

SUSTAINABLE RANGELAND MANAGEMENT

Dr. Richard Teague
Professor

Grazing Ecology and Management



Microbe DNA and $^{13}\text{C}_2$ Isotope Sampling



Greenhouse gas Sampling

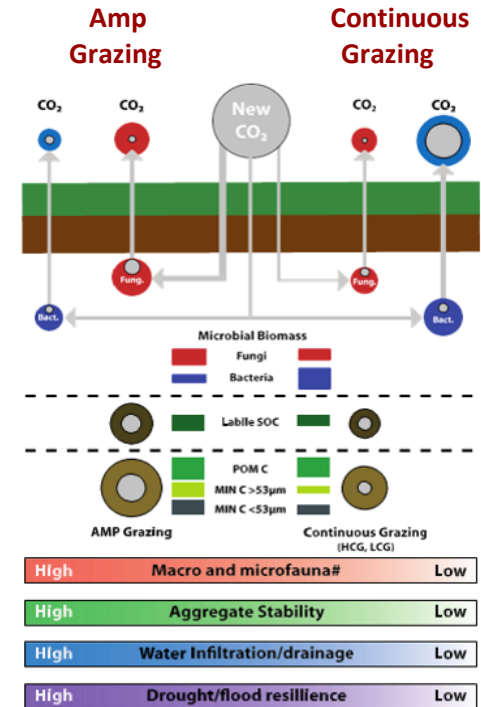
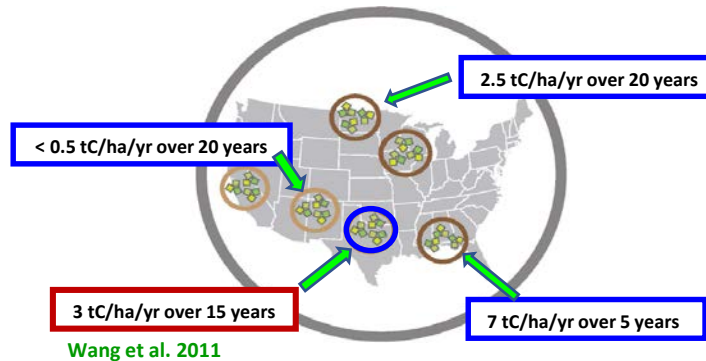


Paired AMP, HCG, and LCG Soil Sampling



Published & Reconnaissance Sampling

AMP had higher C gain/year than continuous grazing neighbors

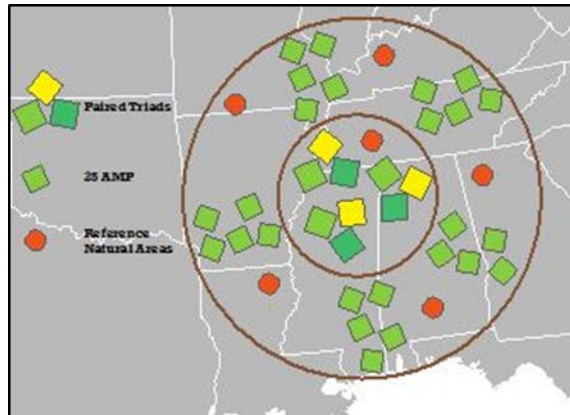


Dr. Teague's project includes ranch-style, multi-county assessments that address three related objectives in the context of regenerating soil health and ecosystem function in North American grazing ecosystems:

1. Determine the extent that grazing strategies influence key ecosystem services (especially soil and vegetation carbon sequestration), soil fertility and stability, water quality, net primary and secondary production, and economic viability of working ranches that contribute to the retention of open space and rural community health in the South Plains.
2. Determine the extent that different grazing management strategies can be used by livestock producers to restore soil health, ecosystem function mitigate and adapt to alternative climate change scenarios.



Regional locations of landscape-scale farms with natural reference areas



Total number of landscape-scale farms in each region including reference natural areas

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