perennial Grass						
Quackgrass	E	N	G	N	N	P
Bluegrass	G	N	P	N	N	P
Yellow Nutsedge	P	F	N	P	N	F
Perennial Broadleaves						
Dandelion	P	E	N	N	N	F
Clovers	P	E	N	N	N	F
Thistle	P	G	N	N	N	N
Curley Dock	P	G	N	N	N	N
Annual Grasses						
Crabgrass/Foxtails/ Barnyard Grass	E	N	E	E	E	G
Oats or Rye (from mulch)	E	N	E	E	E	G
Annual Broadleaves						
Lambsquarters	P	E	N	F	G	E
Redroot Pigweed	P	E	N	F	G	G
Galinsoga	P	G	N	G	P	G
Yellow Wood Sorrel	P	P	N	P	G	F
Chickweeds	P	F	N	E	G	E
Purslane	P	G	N	G	G	G
Shepherd's Purse	P	G	N	P	P	E
Carpetweed	P	G	N	G	G	G
Horseweed	P	G	N	N	N	G
Common Groundsel	P	F	N	F	P	F
Field Violet	N	P	N	P	G-E	G
E = Excellent; G = Good; F = Fair; P = Poor; N = No Control						



Table 2-7. Observations on Strawberry Cultivar Sensitivity to Sinbar Herbicide.

<p style="text-align: center;">Very Sensitive to Sinbar</p> <p style="text-align: center;">Kent Micmac Bounty Blomidon</p>
<p style="text-align: center;">Sensitive to Sinbar</p> <p style="text-align: center;">Cavendish Glooscap Redchief</p>
<p style="text-align: center;">Moderately Sensitive to Sinbar</p> <p style="text-align: center;">Governor Simcoe Settler Honeoye</p>
<p style="text-align: center;">Slightly Sensitive to Sinbar</p> <p style="text-align: center;">Veestar</p>
<p style="text-align: center;">Not Very Sensitive to Sinbar</p> <p style="text-align: center;">Redcoat Allstar</p>
<p>Source: <i>Ontario Small Fruit Newsletter</i>. Used with permission.</p>

