

The Blueberry Bulletin

A Weekly Update to Growers

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Visit the Blueberry Bulletin webpage at
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2018 Commercial Blueberry Pest Control Recommendations for New Jersey
njaes.rutgers.edu/pubs/publication.php?pid=E265

BLUEBERRY INSECTS

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Mr. Dean Polk, IPM Agent – Fruit

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Plum Curculio (PC): Numbers of actual PC adults found on bushes has decreased over the past week, but some adults are still present. Our average count was 0.02 per bush, with a high of 1.2 adults per bush. Percent injured fruit numbers have also decreased, with an average of 0.079 per bush, with a high of 1.7 infested fruit per bush. Trap counts have also come down slightly, but adult PC are still active.

Aphids: Aphid populations are increasing, and have become the main insect target to take care of prior to embarking on a solid SWD program. Remember that aphids transmit Blueberry Scorch virus, and for all practical purposes they should, **and can**, be maintained below a level of 10% of new shoots infested with active colonies. Aphid counts have increased, with an average count of 4.5% infested shoots, with a high of 46% infested shoots. Colony size has also increased, showing an average of 6-10 aphids per colony.

Leps and other larvae and worms: Worm numbers have decreased again this week, averaging only 0.012 per bush, with a high of 0.4 larvae per bush. Some injured fruit is present, but those levels have also decreased, averaging about 0.06 per bush. Therefore immature leafroller moth and butterfly larvae (worms) are not targets for control at this time, except cranberry fruitworm – see below.

Cranberry Fruitworm (CBFW): Small larvae and infested fruit from CBFW are present, and average 0.003 per bush with a high of 0.3 per bush. These are very low levels that indicate either good control and/or low populations. Trap counts are very low, implying that most of the adult flight is over.

Insecticide Options for Aphids and Leps: Delegate, Altacor, and Exirel are three “reduced-risk” insecticides with very good activity against caterpillars; except for Exirel

(at high rate), they do not control aphids. Assail is a neonicotinoid insecticide active against aphids and cranberry fruitworm. Here are few guidelines you may consider for choosing appropriate insecticides against aphids and leps:

- 1) If **cranberry fruitworm** is your only concern, Altacor, Delegate or Assail are good choices.
- 2) If **plum curculio** is your main concern, Avaunt is a good choice. Avaunt will also control cranberry fruitworm.
- 3) If cranberry fruitworm and **aphids** are your primary targets, you may apply Assail or Lannate.
- 4) If **aphids** are your primary concern, and you do not have major caterpillar pressure, then use the neonicotinoids Assail, Admire Pro, or Actara, or the new insecticide Sivanto. Assail will also control cranberry fruitworm. These compounds are very effective against sucking insects. Alternatively you may use a broad-spectrum insecticide such as Diazinon or

Lannate. These broad-spectrum insecticides will also control caterpillars and other pests.

- 5) If you want to use a broad-spectrum material for caterpillars, aphids, plum curculio, etc., you should choose one of Imidan, Diazinon, Lannate, or a pyrethroid (e.g. Danitol). Imidan will control all pests normally targeted at that time, but will not control aphids. Pyrethroids can also be used but are generally weak on aphids, but control most other pests (see labels). While the pyrethroids will control plum curculio, high rates need to be used to achieve control. Pyrethroid insecticides are very toxic to natural enemies, and thus will disrupt biological control, especially aphid predators and parasitoids.
- 6) We recommend to save Exirel, Imidan, Lannate, and pyrethroids for later use against spotted wing drosophila. Also save Diazinon to control scales. This is due to restrictions in number of applications per season.

Summary of insect counts seen during the week of May 28th – June 2nd

	Leafroller/Bush	Plum Curculio/Bush	Leafroller % on shoots	Aphids % on shoots
Average	0.012	0.021	0.472	4.485
High	0.4	1.2	18	46

Summary of percent injury to fruit seen during the week of May 28th – June 2nd

	% Leafroller injury fruit	Cranberry Fruitworm % infested fruit	% Plum Curculio injury fruit
Average	0.057	0.003	0.080
High	1	0.3	1.7

Blueberry Trap Captures – Atlantic County

Week Ending	PC	CBFW	SNLH	BBM	SWD
5/26	0.43	0.0			
6/2	0.43	0.0			

Blueberry Trap Captures – Burlington County

Week Ending	PC	CBFW	SNLH	BBM	SWD
5/26	1.67	0.18			
6/2	0.67	0.16			

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Cooperating Agencies: Rutgers, The State University of New Jersey, U.S. Department of Agriculture, and County Boards of Chosen Freeholders. Rutgers Cooperative Extension, a unit of the Rutgers New Jersey Agricultural Experiment Station, is an equal opportunity program provider and employer.

Helpful Resources for New Jersey Licensed Pesticide Applicators



1. Rutgers University New Jersey Agricultural Experiment Station (NJAES) Cooperative Extension website: <http://njaes.rutgers.edu/>. NJAES Fact Sheets and publications are available online and updated routinely at <http://njaes.rutgers.edu/pubs/>.
2. Rutgers University NJAES Plant & Pest Advisory: <http://plant-pest-advisory.rutgers.edu/>. Timely seasonal updates focusing on insects, diseases, and weeds of importance to NJ Commercial Growers & Nursery/Landscape/Ornamental/Turf. Free. Subscribe by email or RSS.
3. Rutgers NJAES Pest Management Office: (848) 932-9802
 - a. Pesticide Safety Education Program: www.pestmanagement.rutgers.edu/PAT/ (NEWLY REVISED)
 - Pesticide Applicator Certification Requirements
 - Training for New Pesticide Applicators
 - Training Manuals
 - Pesticide Applicator Certification Exam Dates
 - Pesticide Applicator Recertification Training
 - **Pesticide Record Keeping Templates** (in Word, Excel, or pdf)
 - **Pesticide Spill Report Cards**
 - b. School IPM for New Jersey: <http://pestmanagement.rutgers.edu/school/> Includes technical resources and tools for School IPM Coordinators (downloadable Word and pdf versions of the School IPM Model Plan & Appendices).
 - c. **Worker Protection website & blog.** NEW. <http://pestmanagement.rutgers.edu/worker-protection/> Created for growers and their employees on the 2015 revised Worker Protection Standard. FREE.
4. New Jersey Department of Environmental Protection pesticide regulations (N.J.A.C. 7:30) govern the manufacture, distribution, and use of pesticides in New Jersey; see www.nj.gov/dep/enforcement/pcp/pcp-regs.htm. DEP Data Miner web portal at www.nj.gov/dep/enforcement/pcp/pcp-online.htm provides online license fee payment and reports (e.g. recertification courses, license, or certification status).

New Jersey Worker Protection Standard trainer agreement, rosters, educational pamphlets and fact sheets can be downloaded from www.nj.gov/dep/enforcement/pcp/pcp-wps.htm. Search NJ pesticide registrations at <http://www.kellysolutions.com/NJ/>.

General information: 609-984-6507. Spill report (reportable spills): 1-877-WARNDEP.
5. New Jersey Pesticide Information and Education System www.njpies.org/. The designated regional Poison Control Center with a national number: (1-800-poison1)/ (1-800-222-1222).
6. EPA Pesticides Homepage at www2.epa.gov/pesticides/.
7. EPA National Service Center for Environmental Publications (NSCEP): Download or order EPA publications (on any topic, including pesticides) online; or by phone, fax, or email. See online catalog at www.epa.gov/ncepihom/ordering.html.
8. EPA National Agricultural Compliance Center - "First stop" for information about environmental requirements that affect the agricultural community. Homepage: <http://www2.epa.gov/agriculture/agriculture-about-epas-national-agriculture-center>.
9. REVISED EPA Pesticide Poisoning Handbook 'Recognition and Management of Pesticide Poisonings' downloadable from *Can also order this handbook in hardcopy in English or Spanish from NSCEP (see #7 above)*. www.epa.gov/pesticide-worker-safety/recognition-and-management-pesticide-poisonings.
10. EPA Office of Pesticide Programs 'Pesticide Chemical Search' webpage for conventional, antimicrobial, and biopesticide active ingredients; see <http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1>. Has label product label search function <http://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1>
11. Pesticide Labels & MSDS/SDS: CDMS at www.cdms.net/manuf/manuf.asp; Agrian Label Lookup: <http://www.agrian.com/home/label-lookup/overview>.
12. National Pesticide Information Center (NPIC) provides general and technical information about pesticides; see home page at <http://npic.orst.edu/index.html>. See also their comprehensive list of pesticide manufacturers to request specific pesticide product information: <http://ace.orst.edu/info/npic/manuf.htm>.