

# The Blueberry Bulletin

*A Weekly Update to Growers*

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- ❖ Visit the Blueberry Bulletin webpage at [njaes.rutgers.edu/blueberry-bulletin](https://njaes.rutgers.edu/blueberry-bulletin)
- ❖ The 2022 Commercial Blueberry Pest Control Recommendations for New Jersey is available on [njaes.rutgers.edu](https://njaes.rutgers.edu). The 2024 manual is out but not on the website yet. We have copies available at the office.

## WEED SCIENCE

*Dr. Thierry E. Besançon, Extension Weed Science Specialist, Rutgers University*

### **Endangered Species Act: What will soon change for pesticide labelling and uses?**

**Free Webinar on Wednesday, March 20 at 11 a.m**

Enacted in 1973, the Endangered Species Act (ESA) requires all federal agencies to consider the impact to threatened and endangered species and their critical habitat when making decisions. The Environmental Protection Agency (EPA) has faced numerous lawsuits for its failure to consider the Act when issuing pesticide registrations—resulting in a 2023 commitment from the Agency's Office of Pesticide Programs that puts the ESA at the forefront of all future registrations and some registration renewals.

The NYS IPM program at Cornell will be hosting Dr. Bill Chism, Chair of the Endangered Species Act Committee for the Weed Science Society of America (WSSA), to give a webinar on March 20th (at 11 a.m.) with the following objectives:

- ⇒ Inform us about the history of Endangered Species Act (ESA),
- ⇒ Discuss the requirements of all Federal agencies to comply with the ESA,
- ⇒ Describe the EPA's current workplan (including the proposed Herbicide Strategy) to meet their statutory obligations,
- ⇒ Explains what this might mean for future pesticide labeling efforts.

Online registration: [Endangered Species Act and Pesticides: An Example](#) or <https://cals.cornell.edu/angered-species-act-and-pesticides-example>

## About the Speaker



Bill Chism is the chair of the Endangered Species Act Committee of the Weed Science Society of America (WSSA). He retired after more than two decades with the EPA, where he conducted assessments on the benefits of pesticides to farmers as part of the registration review process. Bill grew up working on a vegetable farm in the Salinas Valley of California. He worked in extension researching weed control research on vegetable crops before earning his PhD in Weed Science from Virginia Tech and spent 10 years working for a pesticide registrant.

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## Take a quick survey to help with Field Equipment Sanitation Research!

In a Specialty Crop Research Initiative (SCRI) grant designed to guide future solution and resources centered around field equipment sanitation, collaborative team comprising pathologists, weed scientists, agronomists, and experts in agricultural equipment sanitation has crafted a questionnaire. This questionnaire is designed to gather growers' input on their current practices and determine the necessity for implementing new ones.

The research will develop a more comprehensive understanding of the challenges associated with field equipment sanitation and work toward developing solutions that are effective, implementable and sustainable. To introduce the survey and forthcoming research effort, Dr. Matt Grieshop, CalPoly University and lead PI on this project, indicates that "We are a group of agricultural research and extension professionals from across the United States that are curious about grower and agricultural professional perceptions about the importance of field equipment sanitation to mitigate the spread of organisms that pose human health, weed, plant pathogen or other risks.

Agricultural field equipment includes tillage implements, tractors, harvesters, cultivation equipment, trucks, trailers, sprayers, mowers, or any other piece of equipment that is shared across fields.

This information will be solely used to help frame future research questions and outreach activities. It will not be published or distributed in any form. Answering should take 5 minutes or less and is completely voluntary and anonymous.



Your participation is invaluable to future developments in the industry regarding food safety and equipment sanitation. We need more inputs from New Jersey specialty crops growers so that they have a say on the direction that field equipment sanitation research will take in the future!

To contribute, visit [here](#) or scan the QR code.

If you have questions, comments or concerns contact Dr. Matt Grieshop at [mgriesho@calpoly.edu](mailto:mgriesho@calpoly.edu) or Dr. Thierry Besançon at [thierry.besancon@rutgers.edu](mailto:thierry.besancon@rutgers.edu).

# 2024 Update on Weed Control with Residual Herbicides for Highbush Blueberry

*Dr. Thierry E. Besançon, Extension Weed Science Specialist, Rutgers University*

As the T3 stage is rapidly approaching, soil-applied preemergence herbicides should be sprayed before blueberry bud break to minimize the risk of crop injury and allow sufficient time for residual herbicide to be “activated” by rainfall.

Soil-applied preemergence herbicides should be applied prior to weed seed germination. If applied to weeds that are already out of the ground, most of these products will not control them if they are not tank-mixed with a postemergence herbicide. Glufosinate (Rely 280), paraquat (Gramoxone and generic formulations) and carfentrazone (Aim) are postemergence herbicides that may be applied with preemergence herbicides with little risk of crop injury. **Keep in mind that at least ½” rainfall or irrigation is needed within 7 days after application to move (“activate”) preemergence herbicides into the soil solution.** Delaying activation may reduce overall performance if some weeds continue to germinate under low soil moisture conditions or if herbicide at the surface of the soil is susceptible to sunlight breakdown.

Make sure the herbicides you plan to apply will be effective at controlling the weed species in your field by checking the herbicide label. Usually, residual herbicides will suppress weed for 5 to 8 weeks depending on irrigation as well as soil and weather conditions. After this period, another residual herbicide can be needed to control weeds through harvest and could be mixed with postemergence herbicides to control emerged weeds. To reduce the potential of selecting for herbicide-resistant weeds, it is **highly recommended** mixing two herbicides that belong to two different WSSA (Weed Science Society of America) groups whenever you apply preemergence herbicides.

**Please, refer to the 2024-2025 New Jersey Commercial Blueberry Pest Control Recommendations for more information on herbicide rates and use restrictions.**

<https://njaes.rutgers.edu/pubs/publication.php?pid=E265>

## WSSA group 0 – Unknown Site of Action

**Devrinol 50DF-XT** or **Devrinol 2-XT** (napropamide) will provide good control of annual grasses and should therefore be tank mixed with a PSII or a PPO inhibitor for controlling broadleaf weeds. Devrinol is rapidly degraded if left exposed on the soil surface, so it should be applied less than 24 hours before a rain event to incorporate the herbicide in the soil.

## WSSA group 2 - Acetolactate Synthase (ALS) Inhibitors

**Solida 25WDG** or **Matrix 25SG** (rimsulfuron) or **Sandea 75DF** (halosulfuron) are ALS-inhibiting herbicides that have both preemergence and postemergence activity. They control most annual broadleaves but are weak on common groundsel, common lambsquarters and eastern black nightshade. Sandea is **ONLY** recommended for postemergence control of yellow nutsedge. However, these two herbicides will **NOT** control ALS resistant weeds (horseweed, ragweed) already widespread in New Jersey. Thus, these herbicides should always be tank mixed with a partner effective at controlling these weeds.

### WSSA group 3 - Mitosis Inhibitors

**Kerb 50WP** or **Kerb 3.3SC** (pronamide) is effective at controlling many annual grass species for 4 to 6 weeks after application. Surflan should not be applied to soils containing more than 5% organic matter. Kerb also helps controlling perennial quackgrass as well as annual bluegrass. If applied to warm soils, Kerb persistence and weed control can be severely reduced; therefore, keep Kerb for fall/winter application when soil temperature remains under 55°F. Do not use Kerb on blueberries that have not been established for about a year.

### WSSA group 5 and 7 - Photosystem II (PS II) Inhibitors

PS II inhibitors have a broad spectrum of control and will be effective against many broadleaves and annual grasses when applied in spring. **Karmex 80DF** (diuron) and **Princep 4L** or **Princep Caliber 90WDG** (simazine) have relatively low solubility and have been very safe on blueberries. **Sinbar 80WDG** (terbacil) has a longer residual life in the soil and also is more soluble, so it should be used infrequently on light, wet soils. These herbicides are effective on many broadleaf weed species, including common chickweed, common lambsquarters, common groundsel, henbit, nightshade, redroot pigweed, pineapple weed, shepherd's-purse, smartweed, and some mustards. Princep and Sinbar will also control many annual grasses and help suppressing quackgrass. **Do not exceed more than 1 lb/A of Sinbar** to minimize the risk of crop injury.

**Trellis 4.2SC** (isoxaben) is registered for bearing and non-bearing blueberry. Trellis will be most useful in new plantings for preemergence control of annual broadleaf weeds such as common lambsquarters, ragweed, black nightshade, horseweed and smartweed. It does not control grasses.

**Velpar 2L** or **Velossa 2.4L** (hexazinone) is very soluble and **should not be used on blueberries grown on sandy soils** as the risk of crop injury is high with this herbicide.

### WSSA group 12 and 27 - Carotenoid Biosynthesis Inhibitors

**Solicam 80DF** (norflurazon) can be applied in fall or early spring primarily for annual grass control and quackgrass suppression. Solicam may also provide partial control of many broadleaf weeds as well as of yellow nutsedge. Do not use Solicam on blueberries that have not been established for about a year.

**Callisto 4SC** or **Motif 4L (mesotrione)** will control many annual broadleaf weeds as well as annual sedges. It controls large crabgrass but no other grasses, such as goosegrass. Callisto may be used as a broadcast spray between rows to control broadleaves and crabgrass without injuring the fescue sod. However, Callisto **CANNOT** be applied after the onset of bloom.

### WSSA group 14 - Protoporphyrinogen Oxidase (PP0) Inhibitors

**Chateau EZ** (flumioxazin) and **Zeus 4XC** or **Zeus Prime 3.5XC** (sulfentrazone) have activity against many annual broadleaf weeds (pigweeds, common lambsquarters, ladythumb, mallow, shepherd's-purse) when applied preemergence in spring. Chateau and Zeus Prime XC also have some postemergence activity on newly emerged seedlings of annual weeds. Herbicides containing sulfentrazone will also provide suppression of yellow nutsedge. Chateau has a 7 days pre-harvest interval (PHI) and Zeus Prime XC has a 3 days PHI, allowing these herbicides to be applied later in the season to extend preemergence broadleaves control into summer. Blueberry plants must have been established at least two years prior to use of these herbicides.

### WSSA group 15 - Protoporphyrinogen Oxidase (PP0) Inhibitors

**Dual Magnum 7.6ec** (S-metolachlor) has a 24(c) Special Local Need label for blueberry in New Jersey. This herbicide provides preemergence control of many annual grasses and some small-seeded broadleaf annual weeds such as redroot pigweed, nightshade and common

purslane. Dual Magnum also suppresses emergence of yellow nutsedge. Use Dual Magnum only on plants established for more than one year, and lower rates are suggested on 2- to 3-year-old plantings.

#### **WSSA group 29 – Cellulose Synthesis Inhibitors**

**Casoron 4G (dichlobenil)** is a cellulose synthesis inhibitor recommended for fall application to control many annual and perennial broadleaves, grasses and yellow nutsedge. **If left on the soil surface or if applied to warm soil (> 55°F or 70°F depending on Casoron formulation), Casoron can lose much of its activity.**

**Alion 1.67SC** (indaziflam) **IS NOT LABELED FOR USE ON Highbush Blueberry grown on sandy soils and/or in soils with ≥20% gravel content.** Additionally, Alion requires significant rainfall for being activated which is not guaranteed with spring applications. Field trials at the Marucci Center have consistently shown better weed control efficacy with fall applications than spring applications.

**Casoron 4G and Alion 1.67SC should be used ONLY for fall/winter applications.** Plants must be at least one year old before Casoron 4G or Alion 1.67SC should be used.