CARBON SEQUESTRATION IN CENTRAL ASIA
- WORKSHOP -

ABSTRACTS

UNIVERSITY PLAZA HOTEL AND CONFERENCE CENTER

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Conservation Agriculture: Environmental Benefits of Reduced Tillage and Soil Carbon Management in Water Limited Areas of Central Asia.

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Agricultural carbon (C) sequestration may be one of the most cost effective ways to slow processes of global warming and enhance plant available water. Numerous environmental benefits and enhanced water use efficiency result from agricultural activities that sequester soil C and contribute to crop production and environmental security. Increased surface residues and soil C increases infiltration, decreases runoff, increases water-holding capacity, and decreases evaporation. As part of no-regret strategies, practices that sequester soil C also help reduce soil erosion and improve water quality and are consistent with more sustainable and less chemically dependent agriculture. While we learn more about soil C storage and its central role in direct environmental benefits, we must understand the secondary environmental benefits and what they mean to production agriculture. Increasing soil C storage can increase fertility and nutrient cycling, decrease wind and water erosion, minimize compaction, enhance water quality, decrease C emissions, impede pesticide movement and generally enhance environmental quality. The sum of each individual benefit adds to a total package with major significance on a regional scale. Incorporating C storage in conservation planning in areas of limited water resources demonstrates concern for our global resources and presents a positive role for soil C that will have a major impact on our future quality of life.