

# Weed Management in Highbush Blueberries

Blueberry root systems are shallow and lack root hairs; this puts them at a disadvantage when competing for water and nutrients. Thus, good weed control is essential if optimum growth and yields are to be realized.

Eradicate perennials and reduce the annual weed seed bank one to two years before planting by following the instructions in the section on *Controlling Weeds Before Planting* (page 178). Use herbicides and cultivation in rotational grain crops to reduce the number of weed seeds. In late summer, establish the raised bed, incorporate amendments, and plant a ground cover (such as K-31 fescue) over the entire field. In early spring, kill the sod on the raised bed with Roundup and plant 8 to 10 days later. For a complete discussion of methods used in a weed-control program, see *Weed Management: General Information and Guidelines*, (page 172).

A permanent sod between the rows is effective in controlling weeds in establishing plantings. Within-row weeds can then be controlled with appropriate herbicides. Recommendations for controlling the wide range of weeds that are found in blueberries are presented here.

Herbicides can injure newly transplanted blueberries. Use recommended herbicides carefully and follow the label (see Table 4-3). Preemergence herbicides such as Devrinol and Surflan can be used in the row within five to seven days after planting and can be applied over the plant without damage to the plant if the soil has settled around the roots. Postemergence herbicide sprays can be directed to low-growing weeds without contacting leaves or stems of the crop. Fall-applied preemergence herbicides can be applied to control grasses and winter annuals.

For established plantings, preemergence herbicides are applied in either fall or early spring to weed-free soil (see Table 4-4). Combinations of two herbicides improve the spectrum of weeds controlled. For

<b>Table 4-3. Recommended Herbicides for Blueberries: THE TRANSPLANTING YEAR.</b>		
<b>Weeds</b>	<b>Timing of Treatment<sup>a</sup></b>	<b>Herbicide/Acre</b>
<b>Preemergence</b>		
Grasses and broadleaf weeds	At transplanting.	• Solicam DF, 2.5 lb.
Grasses	At transplanting.	• Devrinol 50WP, 4 lb.
Annual broadleaf weeds	Early spring or fall.	• Princep 80WP, 2.5 lb.
Some perennials, grasses, broadleaf weeds	Fall after transplanting.	• Casoron 4G, 100-150 lb.
<b>Postemergent</b>		
Grasses	When grasses are 2 to 8" tall prior to seed head.	• Poast 2 pt + 2 pt crop oil concentrate; • Fusilade DX, 16-24 oz + 2 pt crop oil concentrate/25 gal or 1/2 pt nonionic surfactant/25 gal.
Emerged Weeds	Fall (mid-September).	• Roundup, 1-3 qt. <i>Directed spray only.</i>
Emerged Weeds	When new weeds are present.	• Gramoxone Extra, 2-3 pt. <i>Directed spray only.</i>



<b>Table 4-4. Recommended Herbicides: FOR ESTABLISHED BLUEBERRY PLANTINGS.</b>		
<b>Weeds</b>	<b>Timing of Treatment<sup>a</sup></b>	<b>Herbicide</b>
<b>Preemergence</b>		
Annual broadleaves, grasses	Fall to early spring.	• Princep 80W, 2.5-5 lb. in 40 gal. water.
Annual grasses, some broadleaves	Late fall to early spring; before weed seeds germinate.	• Devrinol 50WP, 4 to 6 lb in 20 to 50 gal. water.
Some perennials, annual grasses, some broadleaves	Late fall or early spring, soil temperature must be below 50°F.	• Casoron 4G, 100-150 lb.
Annual broadleaf grasses, weeds	Fall to early spring.	• Karmex 80W, 2-3 lb. in 25-40 gal. water.
Broadleaves, some perennials	Early spring or in fall after harvest; preemergence or early stages of growth.	• Sinbar, 2-3 lb in minimum 40 gal water. <i>Directed spray only.</i>
Grasses, some broadleaves	Early spring; over weed-free surface.	• Surflan AS, 2-6 qt. in 20-40 gal water.
Grasses and broadleaf weeds	Fall-early spring.	• Solicam DF, 2.5-5 lb.
Grasses, chickweed	Fall-early winter.	• Kerb 50W, 2-4 lb.
<b>Postemergent</b>		
Grasses	When grasses are 2 to 8" tall prior to seed head.	• Poast 2 pt + 2 pt crop oil concentrate.
Emerged weeds	When new weeds are present.	• Gramoxone Extra, 2-3 pts. <i>Directed spray only.</i>
Emerged weeds	Fall	• Roundup, 1-3 qt. <i>Directed spray only.</i>
<sup>a</sup> Before using, read comments on herbicides in Table 6-2, Small Fruit Herbicides, page 175.		

instance, on soils with less than 2% organic matter, Surflan plus Karmex is recommended. With 2% or more organic matter, Sinbar plus Karmex or Princep plus Karmex can be used. Where annual grasses are actively growing, consider applying a systemic grass herbicide prior to or tank-mixed with Surflan to provide immediate and residual control. Check for compatibility before tank mixing. Kerb can be used when soil temperatures are below 50°F. Split applications of Princep in the fall and early spring have shown good results.

Most spring-applied preemergence herbicides lose effectiveness by August, especially where irrigation is heavily used. Directed contact herbicides may be used

to control these late-summer weeds. Weed growth in September may remove excess nitrogen and water and aid in acclimation. An alternative approach that has been used by many growers is to apply sequential micro-rates of soil-active herbicides. Micro-rates are below-label rates of either Sinbar or Princep. For instance, Sinbar is labeled at 2 to 3 lb/acre, yet provides excellent control of annual broadleaf weeds at 1/2 lb/acre. Two or three sequential applications may be needed to control weeds all summer at these rates, provided the cumulative amount of herbicide applied does not exceed the label rate. Do not apply within the pre-harvest interval. Because only the area under the blueberry row is treated, always remember to calculate the amount of row area per acre and apply herbicides at a per-treated-acre rate.

