



THE TENDER FRUIT GRAPE VINE

A Newsletter for Commercial Fruit Growers

Volume 10, Issue 1

September/October 2005

Yellowjackets in Grapes

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In late summer, outdoor meals are often disrupted by the appearance of yellowjacket wasps intent on sharing your food and drink. As you curse and swat at the hovering yellow and black wasps, always mindful of the painful sting if the invaders are faster than you, consider that these wasps are actually beneficial insects for the most part.

Yellowjackets are often some of the most important consumers of other insect pests – especially caterpillars in fruit crops – during the spring and occasionally present in such large numbers as to seriously affect yield. In other cases they are just a nuisance when mechanically harvesting. However, for hand harvesting, yellowjackets can be a dangerous and disruptive pest for workers and grapes alike.



Fig 1: Yellowjackets feasting on grapes.

When yellowjackets are pests in grapes, they are very difficult to manage. There are no insecticides

early summer. At that time of year queens, and later their offspring, collect “meat” to feed their developing young or nest-mates. In late summer, yellowjackets become agricultural pests when their food preferences change from meat (caterpillars, scavenged flesh from dead animals, etc.) to sugar sources such as berries, grapes, or fruit. Of course, to picnickers they are always pests; likewise if they decide to nest in or around your home.

Although different species tend to nest in different places and may have somewhat different life histories, from a grape grower’s perspective, all yellowjackets are problematic. They feed on ripe and damaged berries and are

registered for commercial use on yellowjackets in grapes. Some landscapes provide excellent habitats for yellowjackets, and in these areas, yellowjackets may be a perennial problem. Early season trapping of foraging queens and destruction of new nests in the spring will have very limited (if any) impact on fall populations, based on control attempts in other areas. It would require a huge amount of effort to follow wasps to new nests, so trapping early season queens seems like a better strategy. Unfortunately, when tried in other countries, this approach did nothing to prevent later season migrants from entering and colonizing the area.

Trapping wasps later in the season may help lower the damage on grapes but the trapping needs to be started early and maintained through harvest. Trapping will not eliminate all yellowjackets in the area – it will only lessen the problem. Commercial traps are available at any hardware store or you can build some yourself. Any structure that acts as a funnel (like a minnow trap) to prevent the wasps

from flying back out will work, but good fresh bait is essential (Fig 1). You can also make a yellowjacket trap by suspending a fish over a pan of water with detergent in the water to lower the surface tension. Slit the sides of the fish to make it easy for the wasps to forage. They will fly in, chew off a chunk of fish, and when they try to fly away they will dip into the water and drown. The fish need to be changed every other day because yellowjackets prefer unspoiled meat. If raccoons are also a local problem, these traps should not be left out at night. Keep in mind that in years where yellowjackets are plentiful, you will need a lot of any kind of trap and a lot of time to service them every few days.

Early season bait should be fresh meat or fish (tuna works well) but later in August, sweet liquids are best. Commercial liquid baits do work, but recent research showed that Mountain Dew™ was the best attractant over orange soda or commercial bait (Wegner and Jordan, 2005). Jam, honey, molasses, yeast mixtures, and even beer (what a waste!) have also been used as wasp bait with varying degrees of success. When yellowjackets are plentiful, just about any sweet liquid will attract dozens to funnel traps each hour so the traps need to be serviced daily or they will lose effectiveness when full of dead wasps.

Necessity is the mother of invention, and I have heard of berry growers attempting to remove yellowjackets with portable vacuums just ahead of pickers! I'm not sure how well that worked, but grape growers in some areas have reported good results with extensive trapping in spite of some studies that have suggested trapping is ineffective. So be inventive and share your success stories with us if you have to battle an infestation of yellowjackets this fall.

Reference:

Wegner, G. S. and K. K. Jordan. 2005. Comparison of three liquid lures for trapping social wasps (Hymenoptera: Vespidae). *Journal of Economic Entomology*. 98 (3): 664-666.

Top 10 Things to Do about Weeds in Your Orchard/Vineyard in the Fall

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Weeds have been too successful in orchards and vineyards this year, and many growers are asking about changing their strategy for next year. Start now with these 10 things for this fall to help your weed management program next year:

10. **Mow weeds** before they shed seed. This is especially important under trees and on field edges, but can be effective in many areas of the field.
9. **Spot spray** perennial weeds with systemic herbicides (eg. Roundup or Amitrol). Fall is an excellent time to control regrowth of quackgrass and broadleaf perennials like thistles and milkweed. Avoid trunks, root suckers and lower branches with systemic herbicides to prevent damage to trees and vines.
8. **Clip climbing vines** out of trees and trellis - Virginia creeper (5-leaf ivy), wild grape and poison ivy enjoy the "support" provided. Dab the cut stems with 2,4-D or glyphosate to prevent resprouting.
7. **Prune fruiting shrubs** like mulberry and sumac out of fencerows and field edges. Birds love spreading seeds into orchards and vineyards. The "Stump Treatment after Cutting Deciduous Woody Species" (p. 309, Pub. 75) can help eliminate these problems.
6. **Clear weed growth** around trees or vines to discourage rodents. Pea gravel around the trunk/vine can discourage both weeds and rodents year-round.
5. **Identify any unfamiliar weeds**, noting their location and possible introduction routes into your fields.
4. **Hill soil around grapevines**, covering the graft union and lower buds. This clears out existing weeds and provides protection from winter kill of the graft.
3. Take a **final scouting trip for weeds** through your fields. Note what kind of weeds (grass or broadleaf) and map where they are found.
2. **Apply fall herbicides treatments**. In orchards, a post-harvest application of 2,4-D is very effective at reducing broadleaf weeds, both winter annuals and perennials like dandelions. Late fall applications of Casoron granules can free up time in the spring, and suppress many perennial weeds.

1. Plan now pick up the **2006-7 Publication 75, Guide to Weed Control** when it is published in the new year. This new revision will contain the latest information to help improve your weed strategies for next season.



Virginia Creeper

Problem Weed of the Month: Poison Ivy

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Problem weed: Poison ivy

Other names: *Rhus radicans*, poison creeper, three-leaved ivy, sometimes incorrectly called poison oak. Actually a member of the Cashew family.

Growth habit: Woody perennial. Extremely variable in both its habit of growth and kinds of habitat.

Description: Stems are woody and grow either along the ground, or as a climbing vine with aerial roots, reaching to tree tops. "Leaflets three - Let it be!" Always has 3 leaflets alternate at the nodes, with the middle leaflet having a longer stalk (petiolule). Leaves are generally shiny with varying types of margins. Leaves turn a bright red in autumn.



Spreads by: Seeds and by woody rhizomes. Birds spread the seeds from the white berries.

Reasons for concern: All parts of the poison ivy plant are poisonous, producing a major skin rash. The toxic compounds can be spread by smoke or by direct contact with the oils in the plant. About 2/3 of the population are sensitive to poison ivy. Pets, tools and clothing can spread the oils at any time through the year. Usually invades from field edges, but often occurs in growing up fruit trees and vines. Listed as a noxious weed under the Ontario Weed Control Act.

May be confused with:

- **Virginia creeper:** also a woody vine common in orchards and fence rows, but has 5 or 7 leaflets. Berries are blue, and are also poisonous.
- **Manitoba maple:** may have 3 leaflets instead of the usual 5, but has leaves opposite on each node. Seeds are like maple keys instead of in berries.
- **Clematis:** also a climbing or trailing vine but has opposite leaves (2 compound leaves come from each node on the stem) and larger white or blue flowers.
- **Hog-peanut and ground nut:** also vines with alternate leaves (like poison-ivy) but with clusters of small whitish to purplish or brownish flowers like those of the sweet pea.
- **Poison oak:** also has very coarsely toothed leaflets, but does not occur in Canada.

Cultural control:

- Easily controlled by repeated cultivation.
- Cutting and burning can be done with care.

Find someone who is not sensitive to poison ivy – not me! However, it is almost impossible to remove every piece of underground stem so regrowth is likely to occur. Ensure that the oils in the smoke and contaminated clothing do not come in contact with sensitive people.

- Cutting flowers before they set berries will reduce the spread by birds.

Chemical control:

- Remember that herbicides will also damage desirable plants. Good coverage is essential, and repeat treatments are usually necessary, likely over several years.
- These herbicides will give some control of poison ivy: systemic herbicides like amitrole or glyphosate (may be mixed with simazine), or hormone herbicides like 2,4-D, mecoprop, dicamba. In non-crop areas, dichloroprop, Arsenal (imazapyr) or Garlon (triclopyr) can be effective.
- The most effective treatment time is June 15 – July 31, but anytime plants are actively growing can be useful.
- A small sprayer to treat cut stumps can also be useful for spot treatments.

References and pictures:

- Publication 75, Guide to Weed Control, p. 313, Poison Ivy
- Publication 505, Ontario Weeds, p. 136-137
- Ontario Weed Gallery online
http://www.omafra.gov.on.ca/english/crops/facts/ontweeds/poison_ivy.htm
- Poison Ivy, OMAFRA Factsheet 99-015
<http://www.omafra.gov.on.ca/english/crops/facts/99-015.htm>
- Noxious Weeds Profile - Poison Ivy
http://www.omafra.gov.on.ca/english/crops/facts/info_poisonivy.htm