Fall weed control in berry crops

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Treating tough perennial weeds

Late summer and fall is a good time to work on tough-to-control perennial weeds such as Virginia creeper vine, grapevine, milkweed, goldenrod, poison ivy and brambles. These perennials generally do not respond to soil applied herbicides, but can be managed by careful applications of glyphosate (Roundup) in the fall. Glyphosate is effective on these weeds, but will also kill berry plants. Perennial weeds succumb because the plant is moving carbohydrate reserves down into the root system at this time of year. So treated leaves quickly move the systemic herbicide glyphosate down into the crown and root. You need to treat before the leaves drop though – so the clock is ticking. Some woody weeds like Virginia creeper vine, drops its leaves early in the fall.

For spot spraying perennials:

- Use 2 percent glyphosate solutions.
- Add ammonium sulfate to improve absorption.
- Avoid all green berry tissues.
- Apply when weeds are still green.
- Spray at very low pressure to limit drift.

Use extreme care not to contact green berry tissues with glyphosate. Glyphosate can kill whole canes, plants or bushes. Weeds such as blackberry, Virginia creeper and grapevine may need to be pulled out of the bush or cane crop so they can be treated safely. This may seem too slow to be practical, but according to Eric Hanson of MSU, "consider what these weeds cost in lost income. Bushes covered by Virginia creeper vine may yield just 20 percent of their potential. This easily equates to a \$5 to \$10 loss per bush. The loss is incurred each year and increases as the vines spread to neighboring bushes. Investing 15 minutes to carefully pull vines out of that bush and safely treat them on the ground is money well spent."

Fall application of preemergent herbicides

October and November is often an effective time to apply preemergent herbicides. Fall is less busy than spring for most growers and often we have periods of good conditions in the fall. In recent years, rainy periods in the spring have hampered herbicide applications and sometimes delayed applications until after weeds have established, so control is poor. Over the last three years, we have compared spring and fall applications of several standard herbicides. Most provided comparable control in both seasons. Fall may be better than the spring for control of some weeds. Marestail, for example, can emerge in the fall, so spring applications are too late for control.

In strawberries and cane berries, we have some relatively new materials available to NY growers that could help growers with problem weeds. Flumioxazin is the active ingredient in Chateau which has

proven to be very effective as a preemergent herbicide in established strawberry fields as well as pretransplant and also has a special label for cane berries.

Chateau can be applied in the late fall or early spring while following the pre-emergence on dormant strawberries guidelines. Late fall application has been found to be somewhat easier to manage in region. Chateau can be tank mixed with other as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or prepack rate on the weed(s) of concern. Crop oil concentrate, at 1% v/v, or non-ionic surfactant, at 0.25% v/v, may be added to help control emerged broadleaf weeds (see label for weeds controlled).

Spraying at this time also helps prevent the occasional problem of dust from treated soil causing burn on the foliage. This usually happens after a hard rainstorm causes treated dusty soil to splash upwards.

Chateau is limited to one application of no more than 3 oz per acre each season. It's a valuable chemical so choosing the best timing is important. Late fall may be the best approach for most growers in eastern NY.

Be cautious of relying on formulations like 2,4-D. That chemical needs to be used in warm soil conditions, and despite our warming autumn weather, fall isn't the best timing for good impact from that chemical.

Other preemergent herbicides that can be used in the fall include:

- Napropamide (Devrinol) requires cultivation or irrigation to a depth of 2 inches within 24 hours of application. It is only effective if that is accomplished.
- Terbacil (Sinbar) can be applied in the dormant season from mid-fall to late winter. If leaves are present when material is applied, the application must be followed immediately by 0.5 to 1 inch of irrigation or rainfall to wash the chemical off the strawberry foliage. Otherwise, unacceptable injury many result. Do not use on soils with less than 0.5% organic matter. Strawberry varieties vary in their sensitivity to *Sinbar WDG. Determine varietal tolerance under expected field conditions to avoid the potential for widespread injury. Terbacil is limited to 8 oz/A per growing season.

The trick is that all of these herbicides offer some advantage depending on what your weed pests are. Scouting now, while leaves are still on the weeds, and coming to a positive ID is important. Also, reading the label carefully. To get the newest and most complete label, visit the <u>NYS DEC NYSPAD</u> site. You can search for the label using the trade name, the active ingredient or the Federal ID#.