

2024 PEST MANAGEMENT GUIDE: WEEDS

Cultural Weed Management

Why culturally manage weeds? To increase yield and reduce pesticide exposure to off-target organisms, such as bees.

Weeds Compete with Wild Blueberry for:

- Water
- Light
- Nutrients

The method for controlling one weed may encourage another. A combination of careful ID and monitoring of the weed situation in a field, with cultural management and the wise use of herbicides (only when critical) forms the basis of a sound weed management program.

THERE IS NO QUICK FIX. One method will not control all weeds.

CULTURAL WEED MANAGEMENT FOR WILD BLUEBERRY		
WEEDS MANAGED	METHOD	COMMENTS
Most weeds, especially grasses	Test soil for pH and reduce with sulfur if above 4.0	Add fertilizer only if leaf analysis indicates a deficiency. Maintain soil pH at 4.0.
Most weeds except grasses	Hand pulling	Effective against spot infestations. Pull before any weed flowers go to seed.
Weeds spread by seed or vegetative parts carried on equipment, especially mechanical harvesters	Field sanitation	Steam clean and inspect equipment before entering a field.
Bracken fern, sweet fern, dogbane, seedling or sprouting trees, flowering weeds	Mowing above blueberry plants	Most successful if done during the vegetative year. Cut flowers off before they go to seed.
Coniferous trees, some weeds spread by seed	Fire pruning	When burning with straw or hay, use weed-free material.
Weeds that form crowns at or above ground level	Cut or mow woody weeds three times in the non-crop year	Mow or cut plants to ground level.
Some weeds spread by seed	Mulching on bare spots	Apply mulch 2" to 4" deep. Use one of the following: bark, woodchips, shavings, sawdust, peat, or sand.

Chemical Weed Management

THIS CHART IS NOT A SUBSTITUTE FOR READING AND FOLLOWING THE LABEL. It is unlawful to use any pesticide for other than the registered use. Read and follow the label on the product container. The user assumes all responsibility for use inconsistent with the label. Trade names are used for identification. No product endorsement is implied, nor is discrimination intended against similar materials. Cooperative Extension makes no warranty or guarantee of any kind concerning the use of these products. Check with your processor regarding PHI restrictions or MRL restrictions for export sales. Please note: This revised version replaces any previous charts.

Extremely toxic to fish	Extremely toxic to bees	Extremely toxic to birds	Extremely toxic to people
Moderately toxic to fish	Moderately toxic to bees	Moderately toxic to birds	Moderately toxic to people

HERBICIDES WITH ENVIRONMENTAL PERSISTENCE¹

GROUP ²	USE & TOXICITY	HERBICIDE	ACTIVE INGREDIENT & SIGNAL	TIMING: CROP CYCLE & WEED EMERG. (PRE OR POST)	RATE: PER/ACRE & MAX/ACRE/YR	PHI DAYS	REI HOURS	NOTES
1	GRASSES	Arrow 2 EC Intensity One Tide USA Clethodim 2E and others	clethodim	CAUTION	PRUNE EARLY CROP	45	24	*Read label for rate, use higher rates for perennial grasses. Arrow & Clethodim: add 0.25% v/v NIS in 5 to 40 GPA water. Intensity One: add 0.25% v/v NIS, no COC (not listed in crop-specific table) in 5 to 40 GPA water. Apply as broadcast spray minimum 30 psi. (all) Spot Treatment: Treat until wet but do not allow runoff. Caution: Tank mixing with certain post-emergence broadleaf herbicides may reduce grass control. Do not use if rainfall expected in 1 hour. Human & Environment: Arrow 2 EC: High aspiration toxicity. Intensity One & Clethodim 2E: Moderate eye toxicity. MP, S
		Select Max		CAUTION	PRUNE EARLY CROP	45	24	*Add NIS 0.25% v/v in 5-40 GPA water. **Add NIS at 0.33 oz/gal water. Spot Treatment: Treat until wet but do not allow runoff. Caution: Do not apply when grass is stressed. Do not apply post-emergence broadleaf herbicides within 1 day of application. Do not use if rainfall expected in 1 hour. Human & Environment: High toxicity for aspiration, skin, mutagenicity and carcinogenicity. MP, S
		Fusilade DX	fluazifop-P butyl	CAUTION	PRUNE CROP *POST-HARVEST*	305	12	*Add 0.25-0.5% v/v NIS in 5-40 GPA water. Application: Apply in the interspaces and around the base of plants while avoiding contact of spray with plants. Caution: Do not use if grass is drought-stressed or if rainfall is expected within one hour. Crop injury: Injury may occur if other herbicides are applied within 5 days, also reducing control efficacy. Human & Environment: High aspiration toxicity. MP, S
		Poast	sethoxydim	WARNING	PRUNE EARLY CROP	30	12	*Add 2 pints/acre COC in 5 to 20 gallons water per acre. Minimum 40 PSI. **Add 1.3 oz COC/1 gal water. Must add crop oil concentrate (COC) or surfactant. Caution: Do not apply when grass is drought stressed. Human & Environment: High aspiration toxicity. MP, S
2	BROADLEAF, GRASSES & SEDGES	Sandea (24c label expires 12/31/27)	halosulfuron-methyl	CAUTION	PRUNE PRE	14	12	Mixing Apply in minimum 20 gallons water per acre. Do not apply by rope-wick wiper. Applications: Should be made 1 to 2 months prior to breaking dormancy in the spring. Caution: Phytotoxicity may occur with overlapping boom swaths (overapplication). Do not apply when frost is present or where soil is saturated. Do not apply in areas where water ponds after significant rainfall. Do not apply to plants that have progressed into budbreak. Do not apply to plants under stress or less than one year of age. Human & Environment: LP, S
3	RESISTANT GRASSES	Kerb SC	pronamide	CAUTION	PRUNE OR CROP *POST-HARVEST*	See notes	24	May only be applied in fall/winter of either year (before ground-freeze or snow). Rate depends on the weed species present (see label). Field Conditions: Most effective in soil with <4% OM and when temperature is <55°F. Activation: Rain/snowmelt is required to move into root zone. PHI: There is no specific PHI for lowbush listed. PHI ranges from 25 – 60 days. Human & Environment: Acute inhalation toxicity, moderate carcinogenicity. HP, S
5	GRASS & BROADLEAF	Velpar DF CU	hexazinone	DANGER	PRUNE PRE	450	48	Apply in spring of prune year pre-emergence; only apply once per year. May be impregnated on fertilizer. Field Conditions: Use lower rates on poorly drained soil and steep slopes. Use higher rates on heavier soil or soils high in organic matter. Activation: Moisture required within 2 weeks of treatment; high temps and humidity help. Caution: Maintain a 50-foot buffer from any well head or water reservoir and do not apply to frozen or flooded fields. Do not apply through an irrigation system. Avoid contact with blueberry plants. Human & Environment: Highly toxic to eyes. HP, S
		Sinbar WDG (See label for fertilizer)	terbacil	CAUTION	PRUNE CROP *POST-HARVEST*	See Notes	12	Apply preemergence in prune year or in crop year after harvest. Field Condition: Use higher rate on heavy soil or soils high in OM. May be impregnated on fertilizer (See 2ee label). Activation: Moisture required. Caution: Do not use on soil with <1 % organic matter, in sand or loamy sand with <3% OM, or where roots are exposed. Avoid contact with blueberry plants. Do not apply to drought-stressed plants. PHI: There is no specific PHI for lowbush listed, only PHI listed is for watermelon which is 70 days. Human & Environment: HP, S
		Direx 4L Diuron 4L	diuron	CAUTION	PRUNE PRE	NA	12	Apply in late spring of prune year preemergence. Activation: Moisture required within 2 weeks of treatment. Caution: Do not use on soils with <2% organic matter or on foliage or exposed roots. Do not use near fruit trees. Human & Environment: Acute toxicity - Oral, HP, S
9	RESISTANT GRASS & BROADLEAF	Multiple formulations	glyphosate	CAUTION	PRUNE CROP	14	4	Use rate based on 41-49%, adjust accordingly. Add 1- 2% w/w spray grade AMS to increase efficacy on woody weeds only. See labels for surfactant guidelines; do not use surfactant for wiper applications. Caution: Non-selective: will kill all actively growing plants. Avoid contact with blueberries. Human & Environment: LP, S
		Matrix SG	rimsulfuron	CAUTION	PRUNE POST	21	4	Pre-emergence: Broadcast before bud break. Early post-emergence: Directed spray while avoiding contact with blueberry plants. Field Conditions: Do not use on soils with >6% OM. Solida: Rainfall or irrigation needed within 2 weeks of application to activate herbicide in the soil, most effective within 5 to 7 days. Caution: Post-emergence spray may result in temporary chlorosis or stunting. Do not use on frozen/snow covered soil, soils classified as sand. Human & Environment: LP, S
		Rely 280	glufosinate	WARNING	PRUNE POST	14	12	Foliar-active only. Apply pre-blueberry emergence. Field Conditions: Apply on a warm, sunny humid day. Add to spray tank last; may require an antifoam agent. Do not apply to blueberry plants. Do not apply through irrigation system. Human & Environment: Highly toxic for skin and reproduction. LP, S
		Zeus Prime XC	carfentrazone & sulfentrazone	CAUTION	PRUNE PRE	3	12	Apply in prune year before blueberry emergence. Field Conditions: Availability decreases with finer soils and increases with higher pH; do not apply on sand with <1% OM. Activation: Ideally apply to moist soil with 1/2-1" rainfall/irrigation within 2 weeks of application. Caution: Do not tank mix with flumioxazin or other products containing sulfentrazone. Human & Environment: Moderate toxicity for liver; carcinogenic. MP, S
27	ANNUAL BROADLEAF	Callisto (crop yr 24c label expires 12/31/27)	mesotrione	CAUTION	PRUNE EARLY CROP*	60	12	*Only Callisto has a 24c label allowing use in the crop year. Post-emergence Applications: Must be made before weeds reach 5" in height. To increase efficacy: Add COC (1% v/v). Add 8.5 lbs AMS/100-gal water. Crop Injury: May occur in dry conditions or over 85°F. See 24c label for revised prune year/crop year application. Human & Environment: avoid repeated exposure. MP, S
		Explorer; Mesotrione 4SC			PRUNE POST	NA	12	

Prepared by Lily Calderwood, Extension Wild Blueberry Specialist, and Jordan Parks, Research Assistant. The University of Maine, Orono, ME 04469. January 2024.

PLEASE NOTE: THIS REVISED VERSION REPLACES ANY PREVIOUS CHARTS.

¹ Environmental persistence rankings were estimated using a combination of soil and hydrologic persistence, PHI, and REI. LP = low persistence, MP = moderate persistence, HP = high persistence. S = systemic, NS = not systemic

² Group Number: To reduce the likelihood of herbicide resistance developing in target weeds, growers should rotate between herbicides with different group numbers in the growing season, ideally using multiple group numbers. Products with the same group number should not be used in consecutive sprays.

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