

Weeds

Cultural Weed Control

Weed control in strawberries is difficult as the crop is not a good competitor and is particularly sensitive to herbicides. The following practices will help reduce weed pressure and lessen hand-weeding costs:

Rotate crops and herbicides to discourage build-up of specific problem weeds. A good rotation program will also minimize disease problems making the crop more vigorous and a better weed competitor.

Control difficult perennial weeds such as quackgrass, thistle and horsetail before planting. See "Preplow Clean Up of Weeds" in the section, [Pest Management](#).

Encourage rapid crop growth and runner development to fill the rows and limit weed germination:

- Delay planting until soils are warm enough to encourage good early growth.
- Fertilize appropriately to encourage good establishment and growth.
- Practice timely post-harvest renovation to encourage rapid regrowth.

Cultivate on a timely basis to control weeds between the rows.

Chemical Weed Control

Herbicide application rates are listed on pesticide labels and in the production guide for broadcast or total field coverage. If spraying a band over the row area only, then the treated area is only a portion of the whole field. For example, when spraying 60 cm bands on rows 120 cm apart, only half of the field is treated.

Always use lower rates of herbicides on sandy or stony soils and the higher rates on heavier or high organic matter soils.

Numerous chemicals are available for weed control. Select a combination of herbicide treatments from the following pages with a knowledge of the major problem weeds in the field. Most treatments are applied to the row area only by sprayers using low pressure (200 to 275 kPa) and a spray volume of 300 to 500 L/ha (120 to 200 L/acre).

Preplant		
Treflan EC or Bon- anza 480 (480 g/L tri- fluralin)	1.7 L/ha (0.68 L/acre) on light soils	<ul style="list-style-type: none"> ● Apply to well-prepared soils shortly before planting. ● Incorporate immediately by rototilling or double discing to a depth of 8 to 10 cm (3 to 4 in). A second pass at right angles to the first provides best incorporation. ● Do not use on soils with greater than 15% organic matter (peat, muck or heavily manured fields). Provides residual control of germinating
	2.3 L/ha (0.92 L/acre) on medium to heavy soils	

<p>Rival 500 EC (500 g/L trifluralin)</p>	<p>1.2 L/ha (0.5 L/acre) on light soils</p> <p>1.6 L/ha (0.65 L/acre) on medium, silty or sandy clay loam soils</p> <p>2.2 L/ha (0.9 L/ac) on heavy soils</p>	<p>weeds such as annual bluegrass, barnyard grass, crabgrass, pigweed, lamb's quarters, chickweed, knotweed and purslane</p> <ul style="list-style-type: none"> • Nightshades, shepherd's-purse, mustards, groundsel, lady's thumb and cudweed are resistant.
<p>Dual Magnum or Dual II Magnum (915 g/L S-metolachlor and R-enantiomer)</p>	<p>1.25 to 1.75 L/ha (0.5 to 0.7 L/acre)</p>	<ul style="list-style-type: none"> • Apply to well prepared soil and thoroughly incorporate before planting. • Controls annual grasses, nightshade, suppresses redroot pigweed and yellow nutsedge. • Some initial injury may occur, some varieties may be particularly sensitive. • Do not apply to fields to be harvested in the year of planting. • Apply only once per year.

<p>Year of Planting</p>		
<p>Annual Grasses and Broadleaf Weed</p>		
<p>Princep Nine-T (simazine)</p> <p>Simadex 500F</p>	<p>1.1 kg/ha (0.4 kg/acre)</p> <p>2.2 L/ha (0.9 L/acre)</p>	<ul style="list-style-type: none"> • Apply after mid-September when runners are well rooted. • Apply in a minimum of 300 L/ha (120 L/acre) of water. • Controls many annual grassy and broad leaf weeds including barnyard grass, millets, lady's thumb and wild buckwheat. • For use in coastal BC only. Do not use in BC Interior. • Apply to firm weed-free soil and follow with light irrigation if rain does not occur shortly after application. Triazine-tolerant weeds such as groundsel and pigweed are not controlled.

Devrinol 50 DF or Devrinol DF-XT (napropamide)	9 kg/ha (3.6 kg/acre)	<ul style="list-style-type: none"> ● Delay application until desired number of daughter plants have established. ● Apply only to mineral soils with less than 10% organic matter. ● If rain fall does not occur within 7 days (spring or fall application) or 2 days (summer application) irrigate to wet soil to a depth of 5 to 10cm. ● Controls many annual grassy and broadleaf weeds including barnyard grass, millets, lamb's quarters, redroot pigweed, chickweed and mustards. ● Do not apply more than once per season.
Devrinol 50 DF (napropamide) plus Princep Nine-T (simazine)	3.0 to 4.0 kg/ha (1.2 to 1.6 kg/acre) 0.6 to 0.83 kg/ha (250 to 340 g/acre)	<ul style="list-style-type: none"> ● Apply 1 to 2 weeks after transplanting but prior to weed emergence. ● Ensure that plants are properly set and covered with soil. ● Make only one application per year. ● Controls barnyard grass, redroot pigweed, chickweed and mustards. ● Rain or irrigation is required shortly after application.
Sinbar 80 WP (terbacil)	275 to 550 g/ha (110 to 220 g/acre)	<ul style="list-style-type: none"> ● Apply after mother plants are well established but before new runners start to root. ● Use the lower rate on sandy soil to prevent injury. ● Use the lower rate on varieties which have not been tested for Sinbar sensitivity. ● Moisture is required to activate Sinbar. ● Do not replant to any crop within two years after last application. ● Controls many annual grassy and broadleaf weeds including barnyard grass, millets, lamb's quarters, redroot pigweed, chickweed and mustards.
Dual Magnum or Dual II Magnum (S-metolachlor)	1.25 to 1.75 L/ha (0.5 to 0.7 L/acre)	<ul style="list-style-type: none"> ● Apply after planting before weeds emerge. ● Will control annual grasses, nutsedge, nightshade and provide suppression of redroot pigweed.

and R-enantiomer)		<ul style="list-style-type: none"> Some initial injury may occur, some varieties may be particularly sensitive. Do not apply to fields to be harvested in the year of planting. Apply only once per year.
Betamix EC (153 g/L phen-medipham, 153 g/L desmedipham)	1.15 to 1.75 L/ha (0.46 to 0.7 L/ha)	<ul style="list-style-type: none"> Apply as a broadcast spray in 100 to 200 L/ha water (40 to 80 L/acre) after transplanting when weeds have reached the cotyledon stage. Repeat applications at 5 to 7 day intervals or when another flush of weeds germinates. Do not apply more than 3 times per season. Use on June-bearing strawberries in the year of planting only. Do not harvest berries in the year of planting. Strawberry varieties may vary in tolerance to Betamix. Limit initial application to a small area to confirm tolerance. Betamix may cause temporary chlorosis or tip burn, but normal growth should return in 7 to 21 days.
Annual Grasses and Quackgrass		
Venture (fluazifop-p-butyl)	0.8 to 2.0 L/ha (0.32 to 0.8 L/acre)	<ul style="list-style-type: none"> Apply in spring before bloom. Apply only once per year. Use the low rates for seedling grasses in the 2 to 5 leaf stage and the highest rate for quackgrass in the 3 to 5 leaf stage. Apply in 50 to 200 L/ha of water. Use the higher volume when weed density is high. Do not apply within 30 days of harvest. Warning: Women capable of bearing children should avoid exposure to Fusilade II. Read label for more information.
Poast Ultra (sethoxydim)	0.47 to 1.1 L/ha (200 to 440 mL/acre)	<ul style="list-style-type: none"> Apply at the 1-6 leaf stage of annual grasses and to actively growing quackgrass that has 1-6 leaves. Use the high rate for quackgrass control. Apply with the adjuvant, Merge, at a rate of 1% of water volume used.

- Do not apply within 25 days of harvest.

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Mature Plantings

Annual Grasses and Broadleaf Weeds

Princep Nine-T (90% simazine) Simadex 500 500 g/L simazine)	1.1 kg/ha (400 g/acre) 3.6 L/ha (1.45 L/acre)	<ul style="list-style-type: none"> • Apply post harvest at renovation. Alternatively, a spray may be applied in mid September to provide overwinter weed control. • Do not apply before harvest. • Do not apply more than once per season. • See comments under “New Plantings” on previous pages.
Devrinol 50 DF (50% napropamide)	9.0 kg/ha (3.6 kg/acre)	<ul style="list-style-type: none"> • Apply in fall or early spring before weeds emerge. Do not apply from bloom to harvest. • See comments under “New Plantings” on previous pages.
Sinbar 80 WP (80% terbacil)	700 to 850 g/ha (280 to 340 g/acre)	<ul style="list-style-type: none"> • Apply after harvest for residual control of seedling weeds. Reduce rate to 550 to 700 g/ha (220 to 280 g/acre) in areas subject to periodic winter injury. • See comments under “New Plantings” on previous pages.
Chateau WDG (51.1% flumioxazin)	210 g/ha (84 g/acre)	<ul style="list-style-type: none"> • Apply in enough water to ensure good coverage of the soil surface. • Over the row applications must be made to dormant strawberries. For non-dormant strawberries, applications must be made to row middles only, using a hooded or shielded sprayer. • At least 0.5 cm of rainfall or irrigation is necessary to activate the herbicide. • Apply only to coarse and medium textured soils with less than 5% organic matter. Do not apply to fine-textured soils or to soils with more than 5% organic matter.

		<ul style="list-style-type: none"> ● Apply to well-drained soil as crop injury may occur from applications made to poorly drained soils and/or under cool, wet conditions. ● Do not allow spray drift to come in contact with fruit or foliage. ● Do not apply more than once per growing season. ● Do not apply after fruit set.
Kerb 50 WSP (50% propyzamide)	2.25 kg/ha (0.9 kg/acre)	<ul style="list-style-type: none"> ● Apply from late September to early November when soil temperatures are low and soil moisture is high. ● Chickweed and seedling grasses will be controlled. Dandelion, dock and many other broadleaved weeds will not be controlled. ● Apply in 300 to 500 L/ha (120 to 200 L/acre) of water to obtain even soil coverage.
Goal 2XL (240 g/L oxyfluorfen)	1.0 L/ha (400 mL/acre)	<ul style="list-style-type: none"> ● Apply a single spray in 500 L/ha (200 L/acre) of water to dormant plants in late fall or early winter. ● Will control or suppress a range of broadleaf winter annuals. ● Do not apply within 150 days of harvest.
Authority (480 g/L sulfentrazone)	0.29 L/ha (0.12 L/acre)	<ul style="list-style-type: none"> ● Apply as a broadcast spray or as a banded treatment. ● Apply a single spray in 200 to 400 L/ha (80 to 160 L/acre) of water to dormant plants in late fall. Spring applications may be made during dormancy to established plantings only. ● Do not apply within 70 days of harvest. ● Do not use flood irrigation to activate this product. ● Do not apply to saturated soils. When soils are wet, do not apply if heavy rainfall is expected within 24 hours. ● Do not apply to frozen soils ● Applications to strawberry plants with emerged growth are not recommended due to leaf burning and possible stand loss
Dual Magnum or Dual II Magnum (S-	1.25 to 1.75 L/ha (0.5 to 0.7 L/acre)	<ul style="list-style-type: none"> ● Apply in early spring before weeds emerge.

metolachlor and R-enantiomer)		<ul style="list-style-type: none"> ● Will control annual grasses, nutsedge, nightshade and provide suppression of redroot pigweed. ● some varieties may be particularly sensitive to Dual ● Apply only once per year. ● Do not apply within 30 days of harvest
Annual Grasses and Quackgrass		
Venture (125 g/L fluazifop-p-butyl)	0.8 to 2.0 L/ha (0.32 to 0.8 L/acre)	<ul style="list-style-type: none"> ● See comments under “New Plantings” on previous pages. ● Do not apply within 30 days of harvest.
Poast Ultra (450 g/L sethoxydim)	0.47 to 1.1 L/ha (200 to 440 mL/acre)	<ul style="list-style-type: none"> ● See comments under “New Plantings” on previous pages ● Do not apply within 25 days of harvest.
Perennial Broadleaf Weeds		
Lontrel 360 (clopyralid)	560 to 830 ml/ha (225 to 330 ml/acre)	<ul style="list-style-type: none"> ● Apply immediately after harvest but before mowing. Do not apply after mid-August as crop damage to the following years’ crop could result. ● Apply in 150 to 200 L/ha of water. Use the higher volume when weed density is high. ● Use the low rate for tufted vetch and season long control of Canada thistle. Use the high rate for sheep sorrel, oxeye daisy and longer term control of Canada thistle. Other weeds controlled include scentless chamomile, alsike, red and white clover, wild buckwheat, groundsel and sow thistle. It is not effective against chickweed and shepherd’s purse. ● Wait 7-10 days after application before mowing. ● Apply only once per year.
Annual Weeds (Between the row only)		
Aim EC (240 g/L carfentrazone-ethyl)	37 to 117 mL/ha (15 to 47 mL/acre)	<ul style="list-style-type: none"> ● Apply between the rows with a hooded sprayer to emerged weeds. Crop injury will occur if drift is allowed to come in contact with green stem tissue, leaves, blooms or fruit.

		<ul style="list-style-type: none"> ● To improve control, apply with surfactants such as Agral 90 or Ag-Surf at 0.25% (0.25 L/100 L of water) or Merge at 1% (1 L/100 L of water). ● Do not apply within 1 day of harvest
Gramoxone (200 g/L paraquat)	5.5 L/ha (2.2 L/acre)	<ul style="list-style-type: none"> ● Apply with wetting agent in 550 to 1100 L of water/ha (220 to 440 L/acre). ● Apply only between the rows and use shields to keep spray off desired strawberry plants. ● In renovated plantings, 2 applications may be required – one just after harvest and one in the fall.

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