New options for weed control in blueberries

Four new products have recently been approved for use in blueberries. When it rains it pours. Before using these new tools, it is imperative that you spend some time reading the label carefully. Callisto, Sandea, Stinger, and Dual Magnum join Chateau as powerful tools for the toolbox. These tools may bring big improvements in weed management in blueberries, or destruction if used improperly.

**Four common cautions to observe**

1. Note pre-harvest intervals (PHI). Applications too close to harvest may cause illegal residues in or on produce.
2. Do not soak the weed with herbicide in the same way that Roundup and Rely are often applied. Apply a calibrated rate evenly to all areas sprayed.
3. Prevent drift onto other crops.
4. Check with international buyers to ensure that MRLs will be met for these products.

**Stinger**

**Weed target** Canada thistle and other weeds of the sunflower family such as dandelion, sowthistle, groundsel and prickly lettuce.

**Rate** 2.67 to 5.3 fl oz/A depending on weed species present. Make a maximum of two applications with total usage not to exceed 10.6 fl oz/A (2/3 pint/A) per season.

**Time** Up to 30 days before harvest, or after harvest.

- Consult SLN labels OR-100011 and WA-100005 before applying to become familiar with situations that will increase the chance of injury to blueberries.
- Blueberry plants are most sensitive to Stinger when applied in the spring, during the crop’s annual flush of growth and prior to bloom.
- Do not apply Stinger during the time from one week prior to bloom until one week after bloom.
- Blueberries are less sensitive after bloom has ended. After bloom, apply Stinger up until 30 days prior to harvest. Do not apply within 30 days of harvest.
- Do not permit Stinger to contact desirable foliage because crop injury will result.

**Directed Spray Treatment:** Apply Stinger uniformly as a spray at 2.67 to 5.3 fl oz/A directed to the soil, and away from the blueberry plants to the row middle without contacting the foliage or woody portions of blueberry plants. Apply with ground broadcast equipment, backpack sprayer, or wipe applicator in a total spray volume of a minimum of 10 gal/A.

- **Spot Treatment:** Hand-held sprayers may be used for spot applications, but care should be taken to apply Stinger at the proper rate per unit area. Apply a calibrated rate evenly to the area sprayed.
- **Wipe Treatments:** For wipe treatments, apply a 2% solution of Stinger in water (2.5 fl oz or 75 mL/gal).

**Sandea**

**Weed target** Nutsedge is primary target. Marestail and common groundsel also can be controlled with preemergence applications.

**Rate** 0.5 to 1 oz/A

**Time** Preemergence or postemergence (nursedge control)

- For nutsedge control, make a single postemergence application of 0.75 oz/A minimum to nutsedge that has 3 to 5 leaves. Two applications are permissible if additional nutsedge plants emerge, but allow 45 days between applications. Do not irrigate for 3 to 4 days after application to maximize efficacy. Add a non-ionic surfactant to improve activity.
- Preharvest interval is 14 days.
- Do not let spray contact blueberry bushes.
Callisto

Weed target Controls many broadleaf weeds but controls few grasses and no perennial weeds.

Rate 3 to 6 fl oz/A

Time Prebloom, directed spray.

- May be applied as a split application, but no more than 6 oz/A per year.
- Has both burndown and soil-residual activity.
- Use crop oil concentrate at 1% v/v to enhance postemergence weed control.
- Separate applications by 14 days.
- Applying after the onset of bloom may result in illegal residues.
- Damage from Callisto is typically unseen, but excessive overspray onto leaves or new emerging shoots will reduce growth.

Dual Magnum

Weeds targeted Grasses, small seeded broadleaves, and nutsedge

Rate 0.67 – 1.3 pts/A

Time Prior to weed emergence, up to 28 days before harvest

- The application should be directed to the soil surface in a 3 foot band on each side of the blueberry row.
- Avoid direct contact with the crop foliage or crop injury may occur.
- Use the lower end of the Dual Magnum rate range for soils that are relatively coarse textured and higher rates on fine textured soils.
- Dual Magnum will not control emerged weeds.
- Not all blueberry cultivars have been tested so injury may occur on some types of blueberry. Growers are encouraged to treat a few plants as a test and evaluate crop injury.
- Blueberry plants that have been established for less than one year may be more sensitive to applications of Dual Magnum than those plants established for more than one year.

Chateau

Weeds targeted Summer annual broadleaves

Rate 6 to 12 oz/A

Time Preferred timing is fall, to maximize potential of rain to activate the herbicide. In spring, apply before bud break, or after harvest.

- Approved for use West of Cascade Mountains in Oregon and Washington in specified counties.
- Chateau has limited postemergence activity that is enhanced by adding surfactants. Add 0.25% v/v nonionic surfactant or 1% crop oil concentrate to enhance postemergence burndown activity.
- Tank mix with herbicides such as glyphosate, glufosinate, or paraquat to kill large weeds.
- Residual weed control will be reduced if vegetation prevents the spray from reaching the soil.
- Moisture is necessary to activate the herbicide for residual weed control.
- Dry weather after application may reduce effectiveness.
- Do not exceed 12 oz/A per application or 24 oz/A per year. Use the 6 oz/A rate if soil has significant sand or gravel.
- Do not apply to blueberries established less than 2 years.

- Avoid direct spray contact with foliage or green bark, particularly if using the 12 oz rate with surfactants (see photo below).
- Do not apply to soils that are susceptible to dispersal by wind. This herbicide can move to susceptible crops on soil particles and cause damage.
- Do not apply within 300 yards of non-dormant pears.
- Do not mow treated areas between budbreak and final harvest. Dust created by mowing may injure susceptible plants.