UF | IFAS Extension
UNIVERSITY of FLORIDA

FLORIDA ASSOCIATION OF AGRICULTURAL AGENTS

FACAA MID-YEAR MEETING AND PROFESSIONAL DEVELOPMENT CONFERENCE

ABSTRACT PROCEEDINGS

CAMP WEED & CERVENY CONFERENCE CENTER
LIVE OAK, FL
APRIL 3 - 4, 2018

FACAA Mid-Year Meeting and Professional Development Conference

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April 3

8:00 am	Planning Team Arrival
9:00	Communications Committee Judging (Tentative)
	• Daniel Leonard and Matt Orwat
10:00	FACAA Board Meeting
11:00	Set up for Posters
	• Martha Glenn and Ralph Mitchell
12:00 pm	Membership luncheon
12:45	General Membership Meeting
2:45-3:10	Administrative Update
	• Saqib Mukhtar, Associate Dean for Extension and Agricultural Program Leader
3:10	Room check-in
3:40	Agent-Specialist Abstract Presentation
5:00-6:00	Poster Presentation and Punch
6:30	Supper

April 4

7:00 am	Breakfast
7:30-8:15	Vans depart for tours
	• Horticulture Tour led by Carolyn Saft • Livestock Tour led by Jane Griffin & Paulette Tomlinson • Crops Tour led by Dee Broughton & Dan Fenneman
11:30	Lunch at the Suwannee Station
	• Capstone Presentation: John Hoblick, Farm Bureau Federation President
1:30 pm	Adjourn

2018 FACAA Mid-Year Meeting Committee:

Libbie Johnson – Escambia County - Chair

Dan Fenneman – Madison County – Co-Chair

Mace Bauer – Columbia County

David Holmes – Marion County

Laurie Hurner – Highlands County

Chris Miller – Palm Beach County

Mark Shuffitt – Marion County

Bonnie Wells – St. Johns County

Keith Wynn – Hamilton County

2018 FACAA Professional Development and Abstract Committee

Tim Wilson – St. Johns County – Chair

Dennis Mudge – Volusia County – Co-Chair

Nichelle Demorest – Columbia County

Jim DeValerio – Bradford County

Marth Glenn – Manatee County

Erin Harlow – Duval County

Luke Harlow – Clay County

Doug Mayo – Jackson County

Ron Rice – Palm Beach County

Carolyn Saft – Suwannee County

Jessica Sullivan – Osceola County

Jeff Wasielewski – Miami-Dade County

Abstract Session

April 3, 2018
3:40 – 5:00

Room: Saffran
Moderator: Tim Wilson

3:40 – 4:00 **Small plot peanut fungicide efficacy trials**
K. Wynn*, N. Dufault*, C. Vann*, D. Fenneman*, D. Broughton*, P. Troy*

4:00 – 4:20 **Improved scouting methods using UAV-assisted multispectral imaging in cucurbit crops**
M. Lollar*, M. Kalischuk*, M. Paret, J. Freeman, S. Eubanks, Z. Wiggins*, S. Wright, D. Raj

4:20 – 4:40 **Applying extension education and research to improve and expand rice production in Florida**
M. VanWeelden* and J. Bhadha

4:40 – 5:00 **Escambia County beef cattle and forage bootcamp**
N. Simmons*, L. Johnson*, M. Wallau, A. Blount, N. DiLorenzo, L. Canal, W. Kelly

Room: Young
Moderator: Jim DeValerio

3:40 – 4:00 **Protecting agriculture for future generations through conservation easements**
J. Sullivan*, E. F. Pienaar*, R. Boughton, and C. Demers

4:00 – 4:20 **Development of a weekly series focusing on weed management**
K. Waters*, J. Griffin*, and B.A. Sellers

4:20 – 4:40 **Improving rancher management decisions by creating agent and specialist synergy**
L. Harlow*, J. Ferrell*, P. Tomlinson, C. Sanders, K. Korus, A. Halbritter, C. Cooper, E. Jennings, D. Nistler, D. Fenneman, K. Wynn, J. Griffin*

4:40 – 5:00 **Research/extension partnership benefits farmers**
J. DeValerio*, S. Thompson*, M. Pinkerton* and A. Hodges*

Research/extension partnership benefits farmers

J. DeValerio*[1], S. Thompson*[2], M. Pinkerton*[2] and A. Hodges*[2]

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A graduate research project on stink bugs in crucifer crops enhanced Extension outreach while benefiting researches and farmers. Objective: To demonstrate the cost savings potential of routine scouting of agronomic pests as a part of integrated pest management. Methods: The bagrada bug, Bagrada hilaris (Burmeister) (Hemiptera: Pentatomidae), is an invasive pest of the family Cruciferae that was first detected in California in 2008 and has since spread to New Mexico, Nevada, and Arizona. Crucifer production in Florida is a significant agricultural commodity with cabbage alone having a value of seventy million dollars in the 2009-2010 growing season. In order to better understand current pentatomid pest pressure, stink bug populations in kale, mustard, collard greens, and brussel sprouts were systematically characterized using yellow pyramid traps, sweep sampling and scouting biweekly on five farms in 2016-2017 and four farms in 2017-2018 with two locations per farm. Results: Researchers successfully characterized stink bug populations at each Bradford County farm for the identified growing seasons. The agent's program outreach was enhanced by scientist involvement. Farmer–scientist-agent interaction occurred with all participants with assistance in disease, weed and other insect pests being addressed. One farmer expressed great satisfaction in receiving personalized pest management consulting that he valued at $500. Conclusion: Everyone learns when the Teaching, Research and Extension model bridges the gap between science and farmers.

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Improving rancher management decisions by creating agent and specialist synergy

L. Harlow*[1], J. Ferrell*[2], P. Tomlinson[3], C. Sanders[4], K. Korus[4], A. Halbritter[5], C. Cooper[6], E. Jennings[7], D. Nistler[8], D. Fenneman[9], K. Wynn[10], J. Griffin*[11]

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[3]UF/IFAS Extension Columbia County
[4]UF/IFAS Extension Alachua County
[5]UF/IFAS Extension Duval County
[6]UF/IFAS Extension Citrus County
[7]UF/IFAS Extension Levy County
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[9]UF/IFAS Extension Madison County
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Objectives: Smutgrass (*Sporobolus* sp.) continues to be one of the top weed issues in improved perennial grass pastures in Florida. Hexazinone has been the recommended herbicide treatment for smutgrass control. The objective of this demonstration was to provide a visual illustration of the effectiveness of smutgrass treatments using hexazinone at different points in the year and to provide producers with recommended application times in the year to maximize the herbicide efficacy. **Methods:** The demonstration was conducted at the Sante Fe River Ranch in Alachua, FL in collaboration with the North Florida Livestock Agents Group (NFLAG) and Dr. Jason Ferrell, UF/IFAS Professor of Weed Science in the Department of Agronomy. Eight bahiagrass plots were treated at two different rates (2 and 4 pints/acre) spaced one month apart between April, May, June, and July. **Results**: Smutgrass control varied between each application month, with low percentage control in April and high percentage control in July. Results were demonstrated to producers at the 2017 Livestock and Forage Field Day in late July. According to seventeen pre-post surveys collected, 88% (n=15) indicated that before the smutgrass demo, their understanding of factors that contributed to herbicide failure/success was neutral to very low, and after the demo, 94% (n=16) indicated their understanding was high or very high. **Conclusion**: Synergy between county extension agents and extension specialists ensures that ranchers are receiving the most recent and valid information available to help them make agriculturally sound management decisions.

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Improved scouting methods using UAV-assisted multispectral imaging in cucurbit crops

M. Lollar*[1], M. Kalischuk*[2], M. Paret[2], J. Freeman[2], S. Eubanks[3], Z. Wiggins*[3], S. Wright[2], D. Raj[4]

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Agriculture-based multispectral imaging is gaining popularity, but documentation of its disease diagnostic benefits is limited. **Objective:** To develop best practices for incorporating drones and multispectral imaging with conventional crop scouting methods. **Methods:** Multispectral imaging data were collected and analyzed from two commercial watermelon fields located in north Florida. The fields were rated for disease incidence and severity at random locations (conventional scouting) first followed by assessments at locations that were identified by differences in stress index and Normalized Difference Vegetation Index (NDVI) through multispectral imagery on an Unmanned Aerial Vehicle (UAV) platform (UAV-assisted scouting). Diseases identified in the watermelon fields included gummy stem blight, anthracnose, fusarium wilt, Phytophthora fruit rot, Alternaria leaf spot, and Cucurbit leaf crumple disease. **Results:** Higher severity ratings of 4 and 5 (on a scale of 0-5 from no disease to complete loss of the canopy) were more common after the scouts used the stress images in determining the locations for sampling. Experienced scouts tended to rate higher severities than lesser-experienced scouts. The UAV-assisted scouting locations had significantly greater green, red, and red edge NDVI and lower stress index values than the scouted areas located using multispectral imagery ($p<0.05$, ANOVA/Tukey). **Conclusion:** While progress has been made to identify some diseases using multispectral imaging, conventional scouting involving human evaluation remains necessary to validate other types of diseases. Multispectral imagery improved the output of watermelon field scouting due to the increased ability to identify hot spots and areas of concern more rapidly than conventional scouting practices.

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Escambia County beef cattle and forage bootcamp

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The Escambia County Beef Cattle & Forage Bootcamp was a multi-county, multi-state collaboration among Extension agents, specialists and graduate students to deliver an educational program to beef cattle producers in Northwest Florida. The program was held on a 30-acre multipurpose livestock facility in Molino, Florida. Objectives: 1. Increase knowledge of Beef Quality Assurance best management practices within the beef industry, 2. Demonstrate multiple varieties of winter forages to be implemented into beef cattle grazing systems in Northwest Florida, 3. Demonstrate beef cattle pregnancy detection through different technologies 4. Educate producers on beef cattle feed supplementation requirements in relation to hay quality. Methods: Sixty individual forage demonstration plots were planted in November to highlight growth potential of various winter forages and wildlife food plot blends. Program was developed from input by the Agriculture Advisory committee. Arrangements for live cattle demonstrations were made by partnering with local cattlemen. Promotional materials were developed and disseminated through local public information office and social media. A ten-question survey was developed and offered after the lunch presentation. Results: 51 attendees, 28 evaluations returned. 89% (25/28) planned to implement changes based on information, especially in winter grazing supplementation and forage varieties. All returned surveys reflected that respondents were very satisfied with the program. Conclusions: The attendees were very receptive to the practical information. All wanted this to continue as an annual event. 96% (27/28) said that the program would help them to save money in their operation. Respondents provided eight suggested topics for future bootcamps.

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Protecting agriculture for future generations through conservation easements

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Florida agricultural lands are under intense pressure from urbanization. These lands benefit society by providing wildlife habitat, scenic views, food production, flood prevention, drinking water protection, and agritourism. Conservation easements allow landowners to preserve their lands for agriculture, natural resources, or cultural heritage. **Objectives:** 1) Increase landowner knowledge of the benefits and logistics of enrolling in conservation easements; 2) Connect landowners with easement programs and resources; 3) Preserve Florida agricultural lands. **Methods:** Agent and Specialists coordinated a five-hour pilot Conservation Easement Workshop that was promoted statewide. Experts presented information on: how conservation easements protect the agricultural uses and conservation value of land; the logistics of enrolling in easements (tax implications, property appraisals, and easement monitoring); different easement programs that are available to landowners. Government agencies that offer easements participated in a panel discussion, answering participant questions. **Results:** Forty-five landowners, industry and agency representatives, and Extension Agents attended the workshop. Participating landowners own 350,000 acres of land. Post-event surveys (N=32) indicated that 90% of participants (n=29) learned a "moderate" to "considerable" amount of new information, and 69% (n=22) said the workshop helped them identify useful resources for pursuing an easement. **Conclusions:** In promoting the workshop, coordinators identified substantial misunderstanding among Extension Agents and landowners regarding conservation easements, as well as further training needs to educate people on this complex topic. Additional workshops and ISTs are being planned around the state. A follow-up survey will be sent to landowners at six and 12 months to determine whether they have enrolled in easements.

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Applying extension education and research to improve and expand rice production in Florida

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In Florida, flooded rice is produced as a rotational crop with sugarcane because of the benefits in reducing negative impacts from soil subsidence; however, growers face numerous challenges including pests and diseases, limited varieties, and water management. To continue the adoption and expansion of rice in the region, extension and applied research programs were implemented by UF/IFAS faculty. **Objectives:** To provide research-based recommendations to Florida rice growers by developing technical workshops and online educational materials in order to address continuing and newly emerging problems within the industry. **Methods:** County and state faculty members developed the inaugural Rice Variety Technical Workshop to address the needs to rice growers in Florida by providing multi-disciplinary, lecture-based modules. In addition, this team of county and state faculty members developed the 1st edition of the online "Florida Rice Handbook" to distribute among the rice industry. **Results:** Based on results from paper and Qualtrics evaluations, percent knowledge gained was 52% for nutrient management, 65% for stem borer identification and management, 61% for rice water weevil management, 34% for water management and quality in cultivated rice, and 42% for rice variety assessments. Mean percent knowledge gained across all topics was 41%. **Conclusions:** Workshops and online handbooks developed by this team of county and state faculty will assist in the dissemination of pertinent educational material to members of the Florida rice industry, promoting the expansion of this industry which is vital to the longevity of southern Florida's agroecosystem.

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Development of a weekly series focusing on weed management

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The control of weeds in pastures and agronomic crops is an economically important management practice for producer. Having a knowledge of best management practices, as they relate to weed control and the application of herbicides, allows for improved efficiency and effectiveness of control, resulting in improved control and reduced negative impacts of improper herbicide application. **Objective** 1) Develop a readily available online resource to utilize for weed identification, 2) Increase the ability of producers to properly identify common weeds throughout the production cycle, and 3) Producers will have an improved understanding timing of application and chemical selection for economically important weeds. **Methods:** In collaboration with a state specialist, two county agents developed a series of factsheets that include general information, plant identification, control methods and pictures of common weeds throughout the region. On a weekly basis, weeds that are in season, are posted on multiple social media sites, through district newsletters, and on blogs. After 50 posts, clientele will be surveyed to gather data on the impact of the program. Clientele are encouraged to complete the survey through the opportunity to win chemicals provided from sponsorships. **Results:** Since beginning in 2017, a total of 19 weekly posts have been made and shared on 2 social media pages, blogs and 1 electronic newsletter. The 19 posts to the Panhandle eNews alone have resulted in a total reach of 3,591. **Conclusions:** Improving knowledge of weed management has been effectively achieved through the sharing of factsheets electronically, on a weekly basis.

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Small plot peanut fungicide efficacy trials

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Peanut is an important commodity crop in the Suwannee River Valley. In 2017, 45,000 acres of peanuts were planted in counties surrounding the North Florida Research and Education Center (NFREC) – Suwannee Valley. A peanut disease research program led by Dr. Dufault was established to address management needs of this commodity. **Objectives:** To (1) assess the efficacy of commonly used peanut fungicide programs, and (2) provide local Extension agents with experiential learning opportunities related to disease management. **Methods:** UF/IFAS Plant Pathologist, Nicholas Dufault and UF/IFAS Hamilton County Extension agent, Keith Wynn collaborated with NFREC – Suwannee Valley staff in 2015 to incorporate replicated small plot fungicide trials at the center. This trial evolved into a yearly research program that evaluates the efficacy of various fungicide treatments. Dr. Dufault is responsible for determining the fungicides tested, retrieving chemicals, and interpreting data collected from the trials. Local Extension agents are responsible for applying fungicide applications and taking disease ratings. **Results:** Data collected from disease ratings and yields are used to generate fact sheets, publications, and presentations that are distributed in production meetings throughout the state. Extension agents receive hands-on training with fungicide application methods and disease identification which increases their confidence when interacting with producers. **Conclusions**: This research allowed Extension agents to provide producers with timely information about the efficacy of fungicide products and monitor diseases throughout the season. Because of these trials, producers have seen the benefit of incorporating fungicides into their management programs and have made changes to their disease management plans.

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