

Fall Weed Control in Apple and other Tree Fruit Crops

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Fall Weed Control

Late October, early November after apple harvest is complete is an excellent time to apply post emergent herbicides to apple and all tree fruit crops.

Note the recommendations and materials listed in this article are for NJ growers. Growers in other states including Massachusetts must check their state labels to make sure the herbicides discussed are labeled in your state.

For over 35 years Dr. Majek and I have promoted the use of spilt preemergent applications in orchards; spring and fall. The split applications, beginning in the fall give us more breathing room in the spring to control germinating weeds. If weather or soil conditions are not conducive for a spring application in late March we have bought time with our fall application, to hold us until the end of April.

- There is no substitute for a good pre-emergent weed control program consisting of both broad-leaf and grass pre emergent materials applied in a split application both spring and fall.
- Note a combination of a broadleaf and grass preemergent herbicides must be used. Some herbicide products have overlap between control of broad leaf weeds and grasses but one of each type of preemergent should be combined for the widest range of weed species control.
- Know your weed species you are trying to control; this will let you better match the materials you select for your pre-emergent herbicides.
- All pre-emergent herbicides work best when applied to bare weed free soil.
- All newly planted trees should be protected with a non-porous tree guard or white latex paint. I used to use blank milk carton blanks but you only get 2 years from them, you need protection through year five.

- I like more and more painted new tree trunks with full strength white latex paint. You protect against herbicide, rabbit and mice and you get south west cold injury protection.
- I have one grower solution cost effective, using 4 inch black corrugated drainage tile, bought in 100 foot lengths or more, cut to length and slit on one side, slips right on trunk.
- Note: Trees planted in 2021 should have trunk protection for this fall application.
- All herbicide spray water should be buffered and pH adjusted to 7.0 or lower. Higher pH's can deactivate the herbicide and cause failures
- In a perfect world all perennial weeds are controlled one to 2 years prior to orchard establishment. Perennial weeds are best controlled in September prior to planting, if systemic herbicides are used in September in existing orchards the trees are highly susceptible to injury!
- Apply all herbicides with low pressures 20-25psi and use nozzles that produce large droplet sizes no minimize drift.
- There is much interest in air induction nozzles for herbicide application for this reason.

Boron – all apple fall herbicide applications should also include one pound of actual Boron per acre. Boron leaches very easily and is essential to apple. It should be added annually.

Fall Tree Fruit Pre-Emergent Herbicide Options for Apple

For Grass weeds

- Prowl H2O (pendimethalin)
- Solicam DF (norflurazon)
- Surflan (oryzalin) note has been unavailable the last 2 years

Specialized Fall Grass Materials

- Kerb (pronamide) – for established stands of grass under the tree in the herbicide strip- works as a pre and post emergent herbicide- Rate is dependent on soil textural classification, works on many annual and perennial grasses- see the label

For Broadleaf Weeds

Trees less than one full year (planted this spring)

- Gallery or Trellis 4.16SC-(isoxaben) can only be used on newly planted trees-non bearing trees
- Chateau 51S- (flumioxazin) no more than 6 ounces, trunks must be protected. Chateau does have post emergent activity and works better if applied on bare soil.

For trees 1-3 years old

- Chateau 51SW (flumioxazin) – 6 ounces/A- trunks should be protected
- Princep 4L--(simazine)- established trees 1 year and older -150 day PHI should only be used as option in fall
- Karmex (diuron)- established trees 1 year and older
- Casoron CS- (dichlobenil)- for well established plants more than one year after transplanting

Trees Established 3 years or More

- Chateau 51S- (flumioxazin) no more than 6 ounces, trunks must be protected. Chateau does have post emergent activity and but as a pre-emergent it works better if applied to bare soil.
- Princep 4L-(simazine)- established trees 1 year or older
- Alion 1.67SC (indaziflam) - established 3 years or more- note the soil texture and gravel cautions and rates
- Zeus Prime 3.5 XC- (carfentrazone + sulfentrazone)- helps control nutsedge and is long residual
- Casoron CS- (dichlobenil)- established trees 1 year after transplanting- read the weeds controlled, hits some perennials other products miss

Post Emergent Not Selective

- 2,4-D amine- controls broad leaf weeds only- Probably one of the easiest on tree trunks
- Embed 3.8SL- new form of low volatility 2,4D (2,4-D choline)

<https://www.canr.msu.edu/news/new-24d-formulation-offers-greater-safety-for-berries-tree-fruit-nut-tree-crops>

- Gramoxone SL) 2SL (or generic paraquat)- non selective, grass and broad leaf weeds if still green- more restrictions on application make it tougher to use for the grower. Since we must add surfactants to Gramoxone trunks should be protected especially trees in the first 3 years in the orchard.
- Glyphosate- **spot treatments only this time of year**, after June 21, Glyphosate will translocate through suckers and injure the tree. If you hit green bark or leaves at any time on apple or peach you will cause injury (see photo 1). Glyphosate should only be used one time a season as a broadcast in apple or peach- that would be in April or early May with a shielded boom and only on trunks with protection.
- **Rely or other generics of (Glufosinate)- Should never be used in apple or peach.** Dr Majek and I did extensive research on Glufosinate on apple and peach in along with 3 other land grant universities. We found it cracked mature brown bark on apple trees. I have documented injury on apple in other orchards so we continue not to recommend it.

See Dr. Majek's comments in the Tree Fruit News of the Rutgers Plant and Pest publication: "Glufosinate Products, Sold as Rely 280, Expand as Generic Products Enter the Market" dated 6/27/2014. Please observe the photographs of peach and apple injury from our replicated trial on mature apple and peach.

<https://plant-pest-advisory.rutgers.edu/glufosinate-products-sold-as-rely-280-expand-as-generic-products-enter-the-market/>

For Other Tree Fruit Crop recommends

For Information on PHI's and other tree fruit crop uses refer to tables 4.4 and 4.5 In the 2021-2022 Rutgers NJ Commercial Tree Fruit Production Guide E002 <https://njaes.rutgers.edu/pubs/publication.php?pid=E002>

Sod Middles and Grass Headlands- Late fall after harvest is the best time to control broad leaf weeds and white clover. Broad leaf weeds host viruses that can be transmitted to trees. In addition dandelion bloom competes with apple bloom. Note that clover blooms all season and makes most insecticides applied to apple off label applications, if white clover blooms are present in the turf on clover.

2,4-D amine (Weedar) @ 1.0 quart /Acre or Embed 3.8SL (2,4-D choline)
+ Copyralid @ 3.0 oz / acre (Spur or Stinger)

Eco-Friendly Insect, Disease, Bird Control

University/USDA tested

Stink Bug Traps

Brown Marmorated and Native Bugs

Insect Traps and Lures

*Plum Curculio Trap Tree Control, Codling & Oriental Moth, Cranberry Pests, **Black Stem Borer**, Others*

Honey Bee Lure

Attract Bees - Increase Pollination

Predalure attracts beneficials

Oriental Beetle MD

*Mating Disruption
Fruit Crops & Ornamentals*

Prestop

New Biofungicide Impressive Activity. Foliar/Root Diseases

Avex

Bird Control. Apply by ground or air. Cherries, Blueberries, Sweet Corn, other crops



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