

## 2017 CURRICULUM VITAE

**NAME:** Peter J. Jentsch

**DEPARTMENT / UNIT:** Entomology

**TITLE:** Director Hudson Valley Research Laboratory  
Senior Extension Associate / Entomologist

### CAMPUS ADDRESS:

Cornell's Hudson Valley Lab  
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## BACKGROUND

### EDUCATION

<u>Year</u>	<u>Degree</u>	<u>Major</u>	<u>Institution</u>
2005	M.S.	Entomology	University of Nebraska-Lincoln
1982	B.A.	Education	S.U.N.Y. at New Paltz, New Paltz, NY
1978	A.A.S.	Natural Resources Conservation	S.U.N.Y. at Morrisville, Morrisville, NY

### POSITION RANKS (year achieved)

Laboratory Superintendent (Nov. 2013); Director (September 2016)  
Senior Extension Associate / Entomologist (August, 2010)  
Extension Associate / Entomologist (June 01, 2006)  
Research Support Specialist II (1998)  
Research Support Specialist I (1990)  
Technician (1986)

**PRIMARY DEPARTMENTAL/ Unit PROGRAM AREA:** Entomology (Geneva)

### AREAS OF EXPERTISE (key words)

Integrated Pest Management Of Tree Fruits  
Chemical Control Of Insect Pests  
Biological Control Of Tree Fruit Insect Pests  
Organic / Bio-Pesticide Insect Pest Management  
Agricultural Invasive Insect Species Monitoring And Management

## PROFESSIONAL EXPERIENCE

<u>Year</u>	<u>Experience</u>
1982-1989	Farm Manager; Feather Farm, High Falls, NY
1985-1989	Research technician; Plant Pathology and Entomology for Cornell HVRL
1989-2006	Research Support Specialist, Cornell University's HVRL, Highland, NY
2006-Present	Senior Extension Associate, Cornell University's HVRL, Highland, NY
2013-Present	Director, Hudson Valley Research Laboratory, Highland, NY

## **Overview:**

**Appointment:** HVRL Director / Senior Extension Associate

**Directorship:** I presently oversee operations and maintenance of the Hudson Valley Research Laboratory (HVRL) as station director. Hudson Valley tree fruit growers (HVRL Inc.) own the property and laboratory, shop, cold storage facility and parking garage that comprise HVRL, having assumed full responsibility to directly support the maintenance and operations of the laboratory. The 20-acre research orchard, vineyard, pesticide facility, CSLED, field equipment and vehicles are in process of transfer from SUNY/CALS (Cornell University's College of Agriculture and Life Sciences) to HVRL. Over the past year I have worked closely with the president of an 11-member board of directors who decide on facility upgrades and maintenance for HVRL Inc, owners of the facility. Duties include working to implement agenda items, assisting in developing yearly schedules for maintenance and operations of facilities and equipment, while maintaining the CALS safety standards for lab and field operation. I consult with members and sub-committees to develop partnerships with Ag. producers, agricultural interest groups and foundations to facilitate funding requests.

**Entomologist:** I also direct the entomology program and assist the plant pathologist and horticulturalist in research and program development for CALS (Cornell University's College of Agriculture and Life Science). My position requires time allotments of 40% administrative duties and entomological research with 60% extension outreach in the areas of tree fruit (80%), vegetable (10%) and grape / small fruit (10%).

My areas of expertise lay primarily in fruit and vegetable insect pest management. As department coordinator I develop projects for studies of direct concern to the agricultural community, specifically the native and invasive pest / beneficial complex, employing both organic and conventional production systems, while submitting grant project funding requests for technical and programmatic support. I direct 7 full time and contract technical and support staff, along with volunteer and CALS undergraduates in program internships. My education in forestry, ornamental plant science, agriculture, and work experience in the mechanical arts, project development and administration coupled with my passion to serve the agricultural community provide me with the tools for a successful tenure at the HVRL station.

**Native and Invasive Insect Complex Monitoring:** Broad studies on pest and beneficial insect groups studies in a wide range of cropping systems include internal and surfacing feeding lepidopteran across multiple commodities, thrips, bulb mite, Coleoptera including plum curculio, miridae predominately plant bug, psyllidae exclusively pear psylla, Dipteran in *Tephritidae* (*Rhagoletis pomonella*) and Drosophilidae (*D. suzukii* (SWD)), Hemiptera in the family Pentatomidae including the native and invasive brown marmorated stink bug, *Halyomorpha halys* (BMSB), and other agricultural pest and beneficial insect species. A research farm provides experimental plot design for over 100 experiments on tree and small, stone and pome fruit, with rearing facilities to maintain insect pest colonies for complementing field studies with laboratory bioassay work.

**Biological control:** In pome fruit the development of biological control studies include the use of classical conservation of the predatory mite *Galendromus* (= *Typhlodromus*) *pyri* through management practices of reducing the early season use of the manzate fungicides along with the replacement of the broad spectrum insecticide pyrethroid group with less disruptive tools. Plum curculio, *Conotrachelus nenuphar* is a native pest of tree fruits in eastern North

America. CALS faculty is presently studying the use of entomopathogenic nematodes as biological control agents applied to the orchard floor as a way to reduce the endemic plum curculio population in apple. Additionally, in 2016, we employed frozen eggs of the brown marmorated stink bug, *Halyomorpha halys*, to find a native parasitoid, *Trissolcus japonicus* in the southern agricultural region of the Hudson Valley. Within the protocols in a national SCRI project, we propose to monitor the presence of the wasp, disseminating *T. japonicus* throughout the urban and agricultural regions of NYS to reduce BMSB populations causing damage to fruit and vegetable crops while reducing the presence in the urban environment.

**Attract and Kill:** We are presently studying the use of various attract and kill stations (AtK) systems to reduce injury from the invasive spotted wing drosophila, *Drosophila suzukii*, to small fruit and grape. We are also studying the use of substrate netting, impregnated with insecticide, on which we place aggregation pheromones to lure and destroy brown marmorated stink bug and plum curculio in urban and agricultural settings. These strategies are being considered for management in crops to help growers reduce insecticide use and reduce the use of pesticides in urban environments.

**Resistance Management:** Laboratory bioassay have been conducted on native foliar and *subterranean* mites, codling moth, and invasive pests including European corn borer, *Halyomorpha halys* and *Drosophila suzukii*. Serial dilutions using micro-droplet applications directed to life stages, airbrush applications to attract and kill bait stations, residual exposure of field applied insecticides and fresh spray using airbrush applications to host plants with assessments over time for response are on-going as the needs arise, often when outbreaks occur, to assess the loss of susceptibility of pest management tools. Recent findings of behavior modification and the use of Boric Acid in AtK stations for SWD management provide a resistance management approach for control in organic raspberry management programs in which few tools are available for SWD control.

**Efficacy Screening Studies:** We conduct annual field evaluations of production practices including water quality assessments (pH), sprayer calibration including speed, nozzle selection and spray pattern distribution, rate and canopy determinations and production selection based on pest presence, life stage, weather and predictive developmental modeling for pest management decision making.

Reporting of analyzed data and written observations of outcomes is completed annually for industry and grower groups, with quarterly reporting to granting agencies. Extension outreach includes public and digital presentations to producer and stakeholder groups, written, audio embedded presentations, and video information dissemination throughout the year.

## Grant Support

### Pending Grants:

(Jentsch, P; Acimovic, Dana) NYFVI Viticultural Research Toward Developing A Signature Grape For The Hudson Valley Wine Industry	04/01/17 to 3/31/18 \$149,029.00	5%
(Jentsch, P; Acimovic, Dana) Michigan Apple Commission Sunburn Management of Honeycrisp	04/01/17 to 3/31/18 \$21,200.00	5%
(Jentsch, P; Acimovic, Dana) ARDP Sunburn Management of Honeycrisp	04/01/17 to 3/31/18 \$21,200.00	5%
(Jentsch, P; Acimovic, D., Lampasona, T) ARDP Biological Control of the Brown Marmorated Stink Bug in New York State	04/01/17 to 3/31/18 \$74,441.00	25%

### Received Grants:

(Jentsch , P.) NYS Ag & Mkts ARDP BMSB Management	04/01/17 to 9/30/18 24,700.00	8%
(Agnello, A., Shields, E., Jentsch, P) NYFVI Optimizing Use of Native Persistent Nematodes for Biological Control of Plum Curculio in Organic and Conventional Apple Production	04/01/16 to 3/31/18 101,152.00 (11,384.00 Jentsch)	10%
(Jentsch, P; Acimovic, Dana) NYWGA Cabernet Franc Clone and Rootstock Selection Suitable for Hudson Valley AVA and Viticultural Techniques for Superior Fruit Quality	04/01/17 to 3/31/18 \$19,400.00	5%
(Agnello, A., Hajek, A. Young, S.I. Jentsch , P) USDA SCRI Management of Brown Marmorated Stink Bug in US Specialty Crops	9/1/2016 to 8/31/2017 \$33,266.00 Jentsch	10%
(Jentsch , P., Robinson, T.) NYS Ag & Mkts ARDP Horticultural Programming For The Eastern NY Tree Fruit Industry	04/01/17 to 9/31/17 79,934.00	8%
(Jentsch , P., Robinson, T.) NYS Ag & Mkts ARDP Sunbrn Management of Honey Crisp	04/01/16 to 9/30/17 28,745.00	8%

(Jentsch , P., Robinson, T.) NYS Ag & Mkts ARDP Horticultural Programming For The Eastern NY Tree Fruit Industry	04/01/16 to 3/31/17 61,050.00	8%
(Jentsch , P.) NYS Ag & Mkts ARDP BMSB Management	04/01/16 to 9/30/17 84,582.00	8%
(Jentsch , P., Robinson, T.) NYS Ag & Mkts ARDP Improved Competitiveness	04/01/16 to 3/31/17 6,405.00	8%
(Jentsch , P., Robinson, T.) NYS Ag & Mkts ARDP Two-Way IPM Information Exchange	04/01/16 to 3/31/17 4,592.00	8%
(Jentsch, P; Reig, G.) ARDP Bitterpit of Honeycrisp	04/01/17 to 3/31/18 5,583.00	5%
(Jentsch , P., Lampasona, T.) NEIPM Use of Attract-and-Kill Netting to control BMSB in Urban Areas	04/01/16 to 3/31/17 9,440.00	5%
(Jentsch , P., Lampasona, T.) Northeast SARE ONE16-263 A Behaviorally-Based Approach To Managing The Invasive Brown Marmorated Stink Bug, Halyomorpha halys	02/12/16 to 4/15/17 \$14,977	15 %
(Jentsch , P., Lampasona, T.) NYS Ag & Mkts Columbia County Invasive Insect Pest Monitoring, Research and Extension Outreach	11/01/16 to 10/31/17 63,197.00	8%
(Jentsch, P) NYFVI Use of Attract-and-Kill Netting to control BMSB and SWD	04/01/16 to 3/31/17 99,614.00	10%
NYFVI SWD Mgt Studies in Sm Fruit	16,000.00	
(Jentsch , P., O'Connell, J., Leffelman, C.) NYWGA Testing Wine Grape Bud Cold Hardiness	01/01/17 to 3/31/17 \$4,843	1%

(Jentsch , P., O’Connell, J., Leffelman, C.) NYWGA Testing Cluster Fruit at Veraison	01/01/17 to 3/31/17 \$2,820	1%
(Jentsch , P., Lampasona, T.) Hatch Biological control of Arthropod Pests	11/01/16 to 10/31/17 \$15,000	5%
(Jentsch , P., Lampasona, T., Rosenberger, D., Donahue, D., Cox, K.,)) NYS Ag & Mkts ARDP Development of Horticultural, Disease and Insect Pest Management Strategies to Address Severe Late Season Tall Spindle Tree Collapse in NYS Orchard Systems	04/01/16 to 3/31/17 \$24,740	15%
(Jentsch , P., Lampasona, T.) Consulting (Agrilytica / for USDA Risk Assessment)	09/15/15 to 4/01/16 \$8,250	< 2 %
(Jentsch, P; Lampasona, T) ARDP Biological Control of the Brown Marmorated Stink Bug in New York State	04/01/16 to 3/31/17 84,582.00	5 %
(Jentsch , P., Lampasona, T.) NYFVI Increasing the Efficacy and Economic Viability of Trap and Kill Systems for Invasive Agricultural Pests in NY Fruit and Vegetable Production	04/01/15 to 3/31/17 \$99,614	15 %
(Jentsch , P., Robinson, T.) NYS Ag & Mkts ARDP Horticultural Programming For The Eastern NY Tree Fruit Industry	04/01/15 to 3/31/16 \$64,000	8 %

### **Relevant Extension/Outreach Publications**

Paul K. Abram, Kim A. Hoelmer, Angelita Acebes-Doria, Heather Andrews, Elizabeth H. Beers, J. Christopher Bergh, Ric Bessin, David Biddinger, Paul Botch, Matthew L. Buffington, Mary L. Cornelius, Elena Costi, Ernest S. Delfosse, Christine Dieckhoff, Rachelyn Dobson, Zachary Donais, Matthew Grieshop, George Hamilton, Tim Haye, Christopher Hedstrom, Megan V. Herlihy, Mark S. Hoddle, Cerruti R. R. Hooks, Peter Jentsch, Neelendra K. Joshi, Thomas P. Kuhar, Jesus Lara, Jana C. Lee, Ana Legrand, Tracy C. Leskey, David Lowenstein, Lara Maistrello, Clarissa R. Mathews, Joshua M. Milnes, William R. Morrison III, Anne L. Nielsen, Emily C. Ogburn, Charles H. Pickett, Kristin Poley, John Pote, James Radl, Paula M. Shrewsbury, Elijah Talamas, Luciana Tavella, James F. Walgenbach, Rebecca Waterworth, Donald C. Weber, Celeste Welty, Nik G. Wiman, Indigenous arthropod natural enemies of the invasive brown marmorated stink bug in North America and Europe. Journal of Pest Sci DOI 10.1007/s10340-017-0891-7

Reig G., Donahue, D., Jentsch, P. Sunburn Management on Honeycrisp in the Hudson Valley in 2016. New York Fruit Quarterly . Volume 25, Number 2, Summer 2017

Jentsch, P. 2016. Assessing Attract and Kill Disks in Conventional and Organic Small Fruit Production. New York Fruit Quarterly . Volume 24, Number 4, Winter 2016  
<http://www.nyshs.org/pdf/NYFQ%202015.CMC/NYFQ%20Fall%202015.CMC/Jentsch%20Pages%20from%20NYFQ%20Book%20Fall%202015-4.pdf>

Reig G., Jentsch, P. Rosenberger, D. 2016. Effects of Sunburn Treatments on Honeycrisp in the Hudson Valley In 2015. New York Fruit Quarterly . Volume 24 . Number 3 . Fall 2016  
<http://nyshs.org/wp-content/uploads/2016/10/Reig-Pages-5-10-from-NYFQ-Book-Fall-2016.pdf>

Finger On The Scales. Scaffolds Fruit Journal 25(12). On-line.  
<http://www.scaffolds.entomology.cornell.edu/2016/SCAFFOLDS-6-6-16.pdf>

Pre-bloom Management of the Insect Pest Complex in the Hudson Valley  
<http://www.scaffolds.entomology.cornell.edu/2016/SCAFFOLDS-4-18-16.pdf>

Psylla on the Wing. Scaffolds Fruit Journal 25(4). On-line.  
<http://www.scaffolds.entomology.cornell.edu/2016/SCAFFOLDS-4-11-16.pdf>

Nailing Scale: SJS and White Pernicula Scale Management. Scaffolds Fruit Journal 25(2). On-line.  
<http://www.scaffolds.entomology.cornell.edu/2016/SCAFFOLDS-3-28-16.pdf>

Leafhopper and ECB damage increasing: Maintain terminal growth of newly planted trees. June 16th  
<https://blogs.cornell.edu/jentsch/2015/06/16/leafhopper-and-ecb-damage-increasing-maintain-terminal-growth-of-newly-planted-trees/>

Meeting Invitation: RIMpro forecasting for apple scab and fire blight Mgt. in 2017 @ HVRL, Thursday, 2nd February 2017 at 10 am.  
<http://blogs.cornell.edu/jentsch/2017/01/17/meeting-invitation-rimpro-forecasting-for-apple-scab-and-fire-blight-mgt-in-2017-hvrl-thursday-2nd-february-2017-at-10-am/>  
Upcoming Apple Forum at the Hudson Valley Research Laboratory: Dec. 20, 2016 10:30AM.  
<http://blogs.cornell.edu/jentsch/2016/12/05/upcoming-apple-forum-at-the-hudson-valley-research-laboratory-dec-20-2016-1030am/>

2016 Post Harvest Fruit Injury Assessments: Insect Damage to Apple  
<http://blogs.cornell.edu/jentsch/2016/11/11/2016-post-harvest-fruit-injury-assessments-insect-damage-to-apple/>

BMSB News: The Invasive Parasitic Wasp, *Trissolcus japonicus*, Recently Found in New York State.  
<http://blogs.cornell.edu/jentsch/2016/09/19/bmsb-news-the-invasive-parasitic-wasp-trissolcus-japonicus-recently-found-in-new-york-state/>

BMSB Update: 1st & 2nd Gen. Feeding on Pear.  
<http://blogs.cornell.edu/jentsch/2016/09/09/bmsb-update-1st-2nd-gen-feeding-on-pear/>

It's Not Over: BMSB in NY Hot Spots  
<http://blogs.cornell.edu/jentsch/2016/09/05/its-not-over-bmsb-in-ny-hot-spots/>

Late Season Resistance Management: Apple Maggot

<http://blogs.cornell.edu/jentsch/2016/09/01/late-season-resistance-management-apple-maggot/>

Insect Injury at Harvest: 2016

<http://blogs.cornell.edu/jentsch/2016/08/19/insect-injury-at-harvest-2016/>

Leaf Browning & Two-spotted Spider Mite.

<http://blogs.cornell.edu/jentsch/2016/08/04/leaf-browning-two-spotted-spider-mite/>

BMSB: A Vanishing Act.

<http://blogs.cornell.edu/jentsch/2016/08/01/bmsb-a-vanishing-act/>

Mid-Season Boredom: European Corn Borer & Newly Planted Apple.

<http://blogs.cornell.edu/jentsch/2016/07/29/mid-season-boredom-european-corn-borer-newly-planted-apple/>

BMSB: Bifenthrin Section 18 Renewal in New York for 2016.

<http://blogs.cornell.edu/jentsch/2016/07/14/bmsb-bifenthrin-section-18-renewal-in-new-york-for-2016/>

Codling Moth: The 2nd Generation

<http://blogs.cornell.edu/jentsch/2016/07/11/codling-moth-the-2nd-generation/>

Apple Maggot: Adult Emergence After Recent Rains.

<http://blogs.cornell.edu/jentsch/2016/07/11/apple-maggot-adult-emergence-after-recent-rains/>

Scouting for Scale: Seek and Ye Shall Find.

<http://blogs.cornell.edu/jentsch/2016/06/15/scouting-for-scale-seek-and-ye-shall-find/>

Pear Psylla: Critical Management Timing for 2nd Generation.

<http://blogs.cornell.edu/jentsch/2016/06/13/pear-psylla-critical-management-timing-for-2nd-generation/>

PC Waning: Coding Moth and Obliquebanded Leafroller waxing.

<http://blogs.cornell.edu/jentsch/2016/06/03/pc-waning-coding-moth-and-obliquebanded-leafroller-waxing/>

Beetles and Moths on the Wing.

<http://blogs.cornell.edu/jentsch/2016/05/23/beetles-and-moths-on-the-wing/>

Apple Pest Management After a Long Cool Bloom: Petal Fall.

<http://blogs.cornell.edu/jentsch/2016/05/10/apple-pest-management-after-a-long-cool-bloom-petal-fall/>

Pear Psylla: Early Management Makes A Difference.

<http://blogs.cornell.edu/jentsch/2016/04/19/pear-psylla-early-management-makes-a-difference/>

Bud Damage Assessments of Hudson Valley Apple: April 15th, 2016.



<http://blogs.cornell.edu/jentsch/2016/04/15/bud-damage-assessments-of-hudson-valley-apple-april-15th-2016/>

Flower Bud Damage Assessments of Hudson Valley Apple; April 8th, 2016.

<http://blogs.cornell.edu/jentsch/2016/04/09/flower-bud-damage-assessments-of-hudson-valley-apple-april-8th-2016/>

Hudson Valley Research Laboratory Annual Membership Meeting: March 31st, 2016 at 4:00 PM.

<http://blogs.cornell.edu/jentsch/2016/03/29/hudson-valley-research-laboratory-annual-membership-meeting-march-31st-2016-at-400-pm-2/>

What's New For 2016? Fewer New Insecticides On The Horizon; Continued Insecticide Losses.

March 18, 2016 <http://blogs.cornell.edu/jentsch/2016/03/>

Green Tip: Beginning to show in NY2. 3.11.16

March 12, 2016 <http://blogs.cornell.edu/jentsch/2016/03/>

Hudson Valley Stone Fruit: '16 Spring Bud Status

March 12, 2016 <http://blogs.cornell.edu/jentsch/2016/03/>

Psylla on the Wing. March 11th, 2016

March 11, 2016 <http://blogs.cornell.edu/jentsch/2016/03/>

Managing San Jose scale to prevent fruit loss in 2016.

March 7, 2016 <http://blogs.cornell.edu/jentsch/2016/03/>

Grape Bud Cold-Hardiness Update. Bud losses in Cab Franc observed.

March 7, 2016 <http://blogs.cornell.edu/jentsch/2016/03/>

Hudson Valley Stone Fruit: '16 Spring Bud Status

<http://blogs.cornell.edu/jentsch/2016/03/12/hudson-valley-stone-fruit-16-spring-bud-status/>

Dr. Srdjan Acimovic Joins the Hudson Valley Research Laboratory as Our New Tree Fruit

Pathologist. <http://blogs.cornell.edu/jentsch/2016/02/22/dr-srdjan-acimovic-joins-the-hudson-valley-research-laboratory-as-our-new-tree-fruit-pathologist/>

Dr. Srdjan Acimovic, candidate for the Plant Pathologist position at the HVRL, presenting on January

26th at 2:00 PM. January 22, 2016 <http://blogs.cornell.edu/jentsch/2016/01/>

Video presentation by Dr. Srdjan Acimovic, plant pathology extension made on Jan. 26th 2016

<http://blogs.cornell.edu/jentsch/2016/01/27/video-presentation-by-dr-srdjan-acimovic-plant-pathology-extension-made-on-jan-26th-2016/>

Bud Freezing Temperature Monitoring for 2015-2016 Underway

January 22, 2016 <http://blogs.cornell.edu/jentsch/2016/01/>

Northeast Disease Management Summit: FDR Memorial Library, Hyde Park, NY on March 14th, 2016. <http://blogs.cornell.edu/jentsch/2016/01/21/northeast-disease-management-summit-fdr-memorial-library-hyde-park-ny-on-march-14th-2016/>

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Leskey, Tracy C. et. al. 2015. Attraction of the invasive *Halyomorpha halys* Stål (Hemiptera: Pentatomidae) to traps baited with pheromonal and kairomonal stimuli across the United States. *Environmental Entomology*, 44(3), 746-756.

Jentsch 2015. A New Threshold-Based Management Tool for Brown Marmorated Stink Bug in NY. *New York Fruit Quarterly* . Volume 23, Number 3, Fall 2015  
<http://www.nyshs.org/pdf/NYFQ%202015.CMC/NYFQ%20Fall%202015.CMC/Jentsch%20Pages%20from%20NYFQ%20Book%20Fall%202015-4.pdf>

Jentsch 2015. Leafhopper and ECB damage increasing: Maintain terminal growth of newly planted trees. June 16th <https://blogs.cornell.edu/jentsch/2015/06/16/leafhopper-and-ecb-damage-increasing-maintain-terminal-growth-of-newly-planted-trees/>

Trunk Borer Management Update: Lorsban (chlorpyrifos) at Risk of Revoked Tolerances in 2016. <http://blogs.cornell.edu/jentsch/2015/11/05/trunk-borer-management-update-lorsban-chlorpyrifos-at-risk-of-revoked-tolerances-in-2016/>

Jentsch 2015. Leafroller Management: Finding the (re) application window. June 16th <https://blogs.cornell.edu/jentsch/2015/06/16/leafroller-management-finding-the-re-application-window/>

Jentsch 2015. If You're In The Open...Get Covered.....CM, SJS & PLH Mgt.....OBLR June 14th.!. June 10th <https://blogs.cornell.edu/jentsch/2015/06/10/if-youre-in-the-open-get-covered-cm-sjs-plh-mgt/>

Jentsch 2015. Curculio migration continues as codling moth eggs develop. Stayed covered!. May 25<sup>th</sup>. <https://blogs.cornell.edu/jentsch/2015/05/25/curculio-migration-continues-as-codling-moth-eggs-develop-stayed-covered/>

Jentsch 2015. Black Stem Borer found in 'Pink Lady' apple, Highland NY. May 24<sup>th</sup>. <https://blogs.cornell.edu/jentsch/2015/05/24/black-stem-borer-found-in-pink-lady-apple-highland-ny/>

Jentsch 2015. Drought Forecast: Stink bug on the rise. May 14<sup>th</sup>. <https://blogs.cornell.edu/jentsch/2015/05/14/drought-forecast-stink-bug-on-the-rise/>

Jentsch 2015. Plum Curculio Damage on Cherry & Pear Increasing. May 11<sup>th</sup>. <https://blogs.cornell.edu/jentsch/2015/05/11/plum-curculio-damage-on-cherry-pear-11-may/>

Jentsch 2015. PC management in apricot: Earlier than in apple! May 7<sup>th</sup>. <https://blogs.cornell.edu/jentsch/2015/05/07/pc-management-in-apricot-earlier-than-in-apple/#respond>

Pink: To Spray or Not To Spray (GFW): (Scouting Report) April 30<sup>th</sup>  
<https://blogs.cornell.edu/jentsch/2015/04/30/pink-spray-or-not-to-spray-fruit-worm-complex/>

Jentsch 2015. Pink: To Spray or Not To Spray (TPB): (Scouting Report) April 27<sup>th</sup>  
<https://blogs.cornell.edu/jentsch/2015/04/27/pink-spray-or-not-to-spray-tpb/>

Jentsch 2015. Dogwood Borer and Scale, Not to be Taken Lightly: (Scouting Report) April 24<sup>th</sup>  
<https://blogs.cornell.edu/jentsch/2015/04/24/dogwood-borer-and-scale-not-to-be-taken-lightly/>

Jentsch 2015. Tree Fruit Management @ ½” Green: (Scouting Report) April 20<sup>th</sup>  
<https://blogs.cornell.edu/jentsch/2015/04/06/pear-psylla-hunt-finds-first-eggs/>

Jentsch 2015. Pear Psylla Hunt Finds First Eggs: April 6<sup>th</sup>  
<https://blogs.cornell.edu/jentsch/2015/04/06/pear-psylla-hunt-finds-first-eggs/>

Jentsch P. J. 2015. Bifenthrin Sec. 18 Again Approved Against BMSB In Hudson Valley Scaffolds Fruit Journal 24(20). On-line. <http://www.scaffolds.entomology.cornell.edu/2015/SCAFFOLDS%208-10-15.pdf>

Jentsch P. J. 2015. Brown Marmorated Stink Bug: Field Confusion. Scaffolds Fruit Journal 24(19). On-line. <http://www.scaffolds.entomology.cornell.edu/2015/SCAFFOLDS%208-3-15.pdf>

Jentsch P. J. 2015. San Jose Scale Emergence. Scaffolds Fruit Journal 24(11). On-line. <http://www.scaffolds.entomology.cornell.edu/2015/SCAFFOLDS%206-8-15.pdf>

Jentsch P. J. 2015. Pre-bloom Problems. Scaffolds Fruit Journal 24(4). On-line. <http://www.scaffolds.entomology.cornell.edu/2015/SCAFFOLDS%204-20-15.pdf>

Jentsch P. J. 2015. Pear Psylla Hunt Finds First Eggs In The Hudson Valley. Scaffolds Fruit Journal 24(3). On-line. <http://www.scaffolds.entomology.cornell.edu/2015/SCAFFOLDS%204-13-15.pdf>

#### Technical Reports:

Jentsch, P. J. 2016. [Results of Insecticide and Acaricide Studies in Eastern New York](#). Cornell University's Hudson Valley Laboratory Pub. # HV2015. On-line.

Jentsch, P. J. 2015. Results of Insecticide and Acaricide Studies in Eastern New York. Cornell University's Hudson Valley Laboratory Pub. # HV2015.

#### **EXTENSION/OUTREACH RESPONSIBILITIES**

- **Current Program Work Team(s)/Program Councils, Administrative Leadership (positions related to Extension, i.e., principal organizer, co-chair, speaker, etc.)**

Active participant in the Cornell Fruit PWT and its Tree Fruit subgroup

- **Extension Workshops and Conferences (development, participation-list date and duration, title, constituency [i.e., stakeholder group, etc.] and size of audience, i.e. number of attendees and your role, i.e., principal organizer, co-chair, speaker, etc.)**

**Out-of-State Producer and Professional Meeting Presentations: (2015-2017)**

[Monitoring, Modeling And Managing The Lepidopteran Complex](#), Vermont Tree Fruit Growers' Association, Middlebury, Vermont Thursday, Feb 16, 2017 (30 min.; 45 Fruit growers, fruit extension educators, and private consultants; total contact hours = 23)

[2016 Insect Pest Management Round-up](#). Vermont Tree Fruit Growers' Association, Middlebury, Vermont Thursday, Feb 16, 2017 (30 min.; 45 Fruit growers, fruit extension educators, and private consultants; total contact hours = 23)

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Developing Attract-and-kill Strategies To Manage Spotted Wing Drosophila, *Drosophila Suzukii* Matsumara, In Raspberry. December 2, 2016; 2016 Cumberland Shenandoah Fruit Workers Conference. Winchester, VA , (30 min.; 74 attendees primarily reseachers, chemical field reps. 37 contact hours).

Assessing the neonicotinoid Sulfoxaflor to reduce BMSB feeding on late season apple. December 2, 2016; 2016 Cumberland Shenandoah Fruit Workers Conference. Winchester, VA , (30 min.; 74 attendees primarily reseachers, chemical field reps. 37 contact hours).

Assessing the neonicotinoid Sulfoxaflor to reduce BMSB feeding on late season apple. November 30, 2016. Brown Marmorated Stink Bug IPM Working Group Meeting. Alson H. Smith Jr. Agriculture Research and Extension Center in Winchester, VA , (20 min.; 55 attendees primarily researchers, chemical field reps. 18 contact hours).

Developing Attract-and-kill Strategies To Manage Spotted Wing Drosophila, *Drosophila Suzukii* Matsumara, In Raspberry. October 18-19, 2016; 78th Annual New England, New York and Canadian Fruit Pest Management Workshop BBCC, Burlington, VT , (30 min.; 72 attendees primarily researchers, extension staff and chemical field reps. 32 contact hours).

Developing attract and kill strategies to manage spotted wing drosophila, *Drosophila suzukii* Matsumara, in organic raspberry and blueberry. September 30th 2016. 2016 XXV International Congress of Entomology, Orlando, Florida, USA | September 25-30 <https://esa.confex.com/esa/ice2016/meetingapp.cgi/Paper/108686> , (12 min.; 35 attendees primarily entomological students and researchers. 7 contact hours).

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Management Strategies for the Pear Psylla, *Cacopsylla pyricola* (foerster) in Northeast Pear Orchards. December 1, 2015 , The Connecticut Pomological Society Annual Meeting , (30 min.; 90 attendees primarily growers, chemical field reps. 45 contact hours). <http://cfgrower.com/the-connecticut-pomological-society-meeting/>

Development of Attract and Kill Strategies of Spotted Wing drosophila for Organic Raspberry Production in NY. March 14-17, 2015, *Entomological Society of America Eastern Branch Meeting*, Atlantic Sands Hotel & Conference Center, Rehoboth, DE , (30 min.; 40 attendees primarily growers . 20 contact hours).

Management of the Brown Marmorated Stink Bug. January 30<sup>th</sup>, 2015; *New England Vegetable and Fruit Conference in Hudson, MA*, (30 min.; 110 attendees primarily growers; . 55 contact hours).

Management of the Spotted Wing Drosophila. January 30<sup>th</sup>, 2015; *New England Vegetable and Fruit Conference in Hudson, MA*, (30 min.; 110 attendees primarily growers).

### **In-State Producer and Professional Meeting Presentations: (2015-2017)**

[2016 Insect Pest Management Round-up](#). Hudson Valley Commercial Fruit Growers' School, February 14-15, 2017 Best Western Plus Hotel 503 Washington Avenue, Kingston, NY 12401 (30 min.; 175 Fruit growers, fruit extension educators, and private consultants; total contact hours = 88)

Biological Control of the Brown Marmorated Stink Bug in New York State. November 22, 2016. Advisory Board of the New York State Apple Research and Development Program (ARDP), New York State Agricultural Experiment Station, Jordan Hall, Geneva, NY. (20 min. 18 Fruit growers, fruit extension educators, and faculty; total contact hours = 6)

Transitions, Partnerships and the Resilient Farm. April, 9<sup>th</sup> 2016. HVRL, Highland, NY (40 min. 25 Fruit growers, fruit extension educators, and private consultants; total contact hours = 16)

Challenges in Managing Invasive Insect Pests and Conserving the Pollinator Complex March 22<sup>nd</sup> , 2016 2016 Recertification Day, Kingston, NY (40 min.; 52 Fruit growers, fruit extension educators, and private consultants; total contact hours = 34)

#### **SWD Management in Grape**

February 18<sup>th</sup> , 2016 2016 Commercial Tree Fruit Schools, Kingston, NY (30 min.; 45 Fruit growers, fruit extension educators, and private consultants; total contact hours = 23)

#### **IFTA Travel Log – Washington State Apple Production Region**

February 17<sup>nd</sup> , 2016 2016 Commercial Tree Fruit Schools, Kingston, NY (30 min.; 208 Fruit growers, fruit extension educators, and private consultants; total contact hours = 104)

#### **Review of the 2015 Insect Pest Management Season in ENY**

February 17<sup>th</sup> , 2016 2016 Commercial Tree Fruit Schools, Kingston, NY (30 min.; 208 Fruit growers, fruit extension educators, and private consultants; total contact hours = 104)

#### **Hudson Valley Research Laboratory Review for 2015**

February 16<sup>th</sup> , 2016 2016 Commercial Tree Fruit Schools, Kingston, NY (30 min.; 208 Fruit growers, fruit extension educators, and private consultants; total contact hours = 104)

[http://rvpadmin.cce.cornell.edu/uploads/doc\\_383.pdf](http://rvpadmin.cce.cornell.edu/uploads/doc_383.pdf)

#### **IFTA Travel Log – Washington State Apple Production Region**

*February 15<sup>st</sup>, 2016 2016 Commercial Tree Fruit Schools, Lake George, NY (30 min.; 58 Fruit growers, fruit extension educators, and private consultants; total contact hours = 26)*

Review of the 2015 Insect Pest Management Season in ENY

*February 15<sup>st</sup>, 2016 2016 Commercial Tree Fruit Schools, Lake George, NY (30 min.; 58 Fruit growers, fruit extension educators, and private consultants; total contact hours = 26)*

Brown Marmorated Stink Bug, *Halyomorpha halys* (Stål): What can we expect in 2016

*February 2, 2016 Lake Ontario Winter Fruit Schools, Niagara County CCE Training Center, Lockport, NY (30 min.; 200 Fruit growers, fruit extension educators, and private consultants; total contact hours = 133)*

Brown Marmorated Stink Bug, *Halyomorpha halys* (Stål): What can we expect in 2016

*February 2, 2016 Lake Ontario Winter Fruit Schools, Newark Garden Hotel, Newark, NY (30 min.; 200 Fruit growers, fruit extension educators, and private consultants; total contact hours = 133)*

General Insect Management; Tree Decline and Collapse from Dogwood and Black Stem Borer.

*January 14<sup>th</sup>, 2016 Long Island Ag. Forum, Suffolk CCC, Riverhead, NY (30 min.; 34 Fruit growers, fruit extension educators, and private consultants; total contact hours = 17)*

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Emerging Insect Problems On Tree Fruit In Eastern New York

*January 8<sup>th</sup>, 2015 Long Island Ag. Forum, Suffolk CCC, Riverhead, NY (30 min.; 36 Fruit growers, fruit extension educators, and private consultants; total contact hours = 18)*

Emerging Invasive Insects In Eastern New York

*July. 21, 2015, Fire Training Center, 9 Training Center Lane, New Hampton, NY (30 min.; 35 USDA-APHIS-PPQ-PDC evaluation control team members/ Ag. & Mkts staff; total contact hours = 18)*

Insecticide Resistance Strategies for managing Spotted Wing Drosophila

*March 4, 2015, Clarion Hotel, 8250 Park Road, Batavia, NY (30 min.; 55 conventional organic fruit and vegetable growers, extension educators; total contact hours = 28)*

Biological Control of Spotted Wing Drosophila in the Hudson Valley of NY State.

*Mar. 4, 2015, Clarion Hotel, 8250 Park Road, Batavia, NY (30 min.; 55 conventional organic fruit and vegetable growers, extension educators; total contact hours = 28)*

Insecticide Resistance Strategies for managing Spotted Wing Drosophila;

*Jan. 14, 2015, CCE Albany County, 24 Martin Road, Voorheesville, NY (30 min.; 55 conventional organic fruit and vegetable growers, extension educators; total contact hours = 28)*

Biological Control of Spotted Wing Drosophila in the Hudson Valley of NY State.

*Jan. 14, 2015, CCE Albany County, 24 Martin Road, Voorheesville, NY (30 min.; 55 conventional organic fruit and vegetable growers, extension educators; total contact hours = 28)*

**Internet extension field based ‘on-demand’ video presentations via web streaming:**

Mounted and accessed on the Hudson Valley Regional Fruit website:

<https://www.youtube.com/watch?v=5ZSE0vr3bZo>

1. Stage 1: Classical Biological Control of BMSB in New York. Mar 22, 2017
2. Statewide Monitoring of Spotted Wing Drosophila; Aug 8, 2016
3. Attract and Kill (ATK) Station Design HD; Aug 8, 2016
4. Invasive Species: Spotted Wing Drosophila HD; Aug 8, 2016
5. Testing the Population of Nematodes HD; Aug 8, 2016
6. Processing Soil Bio-assays for the Presence of Persisting Entomopathogenic Nematodes HD; Aug 8, 2016
7. Nematode Establishment and Persistence HD; Aug 8, 2016
8. Nematode Field Sampling HD; Aug 8, 2016
9. Cultivation of Plum Curculio HD; Aug 8, 2016
10. Biological Control: Entomopathogenic Nematodes (EPNs) HD; Aug 8, 2016
11. Biological Control: Trissolcus Japonicus HD; Aug 5, 2016
12. Brown Marmorated Stink Bug (BMSB) Cultivation HD; Aug 5, 2016
13. Dogwood Borer (DWB) monitoring and management HD; Aug 5, 2016
14. Apple Production Compromised by Dogwood Borer (DWB) HD; Aug 5, 2016

**Development of the Hudson Valley Laboratory web site:**

Administered the design and layout, photography and use of the Hudson Valley Laboratory website for faculty and staff to disseminate articles, PowerPoint presentations in html and pdf formats.

<http://www.nysaes.cornell.edu/hudson/program.php>

**Professional Development Activities**

**Meetings and Conferences:**

National Meetings of the Entomological Society of America 2016

Eastern Branch Meetings of the Entomological Society of America

92<sup>th</sup> Annual Cumberland-Shenandoah Fruit Workers Conference, Winchester, VA. 2016.

Northeast IPM Brown Marmorated Stink Bug Working Group Meetings, Alson H. Smith Research and Extension Center, Virginia Agriculture Experiment Station, Winchester, VA., 2015-16

New England, New York, Canadian Fruit Pest Management Workshop. Burlington Vt.. 2015-16

USDA NIFA SCRI CAP Brown Marmorated Stink Bug Project Stakeholder Advisory Panel Meeting, Kearneysville, WV. 2015

Hudson Valley Fruit School, Kingston, NY 2015-16

Lake Champlain Fruit School, Lake George, NY. 2015

**Professional Societies**

New York State Horticultural Society

Entomological Society of America

International Fruit Tree Association