

Lunch ~ N ~ Learn SEMINAR



**THE NATIONAL COALITION FOR  
FOOD & AGRICULTURAL RESEARCH**



**GIVE ME A BREAK!**

*USING FOREST WINDBREAKS  
TO REDUCE CROP GENE FLOW*



July 22, 2016

# **PROGRAM**

## ***Welcome and Introduction***

**ANDREA PUTMAN**  
NATIONAL C-FAR REPRESENTATIVE

## ***Distinguished Speakers***

**SUSAN STEIN**  
DIRECTOR, NATIONAL AGROFORESTRY CENTER  
U.S. FOREST SERVICE, USDA

&

**DR. CAROL AUER**  
PROFESSOR OF PLANT SCIENCE  
UNIVERSITY OF CONNECTICUT

## ***Open Forum***

## ***Closing***

**ANDREA PUTMAN**

NATIONAL C-FAR IS a nonprofit, nonpartisan, consensus-based and customer-led coalition that brings food, agriculture, nutrition, conservation and natural resource stakeholders together with the food and agriculture research and extension community, serving as a forum and a unified voice in support of sustaining and increasing public investment at the national level in food and agricultural research, extension, and education. For additional information, go to [www.ncfar.org](http://www.ncfar.org); or contact Tom Van Arsdall, Executive Director, at [tom@vanarsdall.com](mailto:tom@vanarsdall.com).

## ABSTRACT

Crop gene flow is the movement of genes from one plant population to another. This natural process was not much of an issue until genetically engineered (GE) crops were adopted in the U.S. and transgene flow led to challenges for crop exports, seed purity, and biocontainment. Today, markets and consumers are looking for coexistence between conventional, GE, and organic crops and food systems. Meeting these demands can be accomplished, in part, through research and policies supporting adaptable tools that can mitigate gene flow for a wide variety of crops. The lab group of Dr. Carol Auer has been studying crop gene flow in turfgrass species and biofuels crops. They recently demonstrated the ability of narrow forest windbreak to greatly decrease switchgrass pollen dispersal in an agricultural landscape. Experiments showed that the forest windbreak decreased downwind pollen concentrations by as much as 20,000 fold compared to a control field which showed about a 77 fold decrease due to distance alone. Thus, windbreaks might be able to block pollen drift or reduce adventitious presence below accepted thresholds. This presentation will include an introduction to crop gene flow and coexistence, a review of agroforestry and its benefits, a description of current research results, and a discussion of future directions. Research support was obtained from Biotechnology Risk Assessment Grant awards from the U.S. Department of Agriculture, National Institute of Food and Agriculture.

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## SPEAKER BIOGRAPHY

**Carol Auer, Ph.D.**, is Professor Emerita of Plant Science at the University of Connecticut where she continues her research on ecological risk assessment for crops with novel traits. She has published on the topics of ecological risk assessment, crop gene flow, pollen aerobiology, and plant population genetics. Recent work has focused on new methods to mitigate gene flow, and understanding gene flow in the oilseed crop camelina. Dr. Auer has studied biotechnology policy in the U.S. and other countries. She was a Fulbright Fellow in Science and Technology (2012-2013) in Ecuador where she worked on education and capacity development projects. In 2002-2003, she received an American Association for the Advancement of Science (AAAS) Risk Policy Fellowship for policy research at the U.S. Department of Agriculture in Washington DC.



## **SEMINAR SERIES DESCRIPTION**

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