

# Early Season Insect Management in Vineyards (Bud Swell – Immediate Prebloom)

Photo: Andy Muza, Penn State

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# Pesticide Recertification Credits

## Survey at End of Presentation

### Information Needed:

- Name (as on license)
- Date of Birth
- Phone # (private applicators)

OR

Business Name (commercial/public appl.)

- PA Pesticide License Number

# 2020 New York & Pennsylvania Pest Management Guidelines for Grapes



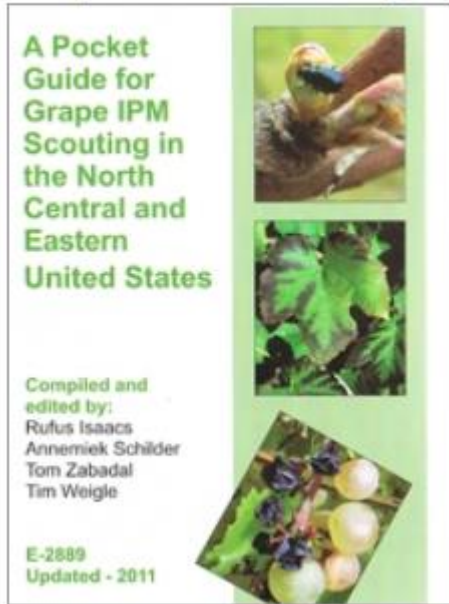
## 2020 New York and Pennsylvania Pest Management Guidelines for Grapes

Cornell Cooperative Extension  PennState Extension

These guidelines are not a substitute for pesticide labeling. Always read and understand the product label before using any pesticide.

# Pocket Guide & Insect Fact Sheets

## A Pocket Guide for Grape IPM Scouting



[https://shop.msu.edu/product\\_p/bulletin-e2889.htm](https://shop.msu.edu/product_p/bulletin-e2889.htm)

<https://ecommons.cornell.edu/bitstream/handle/1813/43096/grape-berry-moth-FS-NYSIPM.pdf?sequence=1&isAllowed=y>

<https://ecommons.cornell.edu/bitstream/handle/1813/43102/grape-leafhopper-FS-NYSIPM.pdf?sequence=1&isAllowed=y>

NY IPM Program: <http://nysipm.cornell.edu/factsheets/grapes/default.asp>

MSU Extension Grapes (Pest Management/ Insects)

[https://www.canr.msu.edu/grapes/integrated\\_pest\\_management/insects](https://www.canr.msu.edu/grapes/integrated_pest_management/insects)

Mid-Atlantic Vineyards Grape IPM : <https://www.virginiafruit.ento.vt.edu/grape-fruit-ipm.html>

Ontario GrapelIPM : <http://www.omafra.gov.on.ca/IPM/english/grapes/insects/index.html>

eXtension - Grape Insect Management - <https://grapes.extension.org/tag/grapes-insect-management/>



# SCOUTING



Photo: Kim Knappenberger, Lake Erie Regional Grape Program, Portland, New York

# Scouting Recommendations

- At least weekly throughout season.

**More is better**

**Especially if:**

- Hot spots
- Problems Detected

Keep Good Scouting/Spray Records



Photo: <https://ecommons.cornell.edu/handle/1813/43101>



Photo: <https://ecommons.cornell.edu/handle/1813/43101>

Photo: <https://ecommons.cornell.edu/handle/1813/43085>



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# Bud Swell Stage

# 3" – 12" Stage

## Banded Grape Bug & *Lygocorus inconspicuus*



- Scout – nymphs in flower cls/shoot tips.
- Crop Loss – levels > 1 nymph/10 shoots



- Insecticides:
  - Sevin 80 Solupak,
  - Danitol 2.4 EC,
  - Imidan 70W,
  - Assail 30SG



Photo: Andy Muza, Penn State



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# 3" – 5" Stage - Grape Plume Moth



Photo: Andy Muza, Penn State



Photo: Andy Muza, Penn State



Photo: Andy Muza, Penn State



Photo: Andy Muza, Penn State



# 10" - 12" Stage – Grape Tumid Gallmaker

Photo: Andy Muza, Penn State



Photo: Andy Muza, Penn State



# 10" – 12" Stage – Grape Cane Gallmaker



Photo: Andy Muza, Penn State



Photo: Andy Muza, Penn State



Photo: Andy Muza, Penn State





<https://ecommons.cornell.edu/handle/1813/43099>



Photo: Andy Muza, Penn State

# 10" – 12" Stage – Grape Cane Girdler



Photo: Andy Muza, Penn State



Photo: Andy Muza, Penn State

# Immediate Prebloom – Rose Chafer



- **Scouting** – about 10 days before bloom. Minimum 3X's/wk, until 2 wks/PB.
- **ET** – 2 beetles/vine
- **Insecticides:**  
Sevin 80 Solupak,  
Danitol 2.4 EC,  
Assail 30 SG

# Insect Management



# Cultural Practices

## Vineyard Area Sanitation



Photo: Andy Muza, Penn State



Photo: Andy Muza, Penn State

# Cultural Practices

## Maintain – Weed free zone under Trellis





# Cultural Practices

**Avoid Excessive Growth**

**Wine Grapes – Leaf Removal**





# Leaf Removal - Riesling



**BEFORE**



**AFTER**

**Table 4.2.2 Insecticides for use in New York and Pennsylvania vineyards**

Insecticide	IRAC Number <sup>1</sup>	Control method	Longevity	GBM	Leafhopper	Japanese Beetle	Toxic to Natural Enemies
Movento	23	S, C, I	***	Phylloxera, mealybug, and tumid gall midge control only			Moderate
* <sup>NY</sup> †Altacor	28	C, I	***	+++	+	+++	Moderate
* <sup>NY</sup> †Belt	28	C, I	***	+++	0	0	Moderate
* <sup>NY</sup> †Voliam Flexi	28 + 4A	S, C, I	****	+++	+++	+++	Moderate
Sevin	1A	C	**	++	+++	+++	Toxic
* <sup>NY</sup> Imidan	1B	C	***	+++	++	+++	Moderate
Avaunt	22A	C, I	**	++	+	++	Moderate
* <sup>NY</sup> †Tourismo	28 + 16	C, I	****	+++	0	0	Moderate
Evergreen	27A + 3A	C	*	+	+	+++	Moderate
*Baythroid	3A	C	***	+++	++++	+++	Toxic
*Brigade	3A	C	***	+++	++++	+++	Toxic
*Danitol	3A	C	***	+++	++++	+++	Toxic
^*Mustang Max	3A	C	***	+++	++++	+++	Toxic
*Hero	3A	C	***	+++	+++	+++	Toxic
Pyganic	3A	C	*	+	+	++	Moderate
* <sup>NY</sup> †Actara	4A	S, C, I	****	++	+++	+++	Moderate
* <sup>NY</sup> †Admire Pro	4A	S, I	****	0	+++	++	Moderate
Assail	4A	S, C, I	***	0	+++	+++	Moderate
* <sup>NY</sup> †Provado	4A	S, C, I	***	0	++++	+++	Moderate
^Venom, ^Scorpion	4A	S, C, I	****	++	++++	+++	Moderate
*Brigadier	4A + 3A	S, C, I	****	+++	+++	+++	Toxic
*Leverage 360	4A + 3A	S, C, I	****	+++	+++	+++	Toxic?
* <sup>NY</sup> †Sivanto Prime	4D	S, I	****	0	+++	0	Toxic?



# Conserve Natural Enemies



## ENVIRONMENTAL HAZARDS

This pesticide is toxic to birds and extremely toxic to fish. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of waste. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Avoid use when bees are actively foraging.

"No Pest" is a pesticide which can move (seep or travel) through soil and can contaminate groundwater which may be used as drinking water. "No Pest" has been found in groundwater as a result of agricultural use. Users are advised not to apply "No Pest" where the water table (groundwater) is close to the surface and where the soils are very permeable (i.e., well drained soils such as loamy sands). Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.



Rotate

Rotate

Rotate



Rotate insecticide chemistries  
between/within each generation  
(e.g., grape berry moth, grape leafhopper,  
Japanese beetle)

# Pest Management

- Sprayer Maintenance
- Sprayer Calibration



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# QUESTIONS ?







# The Penn State Wine and Grape Team

**Thank you for joining our webinar. Please connect with us to learn about future webinars and events:**

- **Wine and Grape U. Blog:** [psuwineandgrapes.wordpress.com](http://psuwineandgrapes.wordpress.com)
  - **Facebook:** PennStateExtensionVitEnol
  - To sign up for the **Wine and Grape Newsletter**, send a blank message to:  
[winegrape-l-subscribe-request@lists.psu.edu](mailto:winegrape-l-subscribe-request@lists.psu.edu)