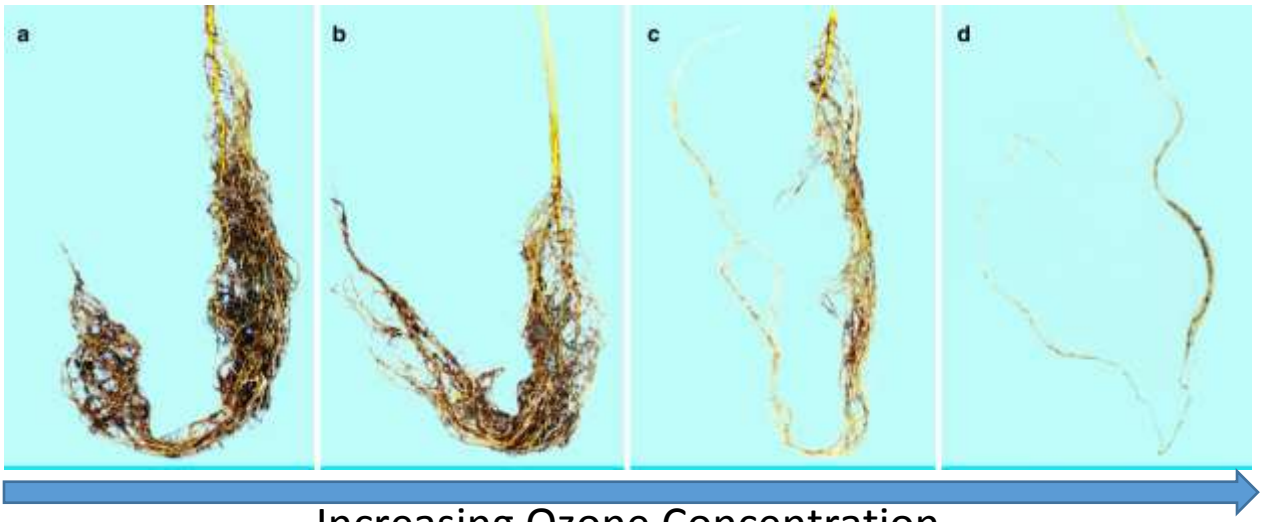
California State University, Fresno, Department of Biology presents

"Air Pollution Impacts on Plant Water Relations"



Increasing Ozone Concentration

Many regions of the world are subject to air pollution in the form of gases and particles. These are harmful to humans and plants. Drought stress in agricultural and wildland vegetation is changing, from a supply deficit to a demand surplus, as global temperature rises. Ozone is the most damaging gaseous air pollutant to vegetation, reducing carbon allocation to roots, steady state stomatal conductance, and rates of stomatal response. Many aerosol species are hygroscopic, leading to persistent leaf surface moisture that corrodes the cuticle, increases ozone deposition, and penetrates the stomatal pore. All of these effects may increase water loss and reduce drought hardiness. These impacts of air pollutants are beginning to be incorporated into models of regional hydrology. The accuracy of such modeling remains limited by incomplete understanding of stomatal mechanisms and impacts of air pollutants. This presentation will provide an opportunity to discuss these issues.

David A. Grantz, PhD

University of California at Riverside, Kearney Agricultural Center, Parlier, CA

Friday, September 8, 2017

3:00 – 4:00 PM

Science 2, room 109

For further information: www.csufresno.edu/biology

Bio: Dr. Grantz earned a B.A. in politics from UC Santa Cruz and subsequently an M.S. in Botany from UC Riverside and Ph.D. in Plant Physiology from the University of Illinois at Urbana. He has served as a visiting professor in Europe, the Middle East and Mexico and is active in public service as a member of several groups focusing on air pollution control (US EPA, US Global Change Program and the San Joaquin Air Pollution Control District). Dr. Grantz has joined the Kearney Agricultural Center in 1990 as a Plant Physiologist and served as the Center's director between 1999 and 2010.

If you need a disability-related accommodation or wheelchair access, please contact Lindasue Garner at the Department of Biology at 278-2001 or e-mail lgarner@csufresno.edu (at least one week prior to event).