

2021 CURRICULUM VITAE

Peter J. Jentsch

MISSION: Entomological Research, Consulting & Outreach for Commercial and Heirloom Tree Fruit Producers

Title: Executive Director – Poma Tech Inc. a 501(c)(3)

Office / Laboratory Address:

HVRL
P.O. BOX 727, 3357 Rte. 9W
Highland, NY 12528

322 Mountain Rd.
Rosendale, NY 12472

Cell: 845-417-7465

E-Mail: pjentsch24@gmail.com

Background

Education

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

POSITION RANKS (year achieved)

Cornell AgriTech - Hudson Valley Research Laboratory
Superintendent (Nov. 2013); Director (September 2016-2021)
Senior Extension Associate / Entomology (August, 2010)
Extension Associate / Entomology (June 01, 2006)
Research Support Specialist II (1998); Research Support Specialist I (1990), Technician (1986)

AREAS OF EXPERTISE (key words)

Integrated Pest Management Of Tree, Small Fruits and Vegetable Crops
Chemical, Organic / Bio-Pesticide and Biological Management of the Insect Pest Complex
Agricultural Invasive Insect Species Monitoring And Management

PROFESSIONAL EXPERIENCE

Year	Experience
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
2006-2021	Sr. Extension Associate, Entomology, Cornell University, Highland, NY
2013-2021	Director Hudson Valley Research Laboratory, Highland, NY
2021-Present	Executive Director of Poma Tech Inc. Board of Directors



Overview: I presently reside as the Executive Director of Poma Tech Inc. for the Board of Directors and as such, work closely with the 4-member board of directors to assist in developing yearly programming. I work with the agrichemical industry partners, agricultural producers, agricultural interest groups and foundations for funding to support the mission of the program. I direct the entomology programming in research development through agricultural industry efficacy screening studies and grant programs, develop consulting contracts for commercial and heirloom tree fruit growers and produce programming for educational outreach. My position requires time allotments of 40% administrative duties and entomological research with 60% extension outreach in the areas of tree fruit (80%). My areas of expertise lay primarily in fruit culture insect pest management and biological control.

Research Responsibilities

The *mission* of the Poma Tech Inc. research program is to establish close working relationships with regional agricultural producers, focusing on management of the insect and disease pest complex causing economic injury to crops. As program development lead, project development for studies of direct concern to the agricultural community are a priority. Specific focus on the native and invasive pest and beneficial complex across commodities, employing both organic and conventional production systems, acquiring grant funding for technical and programmatic support is conducted annually. Presently the Jentsch Lab supports 1 full time contracted technical support staff. My background in forestry, ornamental plant science, agriculture, and work experience in the mechanical arts, secondary education, project development and administration, coupled with passion to serve the agricultural community, provides Poma Tech Inc. with the tools needed for a successful effort in Ag research and outreach. During our tenure, the broad scope of studies on pest and beneficial insect groups in tree fruit production systems include internal and surfacing feeding lepidopteran, 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), plant hopper in Fulgoridae (Spotted lanternfly (SLF) *Lycorma delicatula*) and other agricultural pest and beneficial insect species. Rearing facilities at the HVRL provide insect pest colonies for complementing field studies and laboratory bioassay work. Annual reporting incorporates analyzed data and written observations of outcomes to industry and our grower community with on-demand access, with quarterly and annual reporting provided to granting agencies. Outreach includes public and digital presentations to producer and stakeholder groups, written, audio embedded presentations and video information dissemination. Collaborations with regional and national university based and USDA faculty has provided cooperative opportunities in invasive pest research programming leading to peer-reviewed publications, in and out of state presentation requests.

Extension Responsibilities:

The *mission* of my extension program is to establish close working relationships with regional growers, stakeholders, agrichemical industry representatives, agricultural research and extension personnel, within the pome fruit industries. Working with these groups to develop insect pest management strategies that will be efficacious and cost effective, conserving biological control agents with emphasis on the mite predatory complex, while paying close attention to the perceptions of, and dialoging with, the non-agricultural community in Eastern NY is essential in maintaining a positive working relationship while addressing concerns of the 'neighboring' public. Recent media coverage and Citizen Science biological control efforts has developed

strong relationships with the general public who view our agricultural efforts as sustainable solutions to urban insect pestilence.

Maintaining a close relationship with agrichemical industry representatives, CCE regional and state extension staff, I have by request, made presentations to stakeholders, private industry groups and producers, to both in-state and out-of-state audiences. These include presentations to researchers and regional fruit growers on insect biology and control advances from 1994-2020 at the annual Hudson Valley and Lake Champlain Commercial Fruit Schools, now held in Albany, NY; Long Island Ag. Expo in Riverhead, NY, SW Horticultural Days in Benton Harbor, Michigan, NEVFC in NH, Lewiston Auburn College, Lewiston ME and Middletown, CT., Eastern Branch Entomological Society of America, the NY, NE, Can. Fruit Research Mtg., Burlington. VT. and Great Lakes Fruit Workers meetings in the US and Canada and Cumberland-Shenandoah Fruit Meeting, Winchester, VA.

Extension outreach to homeowners:

I continue to write entomologically relevant articles and contribute to interviews for regional newspapers and magazines on insects of regional interest, concerning regional insect concerns and activity, on a seasonal basis. Most of which have focused on the invasive pest complex. Our engagement with the general public through our Citizen Science portal has provided detailed locations of BMSB over the past 10 years and our Samurai Wasp project re-distribution is still on the increase.

Grant Support

Pending Grants:

(Jentsch, P.) SCRI-BMSB Integrating improved tools and tactics into customized IPM programs for BMSB in select specialty crops	09/30/21 to 09/29/23 (Total: \$ \$272,096 of 8,000,000)	15 %
(Jentsch , P.) NYS Ag & Mkts ARDP Biological Control of the Brown Marmorated Stink Bug In New York State	04/01/21 to 3/31/22 \$59,981	8 %
(Jentsch , P.) NYFVI 022 Addressing The Loss of Chlorpyrifos To Manage Insect Pest Infestation In NY Apple Orchards	04/01/22 to 3/31/24 \$124,950	8 %

Received Grants:

(Jentsch , P. Brown, L.) NYFVI 19 017 Expanding the Range for Establishing the Samurai Wasp, Trissolcus Japonicus in Orchards and Vegetable Crops of NYS	04/01/19 to 3/31/20 \$124,099	8 %
(Jentsch, P; O’Connell, J., NYS IPM) SCRI Biology, Management and Reducing the Impact of the Spotted Lanternfly in Specialty Crops in the Eastern USA	09/30/20 to 09/29/23 (Total: \$181,395 of 935,003)	5 %
(Jentsch , P. Brown, L.)	04/01/19 to 3/31/20	8 %

NYS Ag & Mkts ARDP	\$118,894	
Expanding the Range for Establishing the Samurai Wasp, Trissolcus Japonicus in Orchards and Vegetable Crops of NYS		
(Jentsch , P. Brown, L., Canino L.)	9/01/2016 to 8/31/2021	20 %
NIFA-USDA	\$186,372	
Management of the Brown Marmorated Stink Bug in US Specialty Crops		
(Acimovic, D., Jentsch , P., Robinson, T.)	04/01/19 to 3/31/20	8 %
NYS Ag & Mkts ARDP	\$79,934	
Horticultural Programming For The Eastern NY Tree Fruit Industry		
(Jentsch , P., Robinson, T. Acimovic, D)	04/01/18 to 3/31/19	8 %
NYS Ag & Mkts ARDP	\$79,934	
Horticultural Programming For The Eastern NY Tree Fruit Industry		
(Jentsch, P; Acimovic, D.)	04/01/18 to 3/31/19	5 %
NYWGA	\$19,400.00	
Cabernet Franc Clone and Rootstock Selection Suitable for Hudson Valley AVA and Viticultural Techniques for Superior Fruit Quality		
(Jentsch, P; Nyrop, J.)	04/01/18 to 3/31/19	5 %
HATCH	\$15,000	
Biological Control of Arthropod Pests (T.japonicus_BMSB)		
(Jentsch, P; Acimovic, D.)	04/01/17 to 3/31/18	5 %
NYWGA	\$19,400.00	
Cabernet Franc Clone and Rootstock Selection Suitable for Hudson Valley AVA and Viticultural Techniques for Superior Fruit Quality		
(Jentsch, P; Acimovic, Dana)	04/01/17 to 3/31/18	5 %
ARDP	\$21,200.00	
Sunburn Management of Honeycrisp		
(Jentsch, P; Acimovic, D., Lampasona, T)	04/01/17 to 3/31/18	25 %
ARDP	\$43,746.00	
Biological Control of the Brown Marmorated Stink Bug in New York State		
(Jentsch , P., Lampasona, T.)	09/01/17 to 8/31/20	25 %
Local Economies Project & NOVO Foundation	\$100,000.00	
Programming Development and Operations of the Hudson Valley Research Laboratory		
Rejected		
(Jentsch, P; Acimovic, D.)	04/01/18 to 3/31/20	10 %
NYFVI	149,950.00	
Expanding the Range for Establishing the Samurai Wasp, Trissolcus japonicus in Orchards and Vegetable Crops of NYS		

Relevant Extension/Outreach Publications

New York Fruit Quarterly

Establishment, Persistence and Impact of Native NY Entomopathogenic Nematodes on Plum Curculio In Apples. Arthur Agnello, Peter Jentsch, Elson Shields, Tony Testa, and Tessa Lessord. New York Fruit Quarterly. Volume 28, Number 4, Winter 2019

Jentsch, P. 2017. Expanding the Range of the Samurai Wasp, *Trissolcus japonicus*, in New York Orchards. New York Fruit Quarterly. Volume 25, Number 2, Winter 2017

Scaffolds Fruit Journal

Provide weekly pheromone trap updates and timely articles on insect pest management of pome fruit in NY's Hudson Valley.

Management Options For The Stink Bug Complex On Pome Fruit Near Harvest. August 24, 2020 Volume 29, No. 23. [Http://Www.Scaffolds.Entomology.Cornell.Edu/2020/SCAFFOLDS-8-24-20.Pdf](http://Www.Scaffolds.Entomology.Cornell.Edu/2020/SCAFFOLDS-8-24-20.Pdf)

Brown Marmorated Stink Bug: Moving Into Hudson Valley Orchards Under Drought. August 17, 2020 Volume 29, No. 22
[Http://Www.Scaffolds.Entomology.Cornell.Edu/2020/SCAFFOLDS-8-17-20.Pdf](http://Www.Scaffolds.Entomology.Cornell.Edu/2020/SCAFFOLDS-8-17-20.Pdf)

Summer Of Distinction. August 10, 2020 Volume 29, No. 21
[Http://Www.Scaffolds.Entomology.Cornell.Edu/2020/SCAFFOLDS-8-10-20.Pdf](http://Www.Scaffolds.Entomology.Cornell.Edu/2020/SCAFFOLDS-8-10-20.Pdf)

Not To Scale: June 22, 2020 VOLUME 29, No. 14
[Http://Www.Scaffolds.Entomology.Cornell.Edu/2020/SCAFFOLDS-6-22-20.Pdf](http://Www.Scaffolds.Entomology.Cornell.Edu/2020/SCAFFOLDS-6-22-20.Pdf)

Apple Bloom: Supporting Pollinators & Managing Pests May 11, 2020 Volume 29, No. 8
[Http://Www.Scaffolds.Entomology.Cornell.Edu/2020/SCAFFOLDS-5-11-20.Pdf](http://Www.Scaffolds.Entomology.Cornell.Edu/2020/SCAFFOLDS-5-11-20.Pdf)

Coming Out Of Their Shells VOLUME 28, No. 13, June 18, 2019
[Http://Www.Scaffolds.Entomology.Cornell.Edu/2019/SCAFFOLDS-6-18-19.Pdf](http://Www.Scaffolds.Entomology.Cornell.Edu/2019/SCAFFOLDS-6-18-19.Pdf)

NYS Ban On Lorsban VOLUME 28, No. 8, May 13, 2019
[Http://Www.Scaffolds.Entomology.Cornell.Edu/2019/SCAFFOLDS-5-13-19.Pdf](http://Www.Scaffolds.Entomology.Cornell.Edu/2019/SCAFFOLDS-5-13-19.Pdf)

Fuji & Zestar Collapse: The "Perfect Storm" For Tree Stress At Harvest. VOLUME 28, No. 4, April 15, 2019 [Http://Www.Scaffolds.Entomology.Cornell.Edu/2019/SCAFFOLDS-4-15-19.Pdf](http://Www.Scaffolds.Entomology.Cornell.Edu/2019/SCAFFOLDS-4-15-19.Pdf)

Planning For Seasonal Psylla. VOLUME 28, No. 2, April 1, 2019

Small Scale, Magnified. VOLUME 27, No. 2, April 2, 2018

Prepare Ye The Way: Early Psylla Management Planning. VOLUME 27, No. 2, April 2, 2018

Jentsch Lab Blog Articles

Spotted Lanternfly (SLF) Adult and Overwintering Egg Masses Establish in the Hudson Valley & Southern Tier. November 19, 2020. <http://blogs.cornell.edu/jentsch/2020/11/19/spotted-lanternfly-slf-adult-and-overwintering-egg-masses-establish-in-the-hudson-valley-southern-tier/>
Also in Tree Fruit E-Alert ~ November 20, 2020

Hudson Valley Research Lab Donates 47K Apples to Support Local Food Pantries
November 12, 2020 <http://blogs.cornell.edu/jentsch/2020/11/12/hudson-valley-research-lab-donates-47k-apples-to-support-local-food-pantries/>

Factors Contributing to the 2020 Seasonal Hudson Valley Insect Pest Management
October 20, 2020 <http://blogs.cornell.edu/jentsch/2020/10/20/factors-contributing-to-the-2020-seasonal-hudson-valley-insect-pest-management/>

Join the National Fall Invasion Citizen Science Project To Map Brown Marmorated Stink Bug
October 20, 2020 <http://blogs.cornell.edu/jentsch/2020/10/10/join-the-national-fall-invasion-citizen-science-project-to-map-brown-marmorated-stink-bug/>

Vineyard & Orchard Alert: Confirmed Finding Of an Established Spotted Lanternfly population in Greenwich, CT. September 21 <http://blogs.cornell.edu/jentsch/2020/09/29/vineyard-orchard-alert-confirmed-finding-of-an-established-spotted-lanternfly-population-in-greenwich-ct-september-21st-2020/>

First Fruits: Supporting the Food Bank of the Hudson Valley and the HVRL in 2020.
September 21 <http://blogs.cornell.edu/jentsch/2020/09/24/first-fruits-supporting-the-food-bank-of-the-hudson-valley-and-the-hvrl-in-2020/>

2020 Samurai Wasp Project: We Need Your Brown Marmorated Stink Bug.....Alive
February 13, 2020
<http://blogs.cornell.edu/jentsch/2020/02/13/2020-samurai-wasp-project-we-need-your-brown-marmorated-stink-bug-alive/>

Sharp Rise Of Hudson Valley Adult Stink Bug Populations.
September 8th, 2020 <http://blogs.cornell.edu/jentsch/2020/09/08/sharp-rise-of-hudson-valley-adult-stink-bug-populations-september-8th-2020/>

Webinar: Control of the Brown Marmorated Stink Bug with Biologicals
August 26th, 2020 Zoom link <http://blogs.cornell.edu/jentsch/2020/08/26/webinar-control-of-the-brown-marmorated-stink-bug-with-biologicals/>

Management Options For The Stink Bug Complex On Pome Fruit Near Harvest. August 24th, 2020. August 24th, 2020 <http://blogs.cornell.edu/jentsch/2020/08/24/management-options-for-the-stink-bug-complex-on-pome-fruit-near-harvest-august-24th-2020/>

Vineyard Alert: New York State Announces Confirmed Finding Of Spotted Lanternfly On Staten Island. August 14th, 2020 <https://blogs.cornell.edu/jentsch/2020/08/14/vineyard-alert-new-york-state-announces-confirmed-finding-of-spotted-lanternfly-on-staten-island-august-14th-2020/>

Strong Support Systems for High Density Fruit Plantings. August 4th, 2020
<https://blogs.cornell.edu/jentsch/2020/08/04/strong-support-systems-for-high-density-fruit-plantings/>

Section 18 EPA Approval for Bifenthrin for BMSB Management. Stink bug populations on the rise in Hudson Valley Vegetable and Orchards.

July 29th, 2020 <https://blogs.cornell.edu/jentsch/2020/07/29/section-18-epa-approval-for-bifenthrin-for-bmsb-management-stink-bug-populations-on-the-rise-in-hudson-valley-vegetable-and-orchards-july-29th-2020/>

Management for 2nd Gen. Codling Moth: Apple Maggot Trap Numbers on the Rise:

July 28th, 2020 <https://blogs.cornell.edu/jentsch/2020/07/28/management-for-2nd-gen-codling-moth-apple-maggot-trap-numbers-on-the-rise-july-28th-2020/>

2nd Gen. Codling Moth Management: Apple Maggot Emergence Increases:

July 19th, 2020 <https://blogs.cornell.edu/jentsch/2020/07/20/2nd-gen-codling-moth-management-apple-maggot-emergence-increases-july-19th-2020/>

HVRL / Cornell AgriTech In The Spotlight: 2019 Hudson Valley Orchard Donations to the Regional Food Bank Of Northeastern NY November 25, 2019

<http://blogs.cornell.edu/jentsch/2019/11/25/hvrl-cornell-agritech-in-the-spotlight-2019-hudson-valley-orchard-donations-to-the-regional-food-bank-of-northeastern-ny/>

Factors Contributing To The 2019 Hudson Valley Insect Pest Management Anomalies

October 21, 2019

<http://blogs.cornell.edu/jentsch/2019/10/21/factors-contributing-to-the-2019-hudson-valley-insect-pest-management-anomalies/>

BMSB: High Adult Trap Catches Continue This Week. September 19th, 2019

September 19, 2019

<http://blogs.cornell.edu/jentsch/2019/09/19/bmsb-high-adult-trap-catches-continue-this-week-september-19th-2019/>

Stink Bugs: A Closer Look...Good or Bad: September 12th, 2019

<http://blogs.cornell.edu/jentsch/2019/09/13/stink-bugs-a-closer-look-good-or-bad-september-12th-2019/>

Other Relevant Research Activities: Publications:

Research Summaries at the Hudson Valley Research Laboratory:

Research and Extension Activities at Hudson Valley Research Laboratory for 2013 – 2020

<https://blogs.cornell.edu/jentsch/research-and-extension-programs-at-cornells-hudson-valley-laboratory/>

Refereed Journals:

Maple N Chen, Ricardo D Santander, Elijah J Talamas, Peter J Jentsch, Marie-Claude Bon, Srđan G Aćimović, Molecular Identification of *Trissolcus japonicus*, Parasitoid of the Brown Marmorated Stink Bug, by Species-Specific PCR, *Insects*, Volume 12, Issue 5, May 2021, Page 467,

<https://doi.org/10.3390/insects12050467>

Angelita L Acebes-Doria, Arthur M Agnello, Diane G Alston, Heather Andrews, Elizabeth H Beers, J Christopher Bergh, Ric Bessin, Brett R Blaauw, G David Buntin, Eric C Burkness, Shi Chen, Ted E Cottrell, Kent M Daane, Lauren E Fann, Shelby J Fleischer, Christelle Guédot, Larry J Gut, George C

Hamilton, Richard Hilton, Kim A Hoelmer, William D Hutchison, Peter Jentsch, Greg Krawczyk, Thomas P Kuhar, Jana C Lee, Joshua M Milnes, Anne L Nielsen, Dilani K Patel, Brent D Short, Ashfaq A Sial, Lori R Spears, Kathy Tatman, Michael D Toews, James D Walgenbach, Celeste Welty, Nik G Wiman, Janet Van Zoeren, Tracy C Leskey, Season-Long Monitoring of the Brown Marmorated Stink Bug (Hemiptera: Pentatomidae) Throughout the United States Using Commercially Available Traps and Lures, *Journal of Economic Entomology*, Volume 113, Issue 1, February 2020, Pages 159–171, <https://doi.org/10.1093/jee/toz240>

Adam Alford, Thomas P Kuhar, George C Hamilton, Peter Jentsch, Grzegorz Krawczyk, James F Walgenbach, Celeste Welty, Baseline Toxicity of the Insecticides Bifenthrin and Thiamethoxam on *Halyomorpha halys* (Hemiptera: Pentatomidae) Collected From the Eastern United States, *Journal of Economic Entomology*, 06 January 2020 , toz361, <https://doi.org/10.1093/jee/toz361>

Reig, G, Donahue, D; Jentsch, P.J. The efficacy of four sunburn mitigation strategies and their effects on yield, fruit quality, and economic performance of Honeycrisp cv. apples under eastern New York (USA) climatic conditions. *International Journal of Fruit Science* 22 Apr 2019 ISSN: 1553-8362 (Print) 1553-8621 (Online) Journal homepage: <https://www.tandfonline.com/loi/wsfr20>

Arthur M. Agnello, Jeffrey Huether, Daniel O. Gilrein and Peter J. Jentsch. Capture of *Prionus laticollis* (Drury, 1773) (Coleoptera: Cerambycidae) in New York, U.S.A., in traps baited with the sex pheromone of *Prionus californicus* Motschulsky, 1845. March 2018 *Pan-Pacific Entomologist*, 94(2):45-53. Pacific Coast Entomological Society

Dong H Cha, Stephen P Hesler, Anna K Wallingford, Faruque Zaman, Peter Jentsch, Jan Nyrop, Gregory M Loeb. 2018. Comparison of Commercial Lures and Food Baits for Early Detection of Fruit Infestation Risk by *Drosophila suzukii* (Diptera: Drosophilidae), *Journal of Economic Entomology*, tox369, <https://doi.org/10.1093/jee/tox369>

Kevin B Rice Robert H Bedoukian George C Hamilton Peter Jentsch Ashot Khimian Priscilla MacLean William R Morrison, III Brent D Short Paula Shrewsbury Donald C Weber Nik Wiman Tracy C Leskey. Enhanced response of *Halyomorpha halys* (Stal) (Hemiptera: Pentatomidae) to its Aggregation Pheromone with Ethyl Decatrieonate. *Journal of Economic Entomology*, tox316, <https://doi.org/10.1093/jee/tox316>. 20 December 2017

Abram P.K. et al. 2017 Indigenous arthropod natural enemies of the invasive brown marmorated stink bug in North America and Europe. *J Pest Sci* (2017) 90:1009–1020
DOI 10.1007/s10340-017-0891-7

Technical Reports:

Jentsch, P. J. 2017-2020. Results of Insecticide and Acaricide Studies in Eastern New York. Cornell University's Hudson Valley Laboratory Pub. # HV20XX. On-line.
(<http://blogs.cornell.edu/jentsch/results-of-insecticide-and-acaricide-studies-in-eastern-new-york-cornell-universitys-hudson-valley-laboratory/>)

Out-of-State presentations at meetings of tree fruit professionals: (2017-2020)

Webinar: Control of the Brown Marmorated Stink Bug with Biologicals.
Hosted by Marrone Bio Innovations. Aug 26, 2020 11:00 AM in Pacific Time (US and Canada),

[Internet extension field based 'on-demand' video presentations via web streaming:](#)

[Over-informed on IPM - Episode 018: Codling Moth.](#) April 21, 2020 UNH Extension (Audio embedded Blog and written article)

Developing Cultural Strategies To Manage Spotted Wing Drosophila In Blueberry Production Systems. December 12th, 2019 NEVFC Double Tree Hotel – Manchester, NH

Exclusion Systems For Raspberry Production Systems Work?? 2019 NEVFC December 11th, Double Tree Hotel, Manchester, NH

Update: Biological Control of Brown Marmorated Stink Bug, *Halyomorpha halys* Stål (Hemiptera: Pentatomidae) in NYS October 25th, 2019. New England, New York, Canadian Fruit Pest Management Workshop. Burlington Vt. (55 University faculty, fruit extension educators, and private consultants)

Presence and Redistribution of Samurai Wasp, *T. japonicus* (Ashmead, 1904), in NYS. 90th Annual Meeting of the Eastern Branch of the Entomological Society of America March 9-12, 2019, Virginia Tech, Blacksburg, Va.

New Materials vs. Old Pests: New Monitoring for New Pests. Maine State Pomological Society Preseason Tree Fruit Meeting, March 6, 2019, Lewiston Auburn College, Lewiston ME

+++++

Redistribution Of *Trissolcus Japonicus* In NYS Orchards. March 19th, 2018, Entomological Society of America Eastern Branch Meeting, 89th Annual Meeting of the Eastern Branch of the Entomological Society of America, Westin, Annapolis, Maryland, DE, (20 min.; 55 attendees primarily university faculty and graduate students. 17 contact hours).

Connecticut Pomological Society. Biological Insecticides: What are they and do they really work? Nov. 27th. 2018

2018 Onion Bulb Mite Seed Treatment Efficacy Screening Studies. Entomology Session. Syngenta Northeastern Invitation to Innovation, Bear Creek Mountain Resort, 101 Doe Mountain Lane, Macungie, PA March 14th, 2018 (15 min.; 17 attendees, industry, consultants, university faculty and CCE staff. 17 contact hours).

Redistribution Of *Trissolcus Japonicus* In NYS Orchards. SW Horticultural Days, *Benton Harbor, Michigan* February 8th, 2018, (30 min.; 45 attendees primarily growers, 1 researcher. 22 contact hours).

Old, New and Novel Tools for Management of the Asian Invasive Brown Marmorated Stink Bug. SW Horticultural Days, *Benton Harbor, Michigan* February 8th, 2018, (20 min.; 45 attendees primarily growers, 1 researcher. 15 contact hours).

+++++

Redistribution Of *Trissolcus Japonicus* In NYS Orchards. November 30th, 2017. Cumberland-Shenandoah Tree Fruit Management Meeting, *Winchester, VA*, (30 min.; 40 attendees primarily growers. 20 contact hours).

Field and Laboratory Based Efficacy Studies. On BMSB Using Reduced Risk and Short PHI Insecticides *October 25th, 2017. New England, New York, Canadian Fruit Pest Management Workshop. Burlington Vt. (55 University faculty, fruit extension educators, and private consultants)*

Employing Spensa SP Technologies for Communicating Grower Based Tree Fruit Management Recommendations. *October 25th, 2017. New England, New York, Canadian Fruit Pest Management Workshop. Burlington Vt. (55 University faculty, fruit extension educators, and private consultants)*

Expanding the Range of the Samurai Wasp, *Trissolcus japonicus*, in NY Orchards. *October 25th, 2017. New England, New York, Canadian Fruit Pest Management Workshop. Burlington Vt. (55 University faculty, fruit extension educators, and private consultants)*

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)

In-State Presentations at fruit grower meetings and other meetings: (2017-2020)

Morning Brew: Tree Fruit Pest Management Conversations via Zoom. Weekly @ Monday 6AM, April 27th - August 17th, 2020

Tree Fruit Insect Pest Management Updates, The Desmond Conference Center, 660 Albany Shaker Road, Albany, NY February 25th, 2020

Insecticide Efficacy for Insect Management of Tree Fruit In Eastern NY. Long Island Agricultural Forum, Suffolk County Community College; Eastern Campus Riverhead, New York Peconic Building. January 8, 2019

Growing Fruit Trees On A Diversified Farm-Orchard Planning & Management. 2019 Young Farmers Conference, Stone Barns Ctr. for Food & Ag., Tarrytown, NY December 4th, 2019

Biological Control of Brown Marmorated Stink Bug, *Halyomorpha halys* Stål (Hemiptera: Pentatomidae) in NYS. New England, New York, Canada Fruit Pest Mgt Workshop, Bishop Booth Conference Center, Burlington Vt., October 21-23, 2019

Pre-Bloom Decision Making for Your Orchard, Hudson Valley Research Lab Conf. Rm., Highland, NY. March 8, 2019

Managing Spotted Wing in No Spray Organic Pick-Your-Own Market. July 19th 2018. Poughkeepsie Farm Project – Poughkeepsie, NY (40 min.; 10 attendees; small fruit growers, CCE & ENYCHP staff; total contact hours = 6). <https://cpb-us-e1.wpmucdn.com/blogs.cornell.edu/dist/f/3191/files/2018/07/Developing-Exclusion-ATK->

[System-1b7kql4.pdf](#)

Conventional, Biological, Attract and Kill and Cultural management Strategies of Spotted Wing Drosophila for Conventional and Organic Raspberry Production Systems in NY. March 15th, 2018. Spotted Wing Drosophila Management Meeting, *Canton, NY*, (150 min.; 14 attendees primarily growers . 35 contact hours).

Spotted Wing Tsunami: SWD Management in Fruit Crops. March 6th. 2019 LOFT Ontario Country Club – 2101 Country Club Lane. Ontario, NY (60 min.; 190 attendees; apple growers, Ag.assistance admin. & staff; total contact hours = 190).

<http://blogs.cornell.edu/jentsch/presentations/>

Monitoring and Management of the Stink Bug Complex In the Northeast presented to the Red Tomato – Annual Growers Meeting, February 28th , 2018, Henry A. Wallace Center, FDR Presidential Library Hyde Park, NY (60 min.; 40 attendees; apple growers, Red Tomato Admin.; total contact hours = 40). <http://blogs.cornell.edu/jentsch/presentations/>

Expanding the Range for Establishing the Samurai Wasp, *Trissolcus japonicus* in Orchards and Vegetable Crops of NYS, ENYCHP CCE Winter Fruit Schools The Desmond Conference Center, 660 Albany Shaker Rd, Albany, NY February 21st, 2018; (20 min.; 320 attendees; apple, vegetable, small fruti and grape growers, farm staff and laborers, landscapers, CCE & HVRL Staff Members; total contact hours = 106). <https://www.youtube.com/user/pjj58>

Insecticide Efficacy for Insect Management of Tree Fruit In Eastern NY, Long Island Agricultural Forum, Riverhead, NY January 9th, 2019

+++++

The Heirloom Orchard: A Three-Day Series on Estate Orchard Management. Saturday Dec 8th, 15th, 22nd 2018 @ HVRL

Insecticide Efficacy HVRL IPM Workshop, Highland, NY October 10th, 2018.

Brown Marmorated Stink Bug Management in Northeastern Orchards. Mississippi Valley Fruit Company, TruEarth Growers Meeting, Monday, March 27, 2018, 10:00 AM – 3:00 PM, The Green Mill Restaurant, 1025 Hwy 61 E, Winona, MN 55987 (Remote via GoToMeeting.com).

Redistribution of *Trissolcus japonicus* (Hymenoptera: Platygasteridae) for Use in the Biological Control of BMSB Management in NYS. 9th-International-IPM-Symposium, Baltimore, MD March 21st, 2018

Redistribution of *Trissolcus japonicus* (Hymenoptera: Platygasteridae) for Use in the Biological Control of BMSB Management in NYS. Eastern Branch ESA, Westin, Annapolis, MD March 19th, 2018

Pesticide Update: Conventional and Organic Chemical Control Options for 2018. ‘Save the Berries: Managing Spotted-Wing Drosophila Workshop. Best Western University Inn, 90 E Main St, Canton NY. March 7th

Attract-and-Kill: 2017 Field Trials. ‘Save the Berries: Managing Spotted-Wing Drosophila Workshop. Best Western University Inn, 90 E Main St, Canton NY. March 7th

Pesticide Efficacy Summary. ‘Save the Berries: Managing Spotted-Wing Drosophila Workshop. Best Western University Inn, 90 E Main St, Canton NY. March 7th

Spotted Wing Drosophila Tsunami: SWD Management. 2018 Agr.Assistance Winter Fruit Grower Meeting. Ontario Country Club – 2101 Country Club Lane – Ontario, NY. Tuesday March 6th, 2018

Monitoring and Management of the Stink Bug Complex In the Northeast. presented to the Red Tomato – Annual Growers Meeting, Henry A. Wallace Center, FDR Presidential Library Hyde Park, NY February 28th , 2018

Expanding the Range for Establishing the Samurai Wasp, *Trissolcus japonicus* in Orchards and Vegetable Crops of NYS, The Desmond Conference Center, 660 Albany Shaker Rd, Albany, NY February 21st, 2018 (Audio embedded PPT)

Redistribution Of *Trissolcus Japonicus* In NYS Orchards. SW Horticultural Days, Benton Harbor, Michigan February 8th, 2018

Old, New and Novel Tools for Management of the Asian Invasive Brown Marmorated Stink Bug. SW Horticultural Days, Benton Harbor, Michigan February 8th, 2018

+++++

Current Research Projects in Entomology. HVRL Apple Forum, Hudson Valley Research Laboratory, Highland, NY. December 20th, 2017; (25 min.; 40 attendees; apple growers, landscapers, researchers & HVRL Board Members; total contact hours = 17).

Horticultural Programming for the Eastern NY Tree Fruit Industry
Apple Research & Development Program NYSAES, Jordan Hall , Geneva, NY November 28, 2017; (15 min.; 20 attendees; researchers & ARDP Board Members; total contact hours = 5).

Biological Control of the Brown Marmorated Stink Bug in New York State
Apple Research & Development Program NYSAES, Jordan Hall , Geneva, NY November 28, 2017; (15 min.; 20 attendees; researchers & ARDP Board Members; total contact hours = 5).

Research Findings Using Attract & Kill For SWD Management (30 min), Nov. 13, 2017 Ag In-Service Fruit Track Presentations; Monday, Jordan Hall, NYSAES, Geneva, NY

Brown Marmorated Stink Bug - What can we expect in 2018 (30 min), Nov. 13, 2017 Ag In-Service Fruit Track Presentations; Monday, Jordan Hall, Staff Room, NYSAES, Geneva

Magazine and Digital News

Can Samurai Wasps Save the Hudson Valley from Stinkbugs?

<https://www.scenichudson.org/viewfinder/can-samurai-wasps-save-the-hudson-valley-from-stinkbugs/> October 2020, Scenic Hudson, John Ferro

Episode 3: Samurai Wasps Vs. Stink Bugs. CALS Food and Science Podcast. February 2019
<https://www.foodplusscience.com/2019/02/15/episode-3-samurai-wasps-vs-stink-bugs/>

Hudson Valley program seeks volunteers to help release stink bug-killing wasp
by William Dendis, May 22, 2019 <https://hudsonvalleyone.com/2019/05/22/program-seeks-volunteers-to-help-release-stinkbug-killing-wasp/>

Samurai Wasp vs The Stink Bug. 55KRC - The Talk Station in Cincinnati / Blog Radio
Interview. Ron Wilson Jul 18, 2018 <https://55krc.iheart.com/featured/ron-wilson/content/2018-07-18-samurai-wasp-vs-the-stink-bug/>

Earth Matters: Stink Bug Wars. Nyack News and Views. by Susan Hellauer. March 14, 2018
<http://nyacknewsandviews.com/2018/03/earth-matters-stinkbugs-bmsb/>

Samurai Wasps Deployed to Battle Brown Marmorated Stink Bugs. Growing Produce. Christina
Herrick | July 13, 2018 <https://www.growingproduce.com/fruits/samurai-wasps-deployed-battle-stink-bugs/>

When Twenty-Six Thousand Stinkbugs Invade Your Home, Annals of Ecology, New Yorker
Magazine. March 12, 2018 Issue <https://www.newyorker.com/magazine/2018/03/12/when-twenty-six-thousand-stinkbugs-invade-your-home>

Scientists sic samurai wasps on stink bugs
Cornell University scientists are working control a household nuisance & agricultural pest
July 3, 2018
<https://www.morningagclips.com/scientists-sic-samurai-wasps-on-stink-bugs/>

Cornell Chronicle
<http://news.cornell.edu/stories/2018/07/scientists-sic-samurai-wasps-stink-bugs>

USA: Samurai-Wespe sehr effektiv bei der Bekämpfung der marmorierten Baumwanze
07. August 2018 <https://www.fruchtportal.de/artikel/usa-samurai-wespe-sehr-effektiv-bei-der-bekampfung-der-marmorierten-baumwanze/034865>

Tiny wasps set to wreak 'Alien'-like havoc on stink bugs - USA Today
<https://www.usatoday.com/story/news/nation-now/2017/03/07/stink-bug-natural-killer/98861570/> Mar 7, 2017

Tiny wasps set to wreak havoc on stink bugs - Wisconsin State Farmer
www.wisfarmer.com/story/news/2017/03/08/tiny-wasps...stink-bugs/98889258/
Mar 7, 2017

Tiny wasps set to wreak havoc on stink bugs - The News-Press
www.news-press.com/story/news/2017/03/08/tiny-wasps-set...stink-bugs/98889258/
Mar 8, 2017

Get Rid Of Stink Bugs: National Citizen Scientist Project | New City, NY ...
<https://patch.com/new-york/newcity/help-find-stinky-national-citizen-scientist-project>
Mar 10, 2017

March Madness Citizen Science Project to Find BMSB on SciStarter

<https://scistarter.com/project/17029-March-Madness-Citizen-Science-Project-to-Find-BMSB>

Mar 11, 2017

Stink bug killers: Scientists to release Samurai wasps

John Ferro Published 5:58 a.m. ET March 13, 2017 | Updated 6:06 a.m. ET March 13, 2017

<http://www.lohud.com/story/news/local/2017/03/13/stink-bug-wasps/99113182/>

Scientists Wage War on Stink Bugs - Westchester Magazine

www.westchestermagazine.com/Scientists-Wage-War-on-Stink-Bugs/

Mar 13, 2017 By Jonathan Ortiz By Jonathan Ortiz

The battle of the bugs: Wasps to combat upstate stink bugs - Daily Times

<https://www.daily-times.com/story/news/2017/03/16/...bugs...stink-bugs/99252376/>

Mar 16, 2017

Oregon hopes 'Samurai wasp' will battle invasive brown marmorated stink bug

https://www.nrtoday.com/oregon-hopes-samurai-wasp-will-battle-invasive-brown-marmorated-stink/article_3a756bc5-0388-563e-90f6-696bdb197dc6.html

Tracy Loew (Salem) Statesman Journal Mar 23, 2017

The battle of the bugs has been launched - Albany Times Union, 2017.

<http://digital.olivesoftware.com/Olive/ODN/AlbanyTimesUnion/shared/ShowArticle.aspx?doc=HATU%2F2017%2F07%2F24&entity=Ar00205&sk=91EDF0AC>

Jul 24, 2017

Stink bug season: Those ugly, smelly bugs are trying to get into your house

http://www.newyorkupstate.com/news/2017/09/stink_bug_season_those_ugly_smelly_bugs_are_trying_to_get_into_your_house.html Updated Sep 25, 2017; Posted Sep 25, 2017

Stink bugs are back: How to get rid of them, what you need to know

<http://www.democratandchronicle.com/story/news/2017/09/25/theyre-back-what-know-stink-bugs/699499001/> Sep 25, 2017

How to Get Rid of Stink Bugs in House - Tips for Killing Stink Bugs

<http://www.goodhousekeeping.com/home/a46251/how-to-get-rid-of-stink-bugs/>

Sep 27, 2017

'The next six weeks are going to be mayhem': Stink bugs invade ...

<http://www.timesunion.com/business/article/The-next-six-weeks-are-going-to-be-mayhem-12227257.php> Sep 27, 2017

Knock, knock: It's those stinkin' stink bugs - News - recordonline.com ...

www.recordonline.com/news/20170929/knock-knock-its-those-stinkin-stink-bugs

Sep 29, 2017

Stink bugs: What to know - The Poughkeepsie Journal

<http://www.poughkeepsiejournal.com/story/news/health/2017/10/03/stink-bugs-2017/725639001/> Oct 3, 2017

Why stink bug populations are booming in 2017 (and what you can do ...
<http://www.poughkeepsiejournal.com/story/news/health/2017/10/03/stink-bugs-2017/725639001/> Oct 19, 2017

It's war! Against stinkbugs - The Poughkeepsie Journal
www.poughkeepsiejournal.com/story/news/2017/12/20/its...stinkbugs/942109001/; Dec 20, 2017

Get Rid Of Stink Bugs: National Citizen Scientist Project: They've discovered how to eradicate the Brown Marmorated Stink Bug, so scientists are trying to map the invasive insect across the USA. Lanning Taliaferro, Patch Staff | Mar 10, 2017 8:44 am ET | Updated Mar 10, 2017 11:43 am ET <https://patch.com/new-york/newcity/help-find-stinky-national-citizen-scientist-project>

[Expanding the Range for Establishing the Samurai Wasp, Trissolcus japonicus in Orchards and Vegetable Crops of NYS](#), The Desmond Conference Center, 660 Albany Shaker Rd, Albany, NY February 21st, 2019 (Audio embedded PPT)

Development of the Hudson Valley Laboratory / FARM 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. <https://www.farmhv.org/>

Professional Development Activities

Meetings and Conferences:

February 2020 , Hudson Valley Fruit School, Albany, NY

October 2019. New England, New York, Canadian Fruit Pest Management Workshop. Burlington Vt..

October 2018. New England, New York, Canadian Fruit Pest Management Workshop. Burlington Vt..

Syngenta Knowledge Exchange March 14th and 15th 2018, Bear Creek Mountain Resort & Conference Center in Macungie, PA

BMSB Parasitoid Workshop, January 16th – 19th 2018, U. Florida, Gainesville, FL.

November 2017. Northeast IPM Brown Marmorated Stink Bug Working Group Meeting, Alson H. Smith Research and Extension Center, Virginia Agriculture Experiment Station, Winchester, VA,.

November 2017. 93rd Annual Cumberland-Shenandoah Fruit Workers Conference, Winchester, VA.

October 2017. New England, New York, Canadian Fruit Pest Management Workshop. Burlington Vt..

February 2017 , Hudson Valley Fruit School, Kingston, NY

February 2017, Lake Champlain Fruit School, Lake George, NY.

Syngenta Knowledge Exchange February 21st and 22nd 2017, Bear Creek Mountain Resort & Conference Center in Macungie, PA

National Meetings of the Entomological Society of America
Nov. 2017 ICE / ESA Orlando, FL.

Eastern Branch Meetings of the Entomological Society of America
March 2018 Annapolis
March 2017 Newport, RI

Representative Professional Activities

Professional Societies

New York State Horticultural Society
Entomological Society of America (ESA)
International Fruit Tree Association (IFTA)

Research Goals cover three primary areas of study.

I. Our shift in research emphasis has shifted to the study and determine the impact of invasive species on regional agricultural commodities in tree fruit, vegetable, grape and small fruit. Two invasive insect species, notably the brown marmorated stink bug (BMSB) *Halyomorpha halys* (Stål), and the spotted wing drosophila, *Drosophila suzukii*, have caused considerable impact on fruit production since 2011. This has also provided the use of Citizen Science based outreach technologies and social media for insect detection to follow the trend in BMSB migration of invasive insects throughout the state.

II. Our second area of research focuses on insecticide toxicology or field efficacy screening. Our ability to focus on the impact of insecticides in a broad ecological evaluation of arthropod pests and beneficial insects in small randomized and completely replicated field plots, allows us to discern unique differences in insecticidal effects on a range of ecological factors. This is conducted within the canopy of tree fruit varieties, vine canopy or vegetable plots. Given the diverse pest complex in the Hudson Valley, high levels of insect pest pressure and predatory presence from abandoned orchards and wood lots, we are able to put experimental insecticides through rigorous field-testing. However, to understand more fully the impact of these insecticides within the commercial orchard environment, we also conduct large block trials with cooperating producers. These trials provide us with substantive 'holistic' data, providing experiences with the products the grower for them to discern the effectiveness of the material, relative to 'standard materials' they might otherwise use to achieve control.

Each year, efficacy screens funded through the agricultural industry, range from \$38,000 to \$55,000 in support of our program. Studies in alternative insect and disease control for apple and pear production have been ongoing since the inception of the laboratory. In 2017 we evaluated the insecticidal and miticidal efficacy of 22 experimental and commercial insecticides on apple and pear. In past collaborative efforts with Geneva (Agnello, Loeb, Nault, Taylor) we also conducted trials sponsored by SCRI, NYS Ag. & Mkts, ARDP, ORDP and industry sponsored trials. Recent trials studied the insecticidal efficacy of FarMore® FI500 Onion fungicide /insecticide seed treatment on onion bulb mite with prior work conducted more than 60 onion treatments of experimental and commercially used NYS registered insecticides applied as both coated seed and drench treatments. A few large block commercial trials conducted on regional farms for pome and grape studies, with applications being made by the producer, are conducted each year, numbering 2 - 3 per year.

Our yearly reports (2006-2012) on the 'Results of Insecticide and Acaricide Studies in Eastern New York' represent the term of work dedicated to the evaluation of experimental, newly released and standard insecticide comparisons in pome tree fruit, onion and grape.

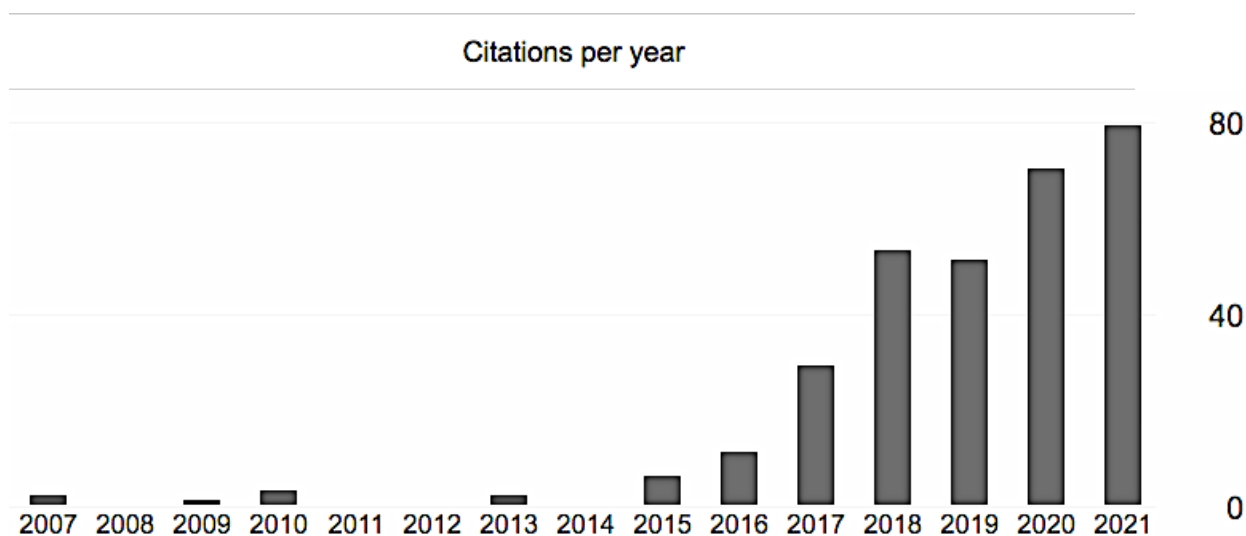
III. A third area of study is the instructional use of mating disruption for lepidopteran pests of

fruit, attract and kill solutions for the invasive insect pests spotted wing drosophila and the brown marmorated stink bug, along with biological control, in particular the use of the adventive parasitoid, *Trissolcus japonicus*, to manage the brown marmorated stink bug.

Additional areas of study include *planting systems* that provide elements of reduced risk insect pest and beneficial management and pesticide load reduction for greater agricultural sustainability. This includes studies in organic apple and pear production. Less emphasis is placed on these studies due to our emphasis on commercial production concerns. However as economics, emphasis on ‘buy local’ and regional environmental interests shift, these studies may become of greater concern to our stakeholders.

Extension Goals: To continue development of our outreach programming and increase publication on research topics.

Research metrics: <https://scholar.google.com/citations?user=DK6Hz0oAAAAJ&hl=en>



Google Analytics	All	Since 2016
Citations	317	296
h-index	6	6
i10-index	6	6

Publications:

Recent collaborations with USDA and university faculty and staff have provided research and publication opportunities, increasing citation, h-index and i10-index values. Developing and continued research collaborations on studies in invasive insect pest complex management and biological control may lead to further publications, improving overall impact and outreach of our efforts.

Blog Site:

The ‘Jentsch Lab’ web site (<http://blogs.cornell.edu/jentsch/>) provides email subscription to 381 Ag recipients to receive timely agricultural production and related messages during the growing season. Growers receive emails minutes after the article is posted. Articles contain insect pest modeling and application recommendations linked to CALS Pest Management Guidelines, embedded HTML links to full screen images, reports, graphs and video link to HVRL YouTube

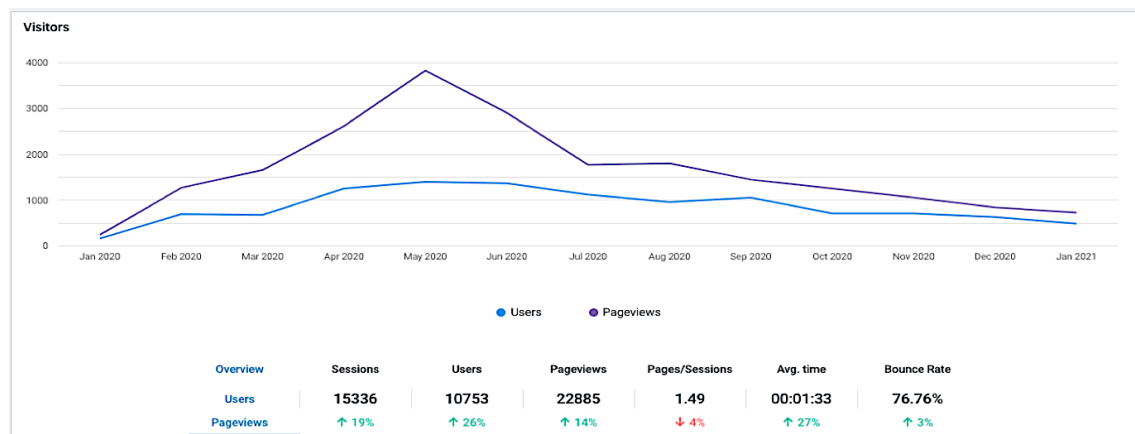
Site for critical timing of insect pest management as a tool in decision making. The purpose of the site is to make growers aware of critical pest management information as the season progresses, often re-enforcing winter meeting, fruit and vegetable school topics.

Site statistics:

Since January of 2020 the blog site recorded visits, 15,336 sessions, 22,885 page views, 10,753 users averaging 1.49 pages / visit for 1.33 min. per visit.

The majority of visitors are from North America with highest readership from the US (18,431), followed by Canada (601). Worldwide outreach includes visitors from Algeria (68), Australia (204), Bolgaria (409), Brazil (126), Chile (1), China (68), Ecuador (57), Egypt (68), France (91), Georgia (1), Germany (68), Greece (227), India (406), Iran (68), Italy (295), Japan (42), Mexico (68), Morocco (146), New Zealand (272), Philippines (7), Romania (91) Serbia (195), South Korea (8), Spain (57), Sweden (5) Turkey (227), UK (195).

Yearly: January 1st 2020 - January 1st 2021



Top Countries



Top Countries

Country	Pageviews
United States	18431
Canada	601
India	406
Serbia	195
United Kingdom	195
(not set)	179
Morocco	146

Pageviews

Top Pages/most visited	Avg. time	Views
/jentsch/the-heirloom-orchard/	00:01:07	2187
/jentsch/look-a-likes/	00:00:59	1348
/jentsch/	00:01:12	1318
/jentsch/history-of-fruit-growing-the-hudson...	00:01:15	1168
/jentsch/tree-phenology-dates-and-degree-da...	00:01:55	779
/jentsch/2020/02/13/2020-samurai-wasp-pro...	00:00:08	389
/jentsch/a-national-march-madness-citizen-s...	00:00:49	389
/jentsch/2020/05/17/morning-brew-tree-fruit...	00:09:24	359
/jentsch/2015/08/06/pear-psylla-late-season...	00:00:04	359
/jentsch/2020/04/17/strategies-of-pre-bloom...	00:02:05	359

Accomplishments, Challenges, Problems

Developing Long-Term Economic Sustainability for Hudson Valley Commercial Ag Research: A Partnership Model for the Hudson Valley Research Laboratory Inc.

- I have continued to develop a close working relationship with Hudson Valley Research Lab (HVRL) Board of Directors (BOD) comprised of 11 county regional tree fruit growers to fulfill the needs of the HVRL facility, facilitating avenues of mutual partnership with industry and community.
- I worked with the HVRL BOD president Randy Pratt to develop an updated memorandum of understanding (MOU) agreement between CALS and HVRL Inc. to further the vision of agricultural support for the region for a 10 year partnership.
- Assisted in acquiring granted resources to maintain the operations and maintenance of the facility, through a request for funding sent to over 740 eastern NY farm community members, predominately tree fruit grower, packers and shippers, and scouting consultants, agricultural interest groups. Support requests were also made at winter fruit school meetings in major commodities and follow-up outreach events. Significant contributions from the NoVo Foundation, totaling over \$500,000 in direct support and pledges since 2014.
- Worked with HVRL Inc. board of directors to develop a Distributed Extension partnerships with regional farmers under the FARM division, representing the partnership between growers of diverse agricultural commodities and on-farm research and employment of newly developed Ag. technologies.
- Developed 5 years of funding through Ag. & Mkts. to maintain horticultural research programming through acquisition of ARDP and Industry support for maintenance of research plots, salaries, retaining research support positions and one field technician, working directly with Jan Nyrop and CALS SIPS Department of Horticulture to create a Senior Associate Associate position at the HVRL.

Programmatic Development: Proposal Based Funding for Entomological Research:

- Since 2006 the Jentsch lab has continued to define and pursue new, traditional and diverse funding channels for the HVRL entomology program through successful grant sponsorship. Since 2014, we obtained grants from State, Federal, Ag. Industry and Private sources total of \$1,765,000. These funds provided the resources to maintain full and temporary laboratory and field technical support, equipment, materials and supplies for HVRL entomology experimental programming since 2006.
- Hired 21 college students from regional universities as summer technical support staff for seasonal employment, 4 whom were regional farm family members.
 - Maintain technical support for HVRL horticultural programming from July 2014 to the present by maintaining salary support for field and lab technicians.
 - Acquired 6 CCE Internships over seven years for applied education to undergraduate CALS students to study Ag. extension.
 - Provide funded research opportunities for our full time technician to pursue a graduate degree in the field of entomology (UNL-Lampasona; 2014-17)
 - On successful grant acquisitions with multiple principal investigators through SCRI-BMSB, SCRI-SLF (spotted lantern fly), recently submitted third submission for BMSB and newly submitted SCRI- BSB (black stem borer) working with multi-state university and USDA-ARS researchers on pest management solutions across the nation with colleagues internationally.

Grant Agency (Entomology)	2014	2015	2016	2017	2018	2019	Total
ARDP	\$227,582.00	\$104,674.00	\$122,746.00	\$144,880.00		\$118,894.00	\$718,776
Citizen Science				\$5,240.00		\$4,133.45	\$9,373
HATCH	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00		\$75,000
Multistate (NE1332)			\$15,000.00	\$15,000.00			\$30,000
NEIPM			\$14,997.00				\$14,997
Northeast SARE ONE16-263		\$14,977.00					\$14,977
NYFVI	\$99,614.00		\$15,000.00			\$124,099.00	\$238,713
NYS Ag & Mkts.		\$63,197.00					\$63,197
NYWGA	\$4,843.00	\$2,820.00	\$4,843.00	\$22,220.00			\$34,726
USDA SCRI / NIFA (BMSB)		\$70,182.00	\$186,372.00				\$256,554
USDA SCRI (SLF)						\$181,395.00	\$181,395
Partnership Funding	\$2,014.00	\$2,015.00	\$2,016.00	\$2,017.00			Total
Urban Ag.		\$8,250.00		\$11,200.00	\$10,000.00	\$5,000.00	\$34,450
Farm Membership	\$207,052.00	\$31,650.00	\$45,500.00	\$39,800.00	\$43,500.00	\$83,139.80	\$450,642
NoVo Foundation	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$600,000
ENYCHP / Hatch						\$7,400.00	\$7,400
Memorials		\$10,435.00	\$2,700.00			\$3,149.65	\$16,285
Total							\$2,746,485

Most Notable Accomplishments

- Develop ATK solutions are designed to reduce agricultural and urban pest populations so as to reduce pesticide loads in agricultural commodities and in the urban landscape.
- Develop a Citizen Science Project for Invasive Insect Pests.
- Develop a strong working relationship with an 11-member tree fruit and vegetable grower board of director's membership. Assist in developing the HVRL Lab board membership to include vegetable and grape members.
- Develop relationships with agricultural interest groups in support of local growers to fully fund the HVRL over the last 4 years and retain over \$500,000 in assets to support 3-years of operating expenses.
- Fully fund, hire and supervise post-doctorate Gemma Reig Cordoba and Dana Acimovic to support Hudson Valley horticultural programming, develop and maintain horticultural projects during the past 3-years. Provide funding for multi-disciplinary programs including horticulture during that period.

Most Exciting Aspect of Work:

- Discovery, capture and redistribution of the Asian adventive Samurai Wasp, *Trissolcus japonicus*, throughout NYS in 2017-20.

Greatest Challenges:

- Contending with limitations stemming from the July 2015 onset of financial divestment by our principle partner Cornell College of Ag. & Life Sciences (CALs). At the onset this has also led to reduction of monetary support for the facility operations and maintenance, reduced faculty members and subsequent loss of horticultural staffing. The means to provide field research and logistical support beginning in 2014 for safe operations of CALs facilities, specifically pertaining to CALs owned research orchard land and infrastructure compromised the safety and working conditions of faculty and staff.
- Significant loss of time and resources were spent focusing on new partnership development, reducing efficiency in both research and outreach, compromising our efforts to provide effective programming to our stakeholders.
- Staffing challenges are on-going with HR issues ranging from use of CBD vaping on HVRL grounds, Title 10 accusations within plant pathology staffing and insubordination penalties to cease and desist for a faculty member continued request to HVRL Board of Directors and growers during annual meetings to

obtain program a tenure support package long after the issue of tenure at off-site research facilities was clearly made by AgriTech Director Jan Nyrop and CALS Dean Boor.