

Virginia Tech Pesticide Programs

Annual Report – 2022

VTPP



Virginia Tech
Pesticide Programs

Virginia Tech Pesticide Programs (VTPP) provide pesticide safety information, training, and educational resources to pesticide applicators, Extension faculty, and the public. Our mission is to minimize the human health and environmental impacts associated with improper handling and application of pesticides. VTPP works with other state agencies including the Virginia Department of Agriculture and Consumer Services and Virginia Cooperative Extension to advance the quality of pesticide safety education in Virginia and beyond.

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Virginia Tech Pesticide Programs Team

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Pesticide Applicator Training Manuals and Exams

Manual and Exam Revisions: VTPP produces new and revises existing pesticide applicator training manuals as part of a Memorandum of Agreement with the Virginia Department of Agriculture and Consumer Services, Office of Pesticide Services (VDACS-OPS). Author/reviewer committees are organized and content is written, edited, and formatted as part of the manual production/revision process. Core and category exams are written/revised as needed to correspond to manual changes. Below is a list of manual and exam revisions in progress or completed during 2022.

Category 3B, Turf Pest Control (2022 manual and exam in use) – Manual released to the public and posting of the revised exam by Department of Motor Vehicle (DMV) testing centers in June 2022.

Category 6, Right-of-Way Pest Control (2022 manual and exam in use) – Manual released to the public and posting of the revised exam by Department of Motor Vehicle (DMV) testing centers in June 2022.

Category 10, Demonstration and Research Pest Control (2022 manual and exam in use) – Manual released to the public and posting of the revised exam by Department of Motor Vehicle (DMV) testing centers in June 2022.

Category 4, Seed Treatment (2003 manual and exam in use) – Final manual draft approved by VDACS June 2021. Exam validation in progress.

Category 11, Aerial Pesticide Application (2002 manual and exam in use) – Final manual draft approved by VDACS February 2021. Exam revisions and validation in progress.

Category 1C, Fumigation of Soil and Agricultural Products (2003 manual and exam in use) – Manual revision in progress.

Category 5B, Marine Anti-Foulant Paints (1989 manual and exam in use) – Manual revision in progress.

Category 7C, Fumigation (Non-Agricultural) (2002 manual and exam in use) – Manual revision in progress.

Manual Orders: Pesticide applicator training manuals are ordered and distributed through the Virginia Cooperative Extension (VCE) Storefront and printed through a contract with Office Depot. In total, 3,568 pesticide applicator training manuals were ordered and distributed in 2022. Quarterly order numbers are listed in the following table for each pesticide applicator category and manual title.

Manual Orders by Quarter in 2022

Applicator Category and Manual Title	Quarter				Total
	1	2	3	4	
Core: Applying Pesticides Correctly	599	463	274	257	1,593
1A: Agricultural Plant Pest Control	32	17	10	17	76
1B: Agricultural Animal Pest Control	6	3	1	0	10
1C: Fumigation of Soil and Agricultural Products	6	4	2	1	13
1D: Chemigation	3	3	1	0	7
2: Forest Pest Control	10	12	15	6	43
3A: Ornamental Pest Control	125	67	50	62	304
3B: Turf Pest Control	145	101	86	84	416
4: Seed Treatment	3	7	3	1	14
5A: Aquatic Pest Control	18	11	8	5	42
5B: Marine Anti-Foulant Paint	2	0	1	0	3
6: Right-of-Way Pest Control	62	50	89	45	246
7A: General Pest Control	64	85	49	33	231
7B: Management of Wood Destroying Organisms	26	34	30	26	116
7C: Fumigation (Non-Agricultural)	8	4	3	6	21
7D: Vertebrate Pest Control	16	8	8	3	35
7E: Sewer Root Pest Control	4	1	6	0	11
8: Public Health Pest Control	30	32	19	16	97
9: Regulatory Pest Control	1	3	4	3	11
10: Demonstration and Research Pest Control	38	16	107	5	166
11: Aerial Pest Control	33	6	4	13	56
12: Wood Preservation and Wood Products Treatment	33	5	6	7	51
Predator Management	3	1	1	1	6
TOTAL	1,267	933	777	591	3,568

Pesticide Certification and Recertification Training

Department of Conservation and Recreation (DCR) Pesticide Training: VTPP offers online training for DCR planners seeking general pesticide safety knowledge for continuing education credit. These individuals are not pursuing pesticide applicator certification. In total, 22 individuals completed the DCR course in 2022.

Online Pesticide Certification Preparation Training: VTPP offers online training courses for pesticide applicators seeking certification. Applicators practice for the certification exam(s) by completing different lessons corresponding to units in the respective pesticide applicator training manual. Courses are open to any prospective Virginia commercial/private applicator, registered technician, educator, or employer seeking to train new pesticide applicators or students. The number of individuals enrolled in online core and category specific courses in 2022 are listed in the following tables.

Online Core Training Enrollment in 2022

Applicator Type	# of individuals enrolled
Commercial	145
Government	63
Registered Technician	259
Private	33
TOTAL	500

Online Commercial Category Training Enrollment in 2022

Applicator Category	Applicator Type		Total
	Commercial	Government	
1A: Agricultural Plant Pest Control	17	1	18
1B: Agricultural Animal Pest Control	2	1	3
1C: Fumigation of Soil and Agricultural Products	4	1	5
1D: Chemigation	2	0	2
2: Forest Pest Control	3	9	12
3A: Ornamental Pest Control	42	17	59
3B: Turf Pest Control	54	17	71
4: Seed Treatment	5	1	6
5A: Aquatic Pest Control	9	6	15
5B: Marine Anti-Foulant Paint	1	0	1
6: Right-of-Way Pest Control	15	23	38
7A: General Pest Control	33	6	39
7B: Management of Wood Destroying Organisms	24	1	25
7C: Fumigation (Non-Agricultural)	5	0	5
7D: Vertebrate Pest Control	6	1	7
7E: Sewer Root Pest Control	2	1	3
8: Public Health Pest Control	18	10	28
9: Regulatory Pest Control	1	3	4
10: Demonstration and Research Pest Control	2	11	13
11: Aerial Pest Control	7	2	9
12: Wood Preservation and Wood Products Treatment	3	0	3
Predator Management	3	0	3
TOTAL	258	111	369

Private Applicator Recertification Course Approval: VTPP works with VCE agents and specialists to approve, process, and coordinate recertification training courses for private pesticide applicators. In 2022, 107 private applicator recertification course requests were approved and processed by VTPP, which resulted in 1,786 course participants receiving pesticide recertification credit. Overall, 1,650, 68, 68 individuals received pesticide recertification credit through VCE sponsored in-person, on-line, and correspondence training sessions, respectively.

Winter Recertification Training: VTPP conducts two annual commercial and private pesticide applicator recertification courses. The first course served Virginia Tech employees and pesticide applicators living in the surrounding area. The training was held January 4 and covered commercial applicator categories 1A, 1B, 10, and 60, and private applicator categories 90 and 91. The second course provided recertification training/credit for various commercial pesticide applicator categories. This training was held January 5 and covered commercial applicator categories 1A, 2, 5A, 6, 8, 10, 11, and 60. The course was also approved for reciprocal recertification credits by the following states: Pennsylvania, West Virginia, Kentucky, Indiana, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, North Carolina, and Texas. In total, 30 participants attended the trainings and received recertification credit.

Train-the-Trainer Activities

Pesticide Safety Education Workshop (PSEW): VTPP conducts an annual Virginia Pesticide Safety Educators (train-the-trainer) Workshop for VCE faculty, and VDACS staff. Each year, the workshop highlights several areas of pesticide safety education. PSEW 2022 was held August 24-25 at the Hotel Roanoke. Category 10: Demonstration and Research Pest Control testing and new agent orientation also took place during the workshop.

Annual PSEW Participation in 2022

	Total
# of participants	96
# of VCE agents participating	67
# of participants testing for commercial pesticide certification in Category 10	9
# of participants receiving recertification credit	61

Feeding the Future Bangladesh: Train-the-Trainer Workshops: From December 3-19, 2022, Rachel Parson traveled to Bangladesh to assist Virginia Tech faculty with their pesticide safety and integrated pest management (IPM) train-the-trainer workshops. Together, they held five training sessions for university faculty from the Patuakhali Science and Technology University and Bangladesh Agriculture University, the Bangladesh Department of Agriculture Extension (DAE), and agricultural pesticide dealers. Rachel’s presentations included “Developing Good Pesticide Safety Education Programs,” “Pesticide Exposure and Human Health,” and “Pesticide Exposure Effects on the Environment.” IPM principles were also included in each training.

Feeding the Future Bangladesh Workshop Participation in 2022

Audience	Participants		Total
	Male	Female	
Patuakhali Science and Technology University	33	3	36
Bangladesh Agriculture Research Council	27	13	40
Jashore DAE	36	6	42
Khulna DAE	31	7	38
Faridpur DAE and agricultural pesticide dealers	39	1	40
TOTAL	166	30	196

PSEW Canvas Website: The PSEW Canvas website is available year-round to pesticide safety educators in Virginia. It acts as an organizational hub for the yearly PSEW and as a means for sharing educational resources throughout the year. The website received 2,254 total pageviews in 2022.

Other Extension Programs and Activities

VTPP Media Library: In 2021, VTPP created a digital media library (vtechworks.lib.vt.edu/handle/10919/102775) in collaboration with VTechWorks (an open access repository provided by University Libraries at Virginia Tech). The goals of the media library are to support pesticide safety and Integrated Pest Management programming efforts, and provide opportunities for building and broadening information exchange and collaborations with other state programs, agencies, and associations. The library also complements existing resources on other publicly available platforms (e.g., bugwood.org and ipmimages.org). VTPP continually adds high-quality pictures and videos to the library, and works with VCE faculty and other cooperators to solicit additional content. In 2022, over 360 digital images with appropriate metadata were added to the media library.

Pesticide Safety Education Month: Beginning in 2020, VTPP joined a national effort to bring awareness to Pesticide Safety Education Programs, State Lead Agencies (e.g., VDACS), and pesticide safety education by celebrating National Pesticide Safety Education Month each February. In 2022, VTPP used online tools to highlight consumer pesticide safety issues and resources. VTPP created a National Pesticide Safety Education Month page on the vtp.org website to offer downloadable content focused on various pesticide safety education topics. VTPP also linked this content to its social media page. The posts on social media reached 25 individuals directly, and the public page on the website received 31 unique page visitors.

Hokie BugZoo: VTPP currently maintains an insect zoo containing a diversity of insects and other arthropods from around the world (over 3,000 specimens belonging to over 75 species), many of which are unknown to the average person. The insect zoo is used for a number of VTPP sponsored public outreach and science literacy education programs, and various K-12 and organizational youth activities. It is also the basis for several labs in the entomology curriculum at Virginia Tech. In 2022, VTPP exhibited zoo specimens at 6 area elementary schools and eight area youth outreach events that reached over 1,500 individuals. In addition, several online insect zoo tours were recorded and made available for K-12 educators and participants of the 2022 virtual Hokie BugFest via the Department of Entomology, Hokie BugFest website.

Hokie BugCamp: Each year, VTPP and the Virginia Tech Department of Entomology hosts an entomologically themed camp for youth ages 6-13 called Hokie BugCamp. In 2022, three 2-hour camp sessions were held at Blacksburg Heritage Community Park and Natural Area during July 8-9. Youth participants and their families were provided instruction and demonstration of insect collecting and pinning techniques. Youth participants were then provided hands-on opportunities to collect insects from a variety of habitats and pin their specimens. An optional “camp box” that participants could purchase (at cost) was also available. Contents of the camp box included a collection box, collecting supplies, insect identification books, and other materials to extend insect study at home. Overall, Hokie BugCamp reached 71 youth and their parents/guardians.

Hokie BugFest: VTPP and the Virginia Tech Department of Entomology annually hosts a science literacy event called Hokie BugFest, which is open to the general public. The event promotes the understanding and appreciation of insects and other arthropods by offering an array of STEAM (science, technology, engineering, art, and math) enrichment experiences tailored for youth, families, and K-12 educators. Educational experiences offered during the event include entomological research displays, insect themed arts and crafts, live arthropod specimens, curated insect displays, and other special events and activities. The 2022 Hokie BugFest was held October 8 and was attended by over 7,000 individuals. In addition, an online Hokie BugFest was hosted on the Department of Entomology, Hokie BugFest website in 2022. The online event featured videos, photos, and downloadable at-home activities from over 20 virtual exhibit booths. In addition, a Hokie BugFest Educators’ Guide was developed to help K-12 educators navigate the online event. The guide categorized online content according to age, Virginia Standards of Learning (SOLs), and topic of interest, so content could be easily used in the classroom. The Hokie BugFest website and its resources were made available to the public on November 14, and will remain available until May 31, 2023. The Hokie BugFest website received 283 total pageviews in 2022.

Hokie BugFest-on-the-Go Traveling Field Trips: VTPP continued its Hokie BugFest-on-the-Go program in 2022. The program consisted of traveling field trips where live arthropods were brought into area classrooms for a one-hour, hands-on, interactive session. Sessions included an Introduction to Entomology presentation, discussion of the habitats and adaptations of arthropod specimens, handling of selected arthropod specimens, and a general question and answer period. Hokie BugFest-on-the-Go visited 6 local schools (located in Floyd County and Montgomery County) during a one-month period in September 2022. In total, 43 classes were visited, reaching over 700 students and 55 teachers and administrators.

4-H Insect Collection Contest: VTPP continued its 4-H Insect Collection Contest during the annual Hokie BugFest. 4-H agents were encouraged to participate from all counties across the state. The contest was also promoted at local summer camps and schools. Entries were submitted individually and as teams. In 2022, we partnered with the Blacksburg Public Library to serve as a drop-off location, and then transported the collections to Squires Student Center to be judged and displayed during the Hokie BugFest event. There were 12 entries from 6 Virginia counties/cities (Alexandria City, Montgomery, Pulaski, Scott, Washington, and Wythe).

Outreach Event Participation: In 2022, VTPP participated in several public outreach events including the Boy Scouts of America Merit Badge College, Science Museum of Western Virginia Summer Camp, YMCA Healthy Kids Day, NRV Home Expo, Black College Institute at Virginia Tech, and Prices Fork Elementary Science Night. In total, over 1,000 individuals were provided with information and resources focused on pesticide safety and/or general entomology.

Publications, Presentations, and Interviews

VCE Fact Sheets:

- D. L. Frank and S. Wycoff. 2022. Selecting pesticide products (VCE publication ENTO-520NP).
- S. Wycoff and D. L. Frank. 2022. Pesticide spills: Prevention and management (VCE publication ENTO-518NP).

VCE Pest Management Guides (updated sections on pesticide safety and application):

- Flessner, M., S. V. Taylor, et al. including D. L. Frank. 2022. Pest Management Guide: Field Crops (VCE Publication 456-016).
- Hong, C., E. Day, et al. including R. Parson and D. L. Frank. 2022. Pest Management Guide: Horticultural and Forest Crops (VCE Publication 456-017).
- Latimer, J. G., D. Close, et al. including S. Blevins and D. L. Frank. 2022. Pest Management Guide: Home Grounds and Animals (VCE Publication 456-018).
- Pfeiffer, D. G., et al. including D. L. Frank. 2022. Spray Bulletin for Commercial Tree Fruit Growers (VCE Publication 456-419).

Other VCE Publications:

- Frank, D. L., W. W. Surles, and M. J. Weaver. 2022. Demonstration and research pest control: A guide for pesticide educators, researchers, and demonstrators in Virginia (VCE publication 456-227).
- S. Wycoff, and D. L. Frank. IPM and Pesticide Safety, Chapter 7. Virginia Extension Gardener Handbook.
- Blevins, S. 2022. Pesticide Safety Information, Chapter 12. Virginia Greenhouse Operator's Training Manual.

VTPP Quarterly Newsletter: Beginning in May 2020, VTPP released the first issue of its new quarterly newsletter, VTPP Quarterly. Goals of the newsletter are threefold: distribute timely and informative pesticide safety information to a broad audience, create and maintain relationships with VCE personnel, and promote VTPP programs and activities. In its third year, the newsletter was published in the winter (January), spring (April), summer (July), and fall (October) of 2022. We used VCE email listservs and the VTPP website for distribution.

Conference Presentations:

- Frank, D. L., D. Beegle, and S. Blevins-Wycoff. 2022. Hokie BugFest on the Go: Unleashing a passion for entomology in elementary students and teachers. Entomological Society of America Conference. Vancouver, BC.
- Beegle, D., S. Blevins-Wycoff, W. Weaver, and D. L. Frank. 2022. Reaching the next generation of entomologists: Creation and impact of a traveling field trip in Virginia. Entomological Society of America, Eastern Branch Conference. Philadelphia, PA.
- Blevins-Wycoff, S., T. C. McCoy, and D. L. Frank. 2022. Survey of Virginia Extension Master Gardeners identifies top integrated pest management resource needs. Entomological Society of America, Eastern Branch Conference. Philadelphia, PA.
- Hirnyck, R., W. Buhler, S. Whithaus, J. Lampman, P. Curtis, D. L. Frank, D. Herzfeld, G. Fish, J. Edwards, S. Vantassel, J. LaForest, M. Hallinen, and R. Bomberger. 2022. Effective educational tactics utilizing common outcomes from IPM and the Pesticide Safety Education Program. 10th International IPM Symposium. Denver, CO.

Extension and Outreach Presentations:

- Barrow, M., Gregg, C., Parson, R., & Blevins, S. 2022. New agent orientation. Pesticide Safety Educators Workshop. Roanoke, VA.
- Blevins, S. 2022. New River Valley pesticide safety training for master gardeners. Virginia Extension Master Gardener Program. Blacksburg, VA.
- Frank, D. L. 2022. Avoiding problems when tank mixing. West Virginia Nursery and Landscape Association Pesticide Recertification Training. Charleston, WV.
- Frank, D. L. 2022. Nozzle technology to reduce drift. West Virginia Nursery and Landscape Association Pesticide Recertification Training. Charleston, WV.
- Frank, D. L. 2022. An introduction to IPM. Online Virginia Private Pesticide Applicator Recertification Training. Virtual event.
- Frank, D. L. 2022. Nozzle technology and drift reduction. Online Virginia Private Pesticide Applicator Recertification Training. Virtual event.
- Frank, D. L. 2022. Understanding the pesticide regulatory process. Virginia Crop Production Association Crop Summit. Richmond, VA.

- Frank, D. L. 2022. Nozzles, droplet dispersal patterns, and drift management. Southern Piedmont Commercial Pesticide Applicator Recertification Training. Blackstone, VA.
- Frank, D. L. 2022. Nozzle technology to reduce drift. Central Virginia Commercial Pesticide Applicator Recertification Training. Sweet Briar, VA.
- Frank, D. L. 2022. Nozzle technology to reduce drift. Northern Shenandoah Valley Commercial Pesticide Applicator Recertification Training. Winchester, VA
- Frank, D. L. 2022. Nozzle technology to reduce drift. Virginia Tech, College of Agriculture and Life Sciences Pesticide Applicator Recertification Training. Blacksburg, VA
- Frank, D. L. 2022. IPM for commercial pesticide applicators. Southside Virginia Commercial Pesticide Applicator Recertification Training. Chatham, VA.
- Frank, D. L. 2022. IPM for gardeners: History, concepts, and strategies. Virginia Mater Gardener College. Blacksburg, VA.
- Frank, D. L. 2022. Label comprehension. Virginia Department of Corrections Registered Technician Pesticide Recertification Training. Marion, VA.
- Frank, D. L. 2022. Hokie BugFest: Science education for the community. Experience CALS. Blacksburg, VA.
- Frank, D. L. 2022. Introduction to entomology. Hokie BugFest-on-the-Go Traveling Field Trips.
 - Belle Heth Elementary, Radford, VA
 - Critzer Elementary, Pulaski, VA
 - Dublin Elementary, Dublin, VA
 - Montgomery Central High, Christiansburg, VA
 - Pulaski Elementary, Pulaski, VA
 - Riverlawn Elementary, Fairlawn VA
 - Snowville Elementary, Hiwassee, VA
- Ling, E., Parson, R., Frank, D., Spiller, A., & Mohamed, D. 2022. Virginia Tech spray water assessment project (VT-SWAP). Virginia Pesticide Safety Educators Workshop. Roanoke, VA.
- Parson, R. 2022. Developing good pesticide safety education programs. Feeding the Future Bangladesh: Train-the-Trainer Workshops
 - Bangladesh Agricultural Research Council, Dhaka, Bangladesh
 - Patuakhali Science and Technology University, Dumki, Bangladesh
 - Bangladesh Department of Agriculture Extension, Faridpur, Bangladesh
 - Bangladesh Department of Agriculture Extension, Jashore, Bangladesh
 - Bangladesh Department of Agriculture Extension, Khulna, Bangladesh
- Parson, R. 2022. Pesticide exposure effects on the environment. Feeding the Future Bangladesh: Train-the-Trainer Workshops
 - Bangladesh Agricultural Research Council, Dhaka, Bangladesh
 - Patuakhali Science and Technology University, Dumki, Bangladesh
 - Bangladesh Department of Agriculture Extension, Faridpur, Bangladesh
 - Bangladesh Department of Agriculture Extension, Jashore, Bangladesh
 - Bangladesh Department of Agriculture Extension, Khulna, Bangladesh

- Parson, R. 2022. Pesticide exposure and human health. Feeding the Future Bangladesh: Train-the-Trainer Workshops
 - Bangladesh Agricultural Research Council, Dhaka, Bangladesh
 - Patuakhali Science and Technology University, Dumki, Bangladesh
 - Bangladesh Department of Agriculture Extension, Faridpur, Bangladesh
 - Bangladesh Department of Agriculture Extension, Jashore, Bangladesh
 - Bangladesh Department of Agriculture Extension, Khulna, Bangladesh
- Parson, R., Blevins, S., & Appling, A. 2022. Hands-on demonstrations: Toxicology, proper storage, and handling. Virginia Pesticide Safety Educators Workshop. Roanoke, VA
- Parson, R., Bush, E., Flessner, M., Day, E., Frank, D., Blevins, S., & Appling, A. 2022. Invasive species detection and monitoring: Using ID clinics and citizen science apps. VCE Winter Conference. Blacksburg, VA.
- Parson, R., Flessner, M., Bush, E., Day, E., Frank, D., Blevins, S., & Appling, A. 2022. Invasive species detection & monitoring: Using ID clinics & citizen science apps – Part 2. VCE Emerging Pest and Pesticide Management Program Team Meeting. Virtual Event.
- Parson, R, Blevins, S. & Miller, K. 2022. Sprayer equipment calibration. VCE Women in Agriculture Program. Blacksburg, VA.

Interviews:

- Blevins, S. 2022. Instead of using homemade sprays, gardeners should develop pest management plans, Virginia Tech expert. Virginia Tech News.
- Frank, D. L. 2022. Junior entomologists attend Hokie BugCamp. Virginia Tech News, Daily Video.
- Frank, D. L. 2022. Virginia is for bug lovers with Virginia Tech’s five bug-centric events across the state this fall. Virginia Tech News.
- Frank, D. L. 2022. I’ve covered a lot of snakes in my career. These are the worst. Washington Post.

Website and Social Media Statistics

VTPP Website: As a “front door” for information about pesticide safety education and applicator certification, VTPP redesigned its website (vtp.ento.vt.edu/ or vtp.org) in 2020 to be more user friendly, intuitive, and aesthetically pleasing. The website provides greater ease of navigation and site accessibility for its users, and it offers a wealth of information for its major client groups. The site provides a platform to keep pesticide applicators up to date on any changes to state and federal regulations, as well as provide information on the wide range of topics that its clientele request on a daily basis. The website menu provides links to specific resources for Extension agents, pesticide applicators, pesticide businesses, and the public. Resources include general information about certification and recertification requirements in Virginia, relevant forms, available training opportunities, pesticide laws and regulations, and frequently asked questions. The website provides information for potential pesticide applicators on how to purchase training manuals and register for online certification preparation courses. In addition, the website provides links to IPM and pesticide safety resources developed by Virginia Tech, VCE, VDACS, and other national IPM and pesticide safety information resource groups. The website received 24,326 total pageviews (81% were unique visitors) in 2022.

VTPP Consumer Pesticide Safety Website: In August 2019, VTPP launched its Consumer Pesticide Safety Website (sites.google.com/vt.edu/vtppconsumerpse), which delivers pesticide safety information to the general public. The site employs an easy-to-use navigation scheme and a wealth of graphics to cover topics such as the safe and proper use of pesticide products, personal protective equipment, proper storage and disposal of pesticides, what to do in a pesticide emergency, pesticide resistance, and integrated pest management. The website is regularly updated with new resources added. The website received 327 total pageviews (92% were unique visitors) in 2022.

VTPP Social Media: VTPP maintains two social media accounts on Facebook; a Larry the Label account that focuses on providing pesticide safety updates and information, and a Hokie BugFest account that focuses on providing information about outreach opportunities provided by VTPP as well as general entomology related information. The Larry the Label account had 25 total daily users with a daily total reach of 773 in 2022. The Hokie BugFest account had 513 total daily users with a daily total reach of 15,321 in 2022.