

# 2025 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 - 4.5.
Most weeds <b>except</b> grasses	Hand pulling	Effective against spot infestations. Pull <b>before</b> any weed flowers go to seed.
Weeds spread by seed or vegetative parts carried on equipment, especially mechanical harvesters	Field sanitation	Power wash or 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 <b>before</b> 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 to weed patches. <b>Use one of the following:</b> softwood 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
- Can be aerially applied

### HERBICIDES WITH ENVIRONMENTAL PERSISTENCE<sup>1</sup>

GROUP <sup>2</sup> USE & TOXICITY	AERIAL APPLICATION	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	POST	Broadcast*: 4 to 8 oz. Arrow & Clethodim 2E no NIS spot: 0.33 to 0.65 oz /1 gal-water. Arrow & Clethodim 2E NIS spot: Add 0.33 oz/1 gal-water NIS Intensity One no NIS spot: 0.44 to 0.85 oz/1 gal-water <b>Arrow &amp; Clethodim 2E max:</b> 32 oz (0.5 lb ai); 8 oz per app (at least 14 days apart), 4 apps per year. <b>Intensity One max:</b> 16 oz per app (at least 14 days apart), 4 apps, 64.0 fl oz/A (0.485 lb ai/A) per year	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) <b>Spot Treatment:</b> Treat until wet but do not allow runoff. <b>Caution:</b> Tank mixing with certain post-emergence broadleaf herbicides may reduce grass control. Do not use if rainfall expected in 1 hour. <b>Human &amp; Environment:</b> Arrow 2 EC: <b>High aspiration toxicity.</b> Intensity One & Clethodim 2E: <b>Moderate eye toxicity. MP, S</b>
		EARLY CROP								
		Select Max	clethodim	CAUTION	PRUNE	POST	Broadcast*: annual 9 to 16 oz, perennial 12 to 16 oz Spot***: 0.44 to 0.85 oz /1 gal-water. <b>Max:</b> 64 oz (0.485 lb ai); 16 oz per app (at least 14 days apart), 4 apps/yr.	45	24	*Add NIS 0.25% v/v in 5-40 GPA water. **Add NIS at 0.33 oz/gal water. <b>Spot Treatment:</b> Treat until wet but do not allow runoff. <b>Caution:</b> 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. <b>Human &amp; Environment:</b> <b>High toxicity for aspiration, skin, mutagenicity and carcinogenicity. MP, S</b>
		EARLY CROP								
Fusilade DX	fluazifop-P butyl	CAUTION	PRUNE	POST	Broadcast*: 8 to 24 oz Spot*: 0.75 oz./1 gal- water <b>Max:</b> 2 app of 24 oz/app (at least 14 days apart); Total 48 oz (0.75 lb ai)	305	12	*Add 0.25-0.5% v/v NIS or 0.5-1% v/v COC in 5-40 GPA water. <b>Application:</b> Apply in the interspaces and around the base of plants while avoiding contact of spray with plants. <b>Caution:</b> Do not use if grass is drought-stressed or if rainfall is expected within one hour. <b>Crop injury:</b> Injury may occur if other herbicides are applied within 5 days, also reducing control efficacy. <b>Human &amp; Environment:</b> <b>High aspiration toxicity. MP, S</b>		
CROP *POST- HARVEST*										
Poast	sethoxydim	WARNING	PRUNE	POST	Broadcast*: 1.0 to 2.5 pints Spot***: 1.3 oz (1.0%) or 1.9 oz (1.5%) and 1.3 oz COC/MO in 1 gal water <b>Max:</b> 5 pints; 2 apps/yr of 2.5 pints/app (at least 14 days apart)	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. <b>Must add crop oil concentrate (COC) or surfactant.</b> <b>Caution:</b> Do not apply when grass is drought stressed. <b>Human &amp; Environment:</b> <b>High aspiration toxicity. MP, S</b>		
EARLY CROP										
2	BROADLEAF, GRASSES & SEDGES	Sandea (24c label expires 12/31/27)	halosulfuron-methyl	CAUTION	PRUNE	PRE	0.5 oz to 1 oz per acre <b>Max:</b> 1 oz (0.047 lb a.)/yr	14	12	<b>Mixing</b> Apply in minimum 20 gallons water per acre. <b>Do not apply</b> by rope-wick wiper. <b>Applications:</b> Should be made 1 to 2 months prior to breaking dormancy in the spring. <b>Caution:</b> Phytotoxicity may occur with overlapping boom swaths (overapplication). Do not apply when frost is present or where soil is saturated. Do not apply to water saturated soils. Do not apply to areas where water is known to pond for periods of time following 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. <b>Human &amp; Environment:</b> <b>LP, S</b>
		NO								
3	RESISTANT GRASSES	Kerb SC	pronamide	CAUTION	PRUNE OR CROP *POST- HARVEST*	PRE	2.5 to 5 pints per acre <b>Max:</b> 1 app/5 pt (2 lb ai)/yr	See notes	24	<b>May only be applied in fall/winter of either year (before ground-freeze or snow). Rate depends on the weed species present (see label). Mix specified amount into 20 to 50 GPA water and apply at a low pressure. Field Conditions:</b> Most effective in soil with <4% OM and when temperature is <55°F. <b>Activation:</b> Rain/snowmelt is required to move into root zone. <b>PHI:</b> There is no specific PHI for lowbush listed. PHI ranges from 25 – 60 days. <b>Human &amp; Environment:</b> <b>Acute inhalation toxicity, moderate carcinogenicity. HP, S</b>
					POST					
5	GRASS & BROADLEAF	Velpar DF CU	hexazinone	DANGER	PRUNE	PRE	1.2 to 3.6 lb, min 20 GPA <b>Max:</b> 2.4 lb if treated with hex. in past 8 yrs	450	48	Apply in spring of prune year pre-emergence; only apply once per year. May be impregnated on fertilizer. <b>Field Conditions:</b> Use lower rates on poorly drained soil and steep slopes. Use higher rates on heavier soil or soils high in organic matter. <b>Activation:</b> Moisture required within 2 weeks of treatment; high temps and humidity help. <b>Caution:</b> 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. <b>Human &amp; Environment:</b> <b>Highly toxic to eyes. HP, S</b>
		NO								
7	GRASS & BROADLEAF	Sinbar WDG (See label for fertilizer)	terbacil	CAUTION	PRUNE	PRE	2 to 3 lb, min 20 GPA <b>Max:</b> 3 lb/yr	See Notes	12	Apply preemergence in prune year or in crop year after harvest. <b>Field Condition:</b> Use higher rate on heavy soil or soils high in OM. May be impregnated on fertilizer (See 2ee label). <b>Activation:</b> Moisture required. <b>Caution:</b> 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. <b>PHI:</b> There is no specific PHI for lowbush listed, only PHI listed is for watermelon which is 70 days. <b>Human &amp; Environment:</b> <b>HP, S</b>
		NO								
7	GRASS & BROADLEAF	Direx 4L Diuron 4L	diuron	CAUTION	PRUNE	PRE	1.6 qt per acre <b>Max:</b> --	NA	12	Apply in late spring of prune year preemergence. <b>Activation:</b> Moisture required within 2 weeks of treatment. <b>Caution:</b> Do not use on soils with <2% organic matter or on foliage or exposed roots. Do not use near fruit trees. <b>Human &amp; Environment:</b> <b>Acute toxicity - Oral, HP, S</b>
		NO								
9	RESISTANT GRASS & BROADLEAF	Depends on Formulation Multiple formulations	glyphosate	CAUTION	PRUNE	POST	Wiper: Sponge 10% v/v herb, 20% woody; Rope/wick-33% v/v. Directed spray: 2% v/v <b>Max:</b> 6 lb a.e. for all formulations (see label)	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. <b>Caution: Non-selective: will kill all actively growing plants.</b> Avoid contact with blueberries. <b>Human &amp; Environment:</b> <b>LP, S</b>
		NO								
9	RESISTANT GRASS & BROADLEAF	Matrix SG	rimsulfuron	CAUTION	PRUNE	PRE	4 oz/acre <b>Max:</b> 1 app of 4 oz/year (0.0625 lb ai) For spray: use NIS 0.125-0.25% v/v or COC 1% v/v Matrix: most effective at spray tank solution pH of 5 to 7; max 1 broadcast/yr or 2 band apps/yr	21	4	<b>Pre-emergence:</b> Broadcast before bud break. <b>Early post-emergence:</b> Directed spray while avoiding contact with blueberry plants. <b>Field Conditions:</b> Do not use on soils with >6% OM. <b>Soil:</b> Rainfall or irrigation needed within 2 weeks of application to activate herbicide in the soil, most effective within 5 to 7 days. <b>Caution:</b> Post-emergence spray may result in temporary chlorosis or stunting. Do not use on frozen/snow covered soil, soils classified as sand. <b>Human &amp; Environment:</b> <b>LP, S</b>
		NO								
10	GRASS & BROADLEAF	Rely 280	glufosinate	WARNING	PRUNE	POST	Broadcast: 48 oz/acre Spot: 1.7 oz in 1 gal water <b>Max:</b> 164 oz (3 lb ai)/yr; 2 app of 82 oz per app	14	12	Foliar-active only. Apply pre-blueberry emergence. <b>Field Conditions:</b> 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. <b>Human &amp; Environment:</b> <b>Highly toxic for skin and reproduction. LP, S</b>
14	GRASS & BROADLEAF	Zeus Prime XC	caflentrazone & sulfentrazone	CAUTION	PRUNE	PRE	7.7 to 15.2 oz/acre, min 10 GPA <b>Max:</b> 1 app/15.2 oz (0.41 lb ai)/yr Maintain spray solution between pH 5-9.	3	12	Apply in prune year before blueberry emergence. <b>Field Conditions:</b> Availability decreases with finer soils and increases with higher pH; do not apply on sand with <1% OM. <b>Activation:</b> Ideally apply to moist soil with 1/2-1" rainfall/irrigation within 2 weeks of application. <b>Caution:</b> Do not tank mix with flumioxazin or other products containing sulfentrazone. Do not apply using an airblast sprayer or by air. Do not apply using a mechanically pressurized handgun. <b>Human &amp; Environment:</b> <b>Moderate toxicity for liver; carcinogenic. MP, S</b>
27	ANNUAL BROADLEAF	Callisto (crop yr 24c label expires 12/31/27)	mesotrione	CAUTION	PRUNE	PRE	2 oz (24c label) <b>Max:</b> 2-3 app. of 2 oz (min 14 days apart) or 1, 6oz (0.19 lb ai/A) app	60	12	*Only Callisto has a 24c label allowing use in the crop year. <b>Post-emergence Applications:</b> Must be made before weeds reach 5" in height. Application must be made prior to bloom. Do not apply by air for prune or early crop stage. <b>To increase efficacy:</b> Add COC (1% v/v). Add 8.5 lbs AMS/100-gal water. <b>Crop Injury:</b> May occur in dry conditions or over 85°F. See 24C label for revised prune year/crop year application. <b>Human &amp; Environment:</b> avoid repeated exposure. <b>MP, S</b>
						POST				
		NO			Explorer; Mesotrione 4SC	PRUNE	PRE	3 to 6 oz <b>Max:</b> 2 app of 3 oz/yr (min 14 days apart) or 1 app of 6 oz/yr	NA	12
							POST			

Prepared by Lily Calderwood, Extension Wild Blueberry Specialist, and Jordan Parks, Research Assistant. The University of Maine, Orono, ME 04469. January 2025.

**PLEASE NOTE: THIS REVISED VERSION REPLACES ANY PREVIOUS CHARTS.**

<sup>1</sup> 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.

<sup>2</sup> 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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