INVASIVE SPECIES
*Manduca sexta*

COMMON NAME
Tomato hornworm

PLANT HOSTS
Tomato
Pepper
Tobacco
Potato

DAMAGE
Defoliation of foliage and damage to young fruit

CONTROL
Biological control
Pesticide treatment

Creators

HANNAH TALTON, Editor
DPM Student - University of Florida

AMANDA HODGES, PhD, Co-Editor
DPM Director - University of Florida
Alumni, Friends, Faculty, and Students:

The 2020-2021 academic year has had a challenging beginning, but our students are embracing the academic year and working diligently towards their degree goals. During Fall Semester 2020, we were pleased to welcome the following new students: Brianna Benitez, Sarah Birkmire, Adam Pitcher, and Abigail Prohofsky! As you will discover during your reading of DPM News, our graduating Fall 2020 students have also already either accepted or started new careers with their DPM degree. Despite the challenging economic times that our world is encountering, the critical thinking and knowledge skills of our graduates remain timely and relevant as students approach graduation.

As 2020 has been a year of changes and adapting to new circumstances, we will adapt our 2nd Annual Conference of Plant Doctors and Plant Health Professionals to an entirely virtual platform during 2021, and the event will be on Saturday, February 27, 2021. Our February Flora and Fauna Fest will also be entirely online, and content will be available for an extended period of time and designed to generate excitement related to the attendance of future events. Although we would have preferred an in-person gathering for both events, we are mindfully concerned about the well-being of our guests, alumni, students, staff, and faculty. We look forward to an in-person conference and festival during 2022 once COVID-19 vaccines have been more widely distributed. In the interim, we are hoping that this will be an opportunity more globally connect with our alumni through a virtual meeting. During our virtual meeting, we will award the 2nd scholarship in honor of the late Dr. George Agrios. Thanks to the Martin Law Firm, the family of the late Dr. George Agrios, faculty, alumni, and Agromillora, we were able to offer our first $1,000 scholarship during February of 2020. Although we have raised $30,000 for a formal Dr. George Agrios Endowment, the need to further grow the endowment fund for annual scholarship award, the addition of future awards, or future graduate stipend or tuition expenses for students. As the Dr. George Agrios Endowment is completely devoted to DPM students, your donation to this fund 100% supports DPM student scholarship and education. The website link for the Dr. George Agrios Endowment is available at: Dr. George Agrios Scholarship Endowment - University of Florida Advancement (ufl.edu)

Your support of DPM students is invaluable to their success and professional development. Thank you for all you continue to do in support of the DPM Program, Alumni, and Students!

Sincerely,

Dr. Amanda Hodges
Director, Doctor of Plant Medicine Program
PROGRAM EXHIBITS, ACTIVITIES, AND STUDENT RECRUITING

SEPTEMBER

- DPM students Andy Jean-Louis, and Sarah Birkmire worked alongside Dr. Amanda Hodges, Dr. Muhammad Haseeb of Florida A&M, and Dr. Mrittunjai Srivastava of FDAC-DPI to deploy frozen Brown Marmorated Stink Bug (BMSB) eggs at the Florida A&M Center for Small Fruit and Viticulture Center for Research in Tallahassee, FL.

OCTOBER

- DPM students Andy Jean-Louis, Sarah Birkmire, Hannah Talton, and Dr. Gideon Alake worked alongside Dr. Amanda Hodges to host a virtual Tomato Leaf Miner, *Tuta absoluta* training course.
- DPM student Hannah Talton volunteered with MANRRS at Grow Hub.

NOVEMBER

- DPM students Heather Kalaman and Keir Hamilton worked on UF-Syngenta collaborative Hemp research trial.
- DPM-alum Dr. Johanna Welch presented on bed bugs during FDACS Department-wide AgScience Café.
- DPM student Adam Pitcher and DPM Director Dr. Amanda Hodges create Pest Alert for Black Bean Bug *Brachyplatys subaeneus* (Hemiptera: Plataspidae).

DECEMBER

- DPM student Hannah Talton volunteered with MANRRS at UF Field and Fork.
- The DPM public relations team has been hard at work sharing new content on all social media platforms, such as Faculty Highlights and interviews with Dr. Norman Leppla, Dr. Nicholas Dufault, and Dr. Gregory MacDonald.
NEW STUDENT PROFILES

ABIGAIL PROHOFSKY

Academic Credentials:
• B.S. in Entomology and Nematology – University of Florida
• Enrolled DPM program

Why DPM?
The Doctor of Plant Medicine program offers unique opportunities for work experience. This, combined with its interdisciplinary nature, is what drew me to DPM over a traditional academic program.

SARAH BIRKMIRE

Academic Credentials:
• B.S. in Environmental Management – University of Florida
• Co-enrolled in M.S. in Entomology and DPM program

Why DPM?
I chose the DPM program because of its interdisciplinary nature. I am interested in becoming an expert in all topics related to plant health. I realized my passion for plants by growing my own fruits, vegetables, herbs, and flowers at home. I love hiking and the outdoors, and I decided that a career working in nature would make me the happiest. These interests shaped my goals for higher education, and my thirst for knowledge has yet to be quenched. I hope to one day be a crop consultant and run my own farm!
ADAM PITCHER

Academic Credentials:
- B.S. in Natural Resource Conservation – University of Florida
- Enrolled DPM program

Why DPM?
I chose the DPM program because it’s the perfect fit for me! Having worked with UF/IFAS Extension for 6 years, I’ve developed a background in Entomology, Botany, & Plant Pathology, but was trying to decide which academic & career path I would choose. When I learned about the DPM program, I was immediately enthralled as this program will allow me to combine all of my current experience & interests as well as forging an excellent foundation for their practical application.

BRIANNA BENITEZ

Academic Credentials:
- B.S. in Environmental Science – Broward College
- Enrolled DPM program

Why DPM?
I chose the DPM program because of the extensive courses offered in Plant Pathology, Entomology, and Soils. The experiences provided through the program will help me to accomplish my goal of becoming a plant diagnostician, as well as an extension specialist who is able to help others learn more about the environment around them. I also really enjoy mushroom hunting and identification.
Congratulations to Heather Kalaman for defending her Masters thesis titled “Evaluating floral attraction and resource value of native and non-native ornamentals for pollinating insect communities” from the Environmental Horticulture Department.

Congrats Heather!

Congratulations to Hannah Talton for publishing her first manuscript titled: Effect of cultural practices on Neopamera bilobata in relation to fruit injury and marketable yields in organic strawberries.

Congrats Hannah!

Congratulations to Adam Pitcher for publishing his manuscript titled: First report of Brachyplatys subaeneus (Westwood Hemiptera: Heteroptera:Plataspidae) in the United States.

Congrats Adam!

Congratulations to Keir Hamilton for publishing his article titled: Industrial Hemp Diseases in Florida: What We Know So Far.

Congrats Keir!

Congratulations to Zach Eldred for publishing his article titled: Industrial Hemp Diseases in Florida: What We Know So Far along side DPM Faculty Advisor Dr. Nicholas Dufault.

Congrats Zach!

Congratulations to Matt Borden for receiving a job offer from Bartlett Tree Experts.

Congrats Matt!
Why did you choose to enroll in the DPM program?

I chose to enroll in the DPM program because of the interdisciplinary scope of the degree. I liked how it incorporated all aspects of crop production instead of the narrow focus of a traditional PhD program. When looking into graduate programs I knew that I wanted to have a career in industry where it is more effective to have a degree where you are able to learn extensive knowledge and tools from all disciplines of agriculture in an applied manner and the DPM degree is perfect for that.

After graduation, what career paths/opportunities were available to you?

There are several career paths available with this degree depending on what preferences you have. I wanted to have an industry career so the type of jobs available that I was interested in were crop consulting, research, technical service roles, and agronomic roles. However, you can also go into academia or government jobs if that is where your interest lies. This degree gives you the availability to really do whatever you want.

What is your current occupation, and how has your DPM degree aided you in the tasks and responsibilities associated with your position?

I am currently the agronomist for the Sugarcane Growers Cooperative of Florida in the Everglades Agricultural Area where we grow sugarcane and rice in rotation with each other. My main responsibilities include our spray and fertilizer programs, implementation of precision ag, and developing research trials that may benefit or improve how we grow our crops. My DPM degree helps me with my job daily. In order to manage a spray program, you must be able to correctly identify the pests that you are trying to control whether it’s an insect, pathogen, or weed. The DPM program teaches you how to identify pests and the resources available to determine the appropriate management tactic for those pests. In addition, while in the DPM program you learn in depth about nutrient management and the functions of nutrients so that I can make sure we are applying only what our crops need in the most efficient way possible.

Are there any challenges that your DPM degree has helped you overcome?

The DPM degree has increased my knowledge base and critical thinking skills to give me a greater and more well-rounded understanding of crop production. While I cannot attribute a specific challenge, I believe the DPM degree helps me with every challenge I am faced with due to my greater critical thinking skills and knowledge that I learned from the program.

Do you have any advice for current DPM students?

I would advise current DPM students to take every opportunity available to you while in college. This will help make you more valuable and give you great experience that will ensure you stand out once you graduate. I would also suggest taking as many in person classes that you can. While online classes are extremely valuable, I’ve found that you gain a better understanding of the material from interacting with the other students in the class where more questions are asked that you may not have thought of which in turn improves the quality of your education. Finally, I would advise you to choose your internships wisely. Try to pick internships that align with your career goals. This will help you in several ways: it adds experience to your resume, helps build your base network, or helps you realize that it may not be the right career path for you. Also, try to pick internships that expand the knowledge you learn in the classroom.
CONGRATULATIONS TO OUR GRADUATES

We asked our graduates to share a few words on their time as a DPM student and their next steps.

I truly enjoyed my time as a DPM student. I got to learn not only from my professors, but my peers who had a wide range of previous experiences and expertise to share. My interests have always been interdisciplinary and systems based, the DPM program allowed me to tailor my studies to that continued interest in the field of plant health diagnostics. There are many fond memories that highlight my time as a DPM student. The program’s first trip to see the tropical agriculture, culture, and rainforest of Ecuador was an incredible experience (shout out to DPM graduates Dr. Lisbeth Espinosa and Dr. Daniel Mancero Castillo!). I enjoyed the opportunity to conduct research on arthropod pests of olive in Florida through the University, and on the Asian citrus psyllid at the USDA. Food justice is something near and dear to my heart, and spending time working in and with the guests at Gainesville’s low-barrier homeless shelter in their food and flower garden helped me see how I can continue to be an advocate for a more equitable and accessible food system in the future. Presently, I am thrilled to be back in my hometown of Nashville. I am working as a plant pathogen and insect diagnostician at the University of Tennessee Soil, Plant and Pest Center with an 100% Extension appointment.

As my time as a DPM student drew to a close this semester, I reflected on how it is not so common to end graduate school knowing with confidence that you did the right program. For me, landing in the Turf and Ornamental Entomology Laboratory, in conjunction with the DPM program, was idea. I believe that the scope of knowledge and training that the DPM program provides us truly is invaluable, and we should grasp that skill of adaptability with confidence, regardless of where we go after graduation as we continue to learn about new areas of plant healthcare. After all, we come to graduate school not to quickly gain all available knowledge, but to learn how to learn, and to recognize what we have yet to learn. I am also very grateful for the networking opportunities that DPM affords us across so many fields of study, different professional societies, and half a dozen academic departments, not to mention the internships and jobs that came about as a direct result. I’m also excited to share that I’ve accepted a full-time Plant Pathologist position with Bartlett Tree Experts starting later in the Spring. I will primarily be conducting applied research on tree diseases and disorders at their lab and arboretum in North Carolina and developing audio/visual training for Bartlett arborists and plant healthcare technicians caring for landscapes around the country.
OFFICER ELECTIONS

The DPMSO held new officer elections in Fall! Congratulations to our 2020 officers!

**President:** Brianna Whitman  
**Vice President:** Nick Goltz  
**Treasurer:** Julia Rycyna  
**Secretary:** Heather Kalaman  
**GSC Rep:** Andy Jean Louise  
**Historian:** Hannah Talton

DPMSO’S Virtual FFFF!

SAVE THE DATE for our virtual FFFF! Last year was a great success, and we are excited to see you on zoom! We will have virtual activities and UF clubs relating to flora and fauna! Check out some insect related crafts and attend our workshops for adults and children. All proceeds go to fund the Agrios scholarship fund for Doctor of Plant Medicine students.
If the shoe fits...
Why DPM might be right for you!

1. Do you want to know more about plant disease management, arthropod pest or nematode management, crop nutrition and agronomy, or horticultural sciences?

2. Are you interested in hands-on curriculum that allows you to work in the field and/or in a lab, internships with local businesses or federal agencies, and interdisciplinary studies?

3. Do you aspire to work in academia, industry, extension, or regulatory?

4. Do you enjoy opportunities to get involved with community outreach, networking, and attending professional development workshops, seminars, and scientific conferences?

5. Do you prefer application-based science?

If you answered yes to most of the questions listed above, then we recommend that you explore your graduate career options with the UF DPM Program!

**ALREADY ENROLLED IN A GRADUATE DEGREE PROGRAM?**

Contact our program for more information about potential dual-enrollment!

Entomology and Nematology Department, UF/IFAS
Steinmetz Hall
1881 Natural Area Drive
P.O. Box 110620
Gainesville, FL 32611
Phone: (352) 273-3903
E-mail: ealyanaya@ufl.edu
SOME OF OUR PLANT DOCTORS IN ACTION...
DPM STUDENTS

Clayton Bania
Florida, USA

Brianna Benitez
Florida, USA

Sarah Birkmire
Florida, USA

Matt Borden
Virginia, USA

Alex Deiulio
Florida, USA

Zach Eldred
West Virginia, USA

Jenny Gavilanez-Slone
Florida, USA

Nick Goltz
Florida, USA

Keir Hamilton
Florida, USA

Andy Jean-Louis
Cap-Haitien, Haiti

Heather Kalaman
Florida, USA

Shannon McAmis
Florida, USA

Chastity Perry
Florida, USA

Eleanor Phillips
Tennessee, USA

Adam Pitcher
Florida, USA

Abigail Prohofsky
Florida, USA

Julia Rycyna
Maryland, USA

Taylor Smith
Florida, USA

Hannah Talton
North Carolina, USA

Brianna Whitman
Idaho, USA
External Advisory Committee

BEN BOLUSKY
Chief Executive Officer, Florida Nursery, Growers and Landscape Association

REGGIE BROWN
Former Executive Vice President, Florida Tomato Exchange

TREVOR SMITH
State Plant Regulatory Official/Director, FDACS-Division of Plant Industry

MARY HARTNEY
President and Executive Director, Florida Fertilizer and Agrichemical Association, Committee Chair

GARY HEIN
Doctor of Plant Health Director, University of Nebraska

RICHARD MIRANDA
Florida State Plant Health Director, USDA-APHIS-PPQ

MADELINE MELLINGER
President, Glades Crop Care, Past Committee Chair

CLAY PEDERSON
Managing Director, Agromillora Florida, Chair of the DPM Alumni Support Committee

TAM DURHAM
Associate Professor of Crop Science, Ferrum College, Vice Chair of the DPM Alumni Support Committee

MARTHA RHODES ROBERTS
Former FDACS, Deputy Commissioner of Agriculture, Adjunct Professor, University of Florida

MARK MOSSLER
DPM Alumni Representative

Faculty Advisory Committee

JOHN CAPINERA
Entomology and Nematology Department

BILLY CROW
Entomology and Nematology Department

NICK DUFALUT
Department of Plant Pathology

NORMAN LEPPLA
Entomology and Nematology Department

OSCAR LIBURD
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JOHN PETERSON
Environmental Horticulture Department

KEITH SCHNEIDER
Food Science and Human Nutrition Department

JASON SMITH
School of Forest Resources and Conservation

J. STACY STRICKLAND
County Extension Director, Osceola County

XIN ZHAO
Horticultural Sciences Department

Doctor of Plant Medicine Student Organization (DPMSO)

BRIANNA WHITMAN
President

NICK GOLTZ
Vice President

HEATHER KALAMAN
Secretary

JULIA RYCYNA
Treasurer

HANNAH TALTON
Historian

ANDY JEAN-LOUIS
GSC Representative

AMANDA HODGES
Faculty Advisor

DPM Program Staff

AMANDA HODGES
DPM Director

ELENA ALYANAYA
Academic Advisor I