

# Virtual Workshops on Invasive Species Increase CEU Opportunities For Pesticide License Holders

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## Situation

Invasive species pose significant threats including economic losses in agriculture, human and animal health hazards, disruption of native ecosystems and more. In the US, losses are estimated to cost over \$120 billion annually. Florida has a high risk for the introduction and establishment of invasive species and thus, education on related topics are critical to protecting agriculture and natural resources. Central Florida Cooperative Invasive Species Management Area (CFCISMA) is a volunteer-based organization supported by a variety of professionals working in invasive species including representatives from regulatory agencies, local government, plant clubs, landscaping companies, homeowners and more. CFCISMA hosts in-person educational opportunities on invasive species annually and serves an important role for professionals to obtain Continuing Education Units (CEUs) to maintain their licenses. During the COVID-19 pandemic, CFCISMA-led education shifted to a virtual format. UF/IFAS Extension Seminole County increased involvement and collaboration with CFCISMA in the last two years.

## Education Methods

In 2021, we hosted two invasive species webinars via Zoom. Agendas were designed for both professional and public audiences based on feedback from the CFCISMA Steering Committee. Speakers from multiple agencies were invited, including experts from UF, the Florida Department of Agriculture and Consumer Services (FDACS) and the United States Department of Agriculture (USDA). The webinars were approved for FDACS pesticide Continuing Education Units (CEUs) in 10 categories. CEU attendance was tracked using Zoom records, polls, and chat box interaction. Post-webinar and 3-6 month follow up surveys were utilized to measure outcomes. Certificates of attendance were also issued to all attendees.

## Promotional Flyers



Flyers used to advertise the two webinars through multiple channels including email listservs, printed flyers, social media, and direct communication with over 30,000 stakeholders.

## Presentations



Dr. Josh King presenting on current research towards managing the red imported fire ant.

Dr. Greg Wheeler speaking on the use of insects for biological control of Chinese tallow.

## Webinar Recordings



Invasive Species: Friend or Foe?



The World of Invasive Species: Insect Edition



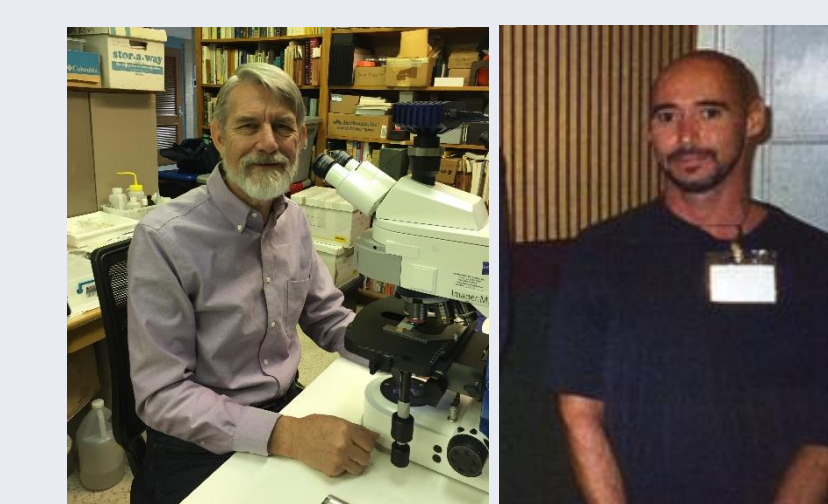
Certificate of attendance issued to attendees.



## Webinar Speakers



Tina McIntyre (left) and Dr. Morgan Pinkerton (right); UF/IFAS Extension Seminole County



Dr. Gary Steck (left) FDACS-DPI, and Scott Weihman (right) USDA-APHIS-PPQ



Dr. Carey Minter (left) and Dr. Bill Kern (right) UF



Scott Weihman (left) USDA-APHIS-PPQ, and Dr. Greg Wheeler (right) USDA-ARS

## Results

The two webinars were highly successful with over 590 participants from across the state, and more than 450 pesticide CEUs were issued to attendees.

In a post-webinar survey:

- 99.6% (528/530) increased their knowledge on invasive species
- 98.3% (521/530) intended to adopt at least one practice learned

In the 3-6 month follow up survey:

- 97.1% (304/313) had adopted at least one practice since attending...
- 59.4% have planted native plant species instead of invasive species
- 58.1% have taken caution as to not introduce/spread invasive species
- 52.7% have educated others about invasive species
- 50.2% used integrated pest management strategies to control invasive species
- 10.9% volunteered in invasive species control efforts (ie. an invasive species round-up event)
- 7.3% have submitted a sample of a suspect invasive pest or plant

## Conclusions

The high attendance rates and strong reported outcomes demonstrate the success of these webinars. They also served an important educational need within the local community as attendees reported both knowledge gain and adoption of sustainable practices. The virtual format allowed for a larger audience without geographic limits and also, addressed stakeholder CEUs needs. We have already begun preparations for more webinars in 2022 and intend to improve these webinars based on experiences and feedback. Additionally, other agents have reached out for guidance on hosting similar programs.