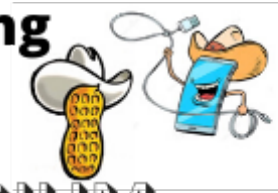


# WELCOME



## 52nd Annual Meeting

July 14-16, 2020 - Virtual Format



## AFLATOXIN SYMPOSIUM

July 14, 2020

1:00PM - 3:00PM CST

2:00PM - 4:00PM EST

Via Zoom Webinar

### **AFLATOXIN: IMPACTS AND CHALLENGES FOR THE U.S. AND BEYOND**

Last year, the industry struggled with its nemesis aflatoxin. Improvements in processing, production, research and education efforts keep the industry ahead of it. Yet, will we ever be rid of it? This year's symposium experts give you an industry-wide appreciation of the issue and what's on the horizon.

*Economic Impacts and Overview of the Issue*

*Improved System Assessment of Aflatoxin Risk Utilizing Novel Data & Sensing Approaches at Points of Vulnerability*

*Dealing with Aspergillus in Peanut Seed--An Old Enemy Learns Some New Tricks*

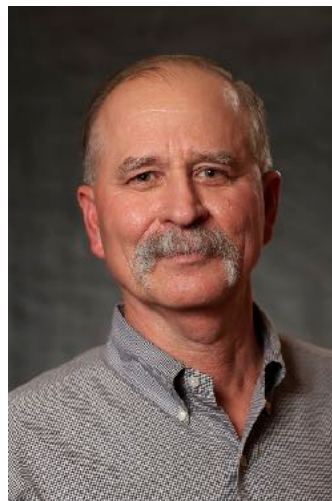
*Breeding for PreHarvest Aflatoxin Resistance*

*Advances in RNA Technology for the Control of Aflatoxin in Peanuts*

*Aflatoxin: An Industry Perspective*



Barry Tillman  
President  
APRES



Gary Schwarzlose  
2020 Program Chair  
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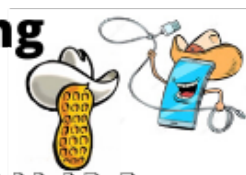


Johnny Cason  
Symposium Moderator  
APRES



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Time	Presentation Title	Speaker
	Welcome	Moderator: Johnny Cason Texas A&M University
1:00 PM CST 2:00 PM EST	Economic Impacts and Overview of the Issue	Dr. Marshall Lamb USDA/ARS
1:20 PM CST 2:20 PM EST	Improved System Assessment of Aflatoxin Risk Utilizing Novel Data and Sensing Approaches at Points of Vulnerability	Dr. Diane Rowland University of Florida
1:40 PM CST 2:40 PM EST	Dealing with Aspergillus in Peanut Seed – An Old Enemy Learns Some New Tricks	Dr. Timothy Brenneman University of Georgia
2:00 PM CST 3:00 PM EST	Breeding for Preharvest Aflatoxin Resistance	Dr. Coley Holbrook USDA/ARS
2:20 PM CST 3:20 PM EST	Advances in RNA Interference Technology for the Control of Aflatoxins in Peanut	Dr. Renée Arias USDA/ARS
2:40 PM CST 3:40 PM EST	Aflatoxin: An Industry Perspective	Dr. Darlene Cowart Birdsong Peanut Co.

# Aflatoxin: Impacts and Challenges for the U.S. and Beyond

APRES Symposium || July 14, 2020



**Marshall Lamb, USDA/ARS**

## Economic Impacts and Overview of the Issue

Marshall Lamb serves as Research Leader and Location Coordinator at the USDA/ARS National Peanut Research Laboratory and Lead Scientist on USDA-ARS research project titled “Enhancing the Competitiveness of US Peanuts and Peanut-based Cropping Systems.” He has authored or co-authored over 200 scientific publications and abstracts, 3 book chapters, and has given over 400 invited presentations at international, national, and regional professional and industry meetings and workshops and has written an estimated 200 popular press articles. Developed an expert system for farm management and marketing risk management (WholeFarm), co-developed an expert system for peanut irrigation (Irrigator Pro for Peanuts) and developed two other expert systems for corn (Irrigator Pro for Corn) and cotton irrigation (Irrigator Pro for Cotton). Marshall obtained B.S. and M.S. degrees from the University of Georgia and a Ph.D. from Auburn University.

**Diane Rowland, University of Florida**

## Improved System Assessment of Aflatoxin Risk Utilizing Novel Data and Sensing Approaches at Points of Vulnerability

Diane Rowland is Chair of the Agronomy Department and Professor of Crop Physiology in the Institute of Food and Agricultural Sciences at the University of Florida in Gainesville, FL. She also directs the Center for Stress Resilient Agriculture that focuses on transdisciplinary approaches to researching, extending, and teaching about the complexity of challenges to maintaining sustainable food production worldwide. Diane specializes in the physiological mechanisms of crop stress, particularly related to water deficit and its impact on root structure and function.

Diane pioneered the development of primed acclimation, a water management system that capitalizes on the nearly universal priming response in crop plants to enhance drought tolerance. The Agronomy Department is internationally recognized for the University of Florida's cross-departmental Agroecology graduate program focused on evaluating the sustainability and resilience of global agroecosystems.





**Tim Brenneman, University of Georgia**  
**Dealing with Aspergillus in Peanut Seed –  
An Old Enemy Learns Some New Tricks**

Dr. Brenneman received his B.S. in Biology from Goshen College (Goshen, Indiana) and his Ph. D. in Plant Pathology from Virginia Tech. He joined the faculty of the University of Georgia in 1986 and currently serves as professor of plant pathology with responsibilities for research and extension programming on peanuts and pecans, two of the major crops in Georgia. He also teaches Introductory Plant Pathology at the UGA Tifton campus, and has mentored numerous graduate students and post-docs. His research program has been broad, including discovery of pecan truffles in Georgia, but his main focus has always been on developing improved, more cost-efficient methods of disease control. He has published over 150 refereed journal articles. He is a Fellow and past-president of APRES, and a Fellow of the American Phytopathological Society.



**Corley Holbrook, USDA/ARS**  
**Breeding for Preharvest Aflatoxin Resistance**

Dr. Corley Holbrook is the Research Leader for the USDA-ARS Crop Genetics and Breeding Research Unit in Tifton, GA. He also has over 30 years of experience in peanut breeding and genetic research. Dr. Holbrook has published over 500 technical publications, and delivered numerous invited presentations at regional, national, and international conferences. He has served on the Board of Directors of the American Peanut Research and Education Society (APRES), and the Crop Science Society of American. He has also served as President of APRES. He developed 'Tifguard', the first peanut cultivar with resistance to both the peanut root-knot nematode and tomato spotted wilt virus. He recently released TifNV-High O/L which combines these resistances with the high oleic characteristic. Corley also served as a co-chair of the Research Steering Committee for the Peanut Genomic Initiative. He led the work to develop structured population and to phenotype these populations for economically important traits. This has resulted in the identification of numerous genetic markers that can be used to improve the efficiency and effectiveness of all U.S. Peanut Breeding Programs.





## **Renée Arias, USDA/ARS**

### **Advances in RNA Interference Technology for the Control of Aflatoxins in Peanut**

Dr. Renée Arias has been a member of the Graduate Faculty of Plant Pathology Department at UGA since June 2012, as well as a research pathologist at USDA-ARS-SAA since 2011. She received her B.S. in Agronomic Engineering from Universidad Nacional de Santiago del Estero, Argentina; her M.S. in Soil Microbiology from Universidad Nacional de Santiago del Estero, Argentina; and both her M.S. in Plant Pathology and Ph.D. in Plant Pathology from the University of Hawaii. She is currently engaged in eight international collaborations and has applied for two patents. Dr. Arias' professional service includes participating in the review panel for National Science Foundation and Small Business Innovative Research Grants, in addition to being a reviewer for over thirty scientific journals. Her awards and fellowships include the Presidential Early Career Scientist of the Year award for USDA (2014), the USDA-ARS Headquarters award (2013-2014), and the Early Career Scientist of



## **Darlene Cowart, Birdsong Peanuts**

### **Aflatoxin: An Industry Perspective**

Dr. Darlene Cowart is Corporate Director of Food Safety and Quality for Birdsong Peanuts headquartered in Suffolk, VA. Birdsong Peanuts operates shelling plants in all three major peanut producing regions in the U.S. Her primary responsibility at Birdsong is the implementation and management of the food safety and quality systems for all regions. Darlene has spent her entire professional career in the peanut industry focusing on food safety and quality at all levels of the business. She is currently serving as Chairman of APSA Safety and Sanitation Committee, Chairman of the Research Committee of the Peanut Institute, board member for the Peanut Research Foundation of the American Peanut Council, and as a board member of the Peanut Standards Board appointed by the U.S. Secretary of Agriculture. Darlene received a Bachelor's degree in Biology from Presbyterian College (1989), a Master's Degree in Horticulture from the University of Georgia (1991), and a Ph.D. in Food Science from the University of Georgia (1993).

*Thank you 2020 APRES Sustaining Members!*



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