Although 60 years of studies comparing grazing systems show no difference in biomass and animal production, the value of human management is excluded from those studies, said a rangeland research specialist.

The rigors of scientific study require strict controls on the study environment, said Justin Derner, research rangeland management specialist for the USDA Agricultural Research Service.

Replicated studies with controls eliminate all possible variables, including differences in management. They're also conducted on smaller acreages than most producers would manage.

The manager's judgment calls, as well as her or his goals and values are taken out of the equation, Derner said. Emerging concerns about sustainability are also largely ignored.

Derner believes that a grazing system succeeds or fails because of good or bad management.

"You can set up the best system in the world with a poor manager and it will fail," he said. "But a poor system with a great manager will succeed."

Derner argues that researchers must learn to "take that static component out of the system" and allow it to be dynamic. But they must do it in a scientific manner.

Several studies in China, Mongolia, Africa and parts of South America look at the traditional manager, usually in a pastoral system, Derner said. U.S. studies currently in progress bring grazing research together with social science and human dimension ecology to scientifically evaluate the human vs. environmental vs. management factors.

For more studies on grazing, go to the Society for Range Management Webpage at http://www.srm.org and the ARS High Plans Grasslands Research Station at

www.rrru.ars.usda.gov.

“There are exciting opportunities for land managers and researchers to address outcome-based rather than practice-based approaches that blend production and conservation goals for rangelands,” Derner said.