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Nov. 18, 2016
By NCTA News Service

Healthy soil aids grass and animal vigor

Curtis, Neb., - Dung beetles, earthworms and pollinators are the good guys when it comes to the health of soil and grassland resources.

Allen Williams, resources consultant, made a five-hour stop at Curtis on Nov. 14 meeting with agriculture students, professors, and grazing lands and livestock managers at the Nebraska College of Technical Agriculture.

Williams shared his insights with an audience of 81 attendees during the evening program entitled, "Dirt Rich or Dirt Poor: Principles of Soil Health, Adaptive Grazing and Cover Crop Livestock Integration."

Aggie students enrolled in livestock management, production and range management courses at NCTA were assigned to attend and report on their findings to NCTA animal science professors Teri Jo Bek and Doug Smith, Ph.D.

Timely rains and soil moisture are critical to proper vegetative growth. Indicators of soil health below that vegetation can include presence of earthworms and dung beetles. For example, while livestock graze on pastures and grasslands, the action of their feet help to incorporate nutrients into the soil below, and dung beetles aid in the decomposition of animal waste and burrowing the nutrients down into the soil profile.

"There are more than 70 types of dung beetles," Williams noted. "Those holes you see in a cow patty are dung beetles at work, taking the dung into the soil."

Williams encouraged producers to use soil testing methods to measure soil health and plan fertility programs for improving their soil conditions. Proper management of livestock and the grassland or crop resources improves soil tilth, thus enhancing plant vitality and reducing soil erosion by wind, lack of moisture, and overgrazing.

He cited examples of poor resource management, and how to improve conditions. As a land manager, consultant and business owner, Williams has been able to increase agricultural profitability through adaptive or intensive grazing by putting more livestock into smaller paddocks and grazing for very short periods of time, or increasing pressure to reduce or eliminate specific invasive species or weeds such as cedar trees.

Williams cited numerous case studies of soil and resource improvement with better management for manure distribution, optimal grass varieties to match soil temperatures and climate, and incorporating cover crops into existing rotations and grasslands management. Williams is a founding partner and president of GFI, LLC, and has consulted for more than 4,000 farmers and ranchers in the United States, Canada and Mexico. He holds animal science degrees from Clemson University and Louisiana State University.

The program was sponsored by Nebraska Extension with the Nebraska Grazing Lands Coalition and NCTA.

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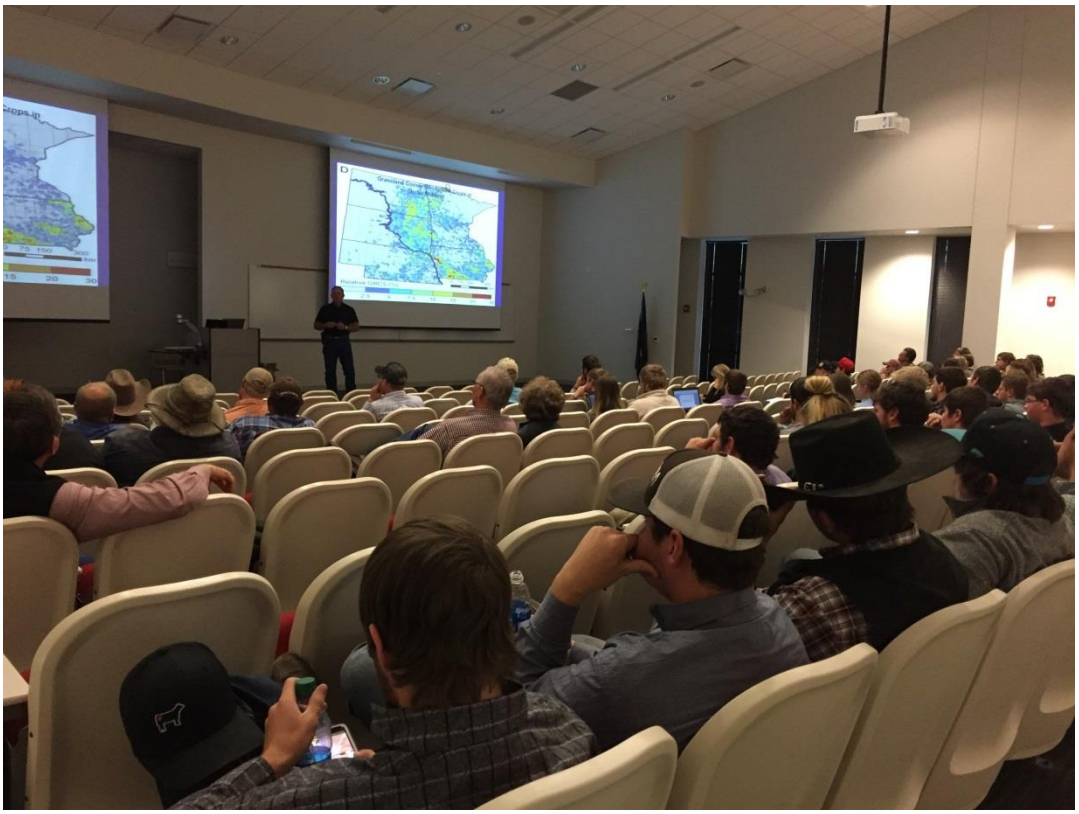
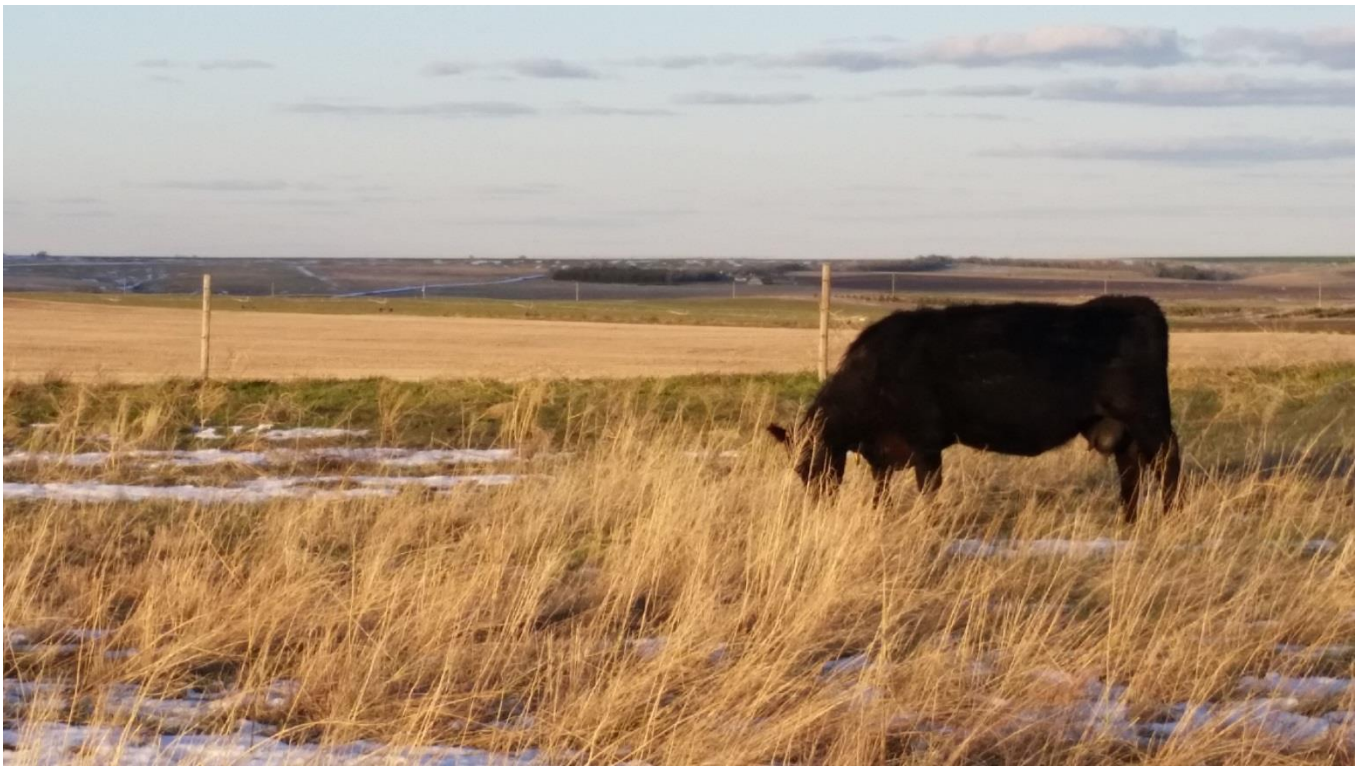
NCTA.Graze.Soils.11.18.16

Online link: http://go.unl.edu/4kxh



Allen Williams spoke about grazing and land resource management at the Nebraska College of Technical Agriculture. (K. Burr photo)



Grazing management for beef cattle includes moisture and vegetation. Allen Williams discussed beef production and enterprise profitability on November 14 during the Nebraska Extension and Nebraska Grazing Lands Coalition forum at the NCTA Education Center in Curtis. (Crawford/NCTA News photo)