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SCHOOL OF AGRICULTURE
AND APPLIED SCIENCES

Center for Conservation Research

(Formerly: USDA/NRCS Conservation Research Project. Established in 1989

(The largest C-factor databank on horticultural crops in the world)

Department of Agriculture, School of Agriculture and Applied Sciences, Alcorn State University, Alcorn State, MS 39096

Objectives: The objectives of the center are to conduct (1) C-factor (cover and management) research on horticultural crops for erosion prediction, nutrient management, and conservation planning, and to prevent soil erosion and climate change, (2) conservation research on organic and no-till production, fruit and water quality, and residue management; and (3) outreach programs.

Achievements: *It is the largest C-factor (cover and management) databank on horticultural crops in the world with more than 130,000 readings on 38 crops. The information collected is used around the globe for erosion prediction models, including USLE, RUSLE, WEPP, and WEPS, and nutrient management and conservation planning. * The entire data has been submitted to the USDA's National Soil Erosion Research lab (NSERL), Purdue University, Indiana, and USDA's National Plant Data Center (NPDC), Baton Rouge, LA. *Alcorn applies C-factor research program for thesis work and these students find employment before commencement. *The center received more than \$3 million from USDA/NRCS, more than \$2.5 million from other federal agencies, and more than \$1 million from Alcorn State University totaling over \$6.5 million so far. *More than 100 papers, including abstracts, leaflets, pamphlets, and bulletins, and journal article have been published, and presented more than 100 papers at regional, national, and international level. *More than 30 Technical Notes have been developed for farmers in collaboration with USDA/NRCS. *Including graduates and undergraduates, more than 60 students have been trained so far and most of them have been hired by USDA/NRCS. *Invited by the International Society for Horticultural Science, Belgium, American Society for Horticultural Science, International Society for Extension Education, and Indian Council of Agricultural Research, India, the Center represented the U.S. several times to deliver lectures on conservation research in Toronto, Canada, Seoul, South Korea, New Delhi, India, and Brisbane, Australia. *Invited by the USDA/NRCS, the center has conducted workshops on C-factor research for 1890 and 1994 land grant universities. *The Center developed the first technology transfer bulletin on C-factor research in collaboration with the USDA and copies have been sent to all libraries of 1862, 1890, and 1994 land grant universities, other non-land grant universities offering agricultural science, and all state conservationists in 50 states. This technology is being used around the globe. *At present, the USDA/ARS north central region is utilizing the C-factor data for multivariate analysis and publication in international journals. *First time in the history of blueberry research, the center has developed organic farming techniques to raise blueberries on heavy soils and increase Vitamin C and anthocyanin content. * Center has developed a slow-release and environmentally friendly organic manure in collaboration with the U.S. Army which will never pollute the groundwater. *The center's presentations on conservation research are being podcasted globally by the American Society for Horticultural Science, International Society for Horticultural Science, eExtension, eOrganic, and USDA.

Links to the global podcasts: <http://ashs.org/db/hortalks/detail.lasso?id=703>

<http://www.extension.org/pages/33545/usda-2011-organic-farming-systems-conference-webinars>

<http://www.extension.org/pages/64359/2nd-international-organic-fruit-research-symposium> Or go to: www.YouTube.com, type

Girish K. Panicker, and click <https://ashs.confex.com/ashs/2015/vidogateway.cgi/id/2253?recordingid=2253>

<https://ashs.confex.com/ashs/2015/webprogram/Paper22433.html>

Collaborators: USDA/NRCS; USDA/ARS; land grant universities; U.S. Army; India, Russia, Cuba, and Israel

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