Browsing The Literature

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This section reviews new publications available about the art and science of rangeland management. Personal copies of these publications can be obtained by contacting the respective publisher or senior author (address shown in parentheses). Suggestions are welcomed and encouraged for items to include in the future issues of *Rangelands*.

Animal Ecology

Effect of prolonged backgrounding on growth performance and carcass composition of crossbred beef steers. A.S. Vaage, D.H. McCartney, J.J. McKinnon, and R.D. Bergen. 1998. Canadian Journal of Animal Science 78:359–367. (D.H. McCartney, Agr. & Agri. Food Canada, 6000 C&E Trail, Lacombe, AB T4L 1W1, Canada). Prolonged backgrounding with forages produced larger carcasses without adversely affecting carcass composition.

Evaluation of physical and behavioral traits of llamas associated with aggressiveness toward sheep-threatening canids. S.M.C. Cavalcanti and F.F. Knowlton. 1998. Applied Animal Behaviour Science 61:143–158. (3926 Feramorz Dr., Salt Lake City, UT 84124). Recommends which traits to look for when selecting a llama for use as a livestock guardian.

The response of beef cattle to noise during handling. D.F. Waynert, J.M. Stookey, K.S. Schwartzkopf Genswein, J.M. Watts, and C.S. Waltz. 1999. Applied Animal Behaviour Science 62:27–42. (J.M. Stookey, Univ. of Sask., 52 Campus Dr., Saskatoon, SK S7N 5B4, Canada). Eliminating or reducing the sounds of metal clanging and human shouting will reduce the level of fear cattle experience during handling.

Grazing Management

Effects of summer sheep grazing on browse nutritive quality in autumn and winter. M.J. Alpe, J.L. Kingery, and J.C. Mosley. 1999. Journal of Wildlife Management 63:346–354. (J.L. Kingery, Dept. of Range Resources, Univ. of Idaho, Moscow, ID 83844-1135). Presents sheep grazing prescriptions for improving nutritive quality of wildlife browse.

Influence of pasture condition on plant selection patterns by cattle: Its implications for vegetation change in a monsoon tallgrass rangeland. A.J. Ash and J.P. Corfield. 1998. Tropical Grasslands 32:178–187. (CSIRO, PMB, Aitkenvale, Qld. 4814, Australia). In northern Australia, increases and decreases in cattle grazing intensity did not decrease utilization of the preferred bunchgrass species.

Toxic plant handbook: Integrated management strategies for West Texas. C.R. Hart, A. McGinty, and B.B. Carpenter. 1998. Texas Agr. Extension Service Bull. B-6072. ($14.95; Publications, Texas Agr. Extension Service, Texas A&M Univ., College Station, TX 77843). This 124-page handbook with color photos describes the ecology, toxic agent, livestock symptoms, and management of 52 poisonous plant species in western Texas.

Hydrology

Runoff and sediment yield from snowmelt and rainfall as influenced by forage type and grazing intensity. S.I. Gill, M.A. Naeth, D.S. Chanasyk, and V.S. Baron. 1998. Canadian Journal of Soil Science 78:699–706. (Alberta Agr., Edmonton, AB T6H 5T6, Canada). Heavy grazing did not increase runoff or sediment yield from pastures seeded to smooth bromegrass or meadow bromegrass.

Plant/Animal Interactions

Effects of cattle grazing on salt desert rodent communities. A.L. Jones and W.S. Longland. 1999. American Midland Naturalist 141:1–11. (Wild Utah Project, 165 S. Main, Salt Lake City, UT 84111). Cattle grazing created habitat conditions that favored some species of rodents while disfavoring other species.

Feed intake and digestion in the summer and fall by different breeds of ewes consuming forages differing in quality. A.L. Goetsch and Z.B. Johnson. 1999. Small Ruminant Research 31:109-116. (USDA-ARS, Small Farms Research Center, Booneville, AR 72927). Forage intake differed among breeds of sheep when sheep grazed tall fescue (high quality forage), but intake did not differ among breeds when sheep grazed mature bermudagrass (low quality forage).

Grazing and browsing times of goats with three levels of herbage allowance. A. Orihuela and J.J. Solano. 1999. Applied Animal Behaviour Science 61:335-339. (Educ. Tecnol. Agropecuaria, Coordinac Morelos, Apartado Postal 5-78, Cuernavaca 62051, Morelos, Mexico). As grass height increased, goats spent more time grazing and less time browsing.

Land-use patterns surrounding greater prairie-chicken leks in northwestern Minnesota. M.D. Merill, K.A. Chapman, K.A. Poiani, and B. Winter. 1999. Journal of Wildlife Management 63:189-198. (Nature Conservancy, 201 Devonshire St., 5th Floor, Boston, MA 02110). Conservation Reserve Program (CRP) seedings around traditional leks improved habitat for greater prairie chickens.

Sagebrush and ungulate relationships on Yellowstone's northern range. C.L. Wambolt. 1998. Wildlife Society Bulletin 26:429-437. (Dept. of Animal & Range Sciences, Montana State Univ., Bozeman, MT 59717). Elk browsing has dramatically reduced sagebrush on the Northern Yellowstone Winter Range.

Songbird community composition and nesting success in grazed and ungrazed pinyon-juniper woodlands. C.B. Goguen and N.E. Mathews. 1998. Journal of Wildlife Management 62:474–484. (Dept. of Range, Wildlife & Fisheries Management, Texas Tech Univ., Lubbock, TX 78409). Habitat features and nesting success did not differ between areas grazed moderately by cattle and areas excluded from cattle grazing for 20 years.

The effect of introducing timothy, cocksfoot and red fescue into a perennial ryegrass sward and the application of sodium fertilizer on the behaviour of male and female cattle. C.J.C. Phillips, M.Y.I. Youssef, and P.C. Chiy. 1999. Applied Animal Behaviour Science 61:215–226. (Univ. of Cambridge, Madingley Road, Cambridge CB3 0ES, England). Sodium content of forage affected forage palatability.

Plant Ecology

Differential water resource use by herbaceous and woody plant life-forms in a shortgrass steppe community. M.B. Dodd, W.K. Lauenroth, and J.M. Welker. 1998. Oecologia 117:504–512. (Dept. of Rangeland Ecosystem Sci., Colo. State Univ., Fort Collins, CO 80523). Grasses, shrubs, and trees extracted water from different soil layers.

Does selective defoliation mediate competitive interactions in a semiarid savanna? A demographic evaluation. D.D. Briske and J.R. Hendrickson. 1998. Journal of Vegetation Science 9:611-622. (Dept. of Rangeland Ecology & Management, Texas A&M Univ., College Station, TX 77843). Defoliation of individual and neighboring sideoats grama plants did not affect tiller recruitment or mortality.

Importance of arbuscular mycorrhizae to drymass production of a native Texas C-3 and C-4 grass. O.W. Van Auken and S.C. Brown. 1998. Texas Journal of Science 50:291-304. (Division of Life Sciences, UTSA, San Antonio, TX 78249). Mycorrhizal infection increased yield of Texas wintergrass and red threeawn.

Landscape characteristics of disturbed shrub steppe habitats in southwestern Idaho. S.T. Knick and J.T. Rotenberry. 1997. Landscape Ecology 12:287–297. (U.S. Geological Survey, 970 Lusk St., Boise, ID 83706). Describes the conversion of sagebrush grasslands to a new steady state dominated by cheatgrass and frequent fires.

Reclamation

Relative grazing preference, herbage yield, *in vitro* digestibility, and other comparisons among seven perennial grasses at various times of the year in southcentral Alaska. L.J. Klebesadel. 1999. Univ. of Alaska Agr. & Forestry Exp. Sta. Bull. 107. (Publications Room, Agr. & Forestry Exp. Sta., Univ. of Alaska, Fairbanks, AK 99701). Polar bromegrass was the grass most preferred by grazing dairy cows.

Soils

Denitrification in a semi-arid grazing ecosystem. D.A. Frank and P.M. Groffman. 1998. Oecologia 117:564-569. (Biological Research Labs, Syracuse Univ., Syracuse, NY 13244). Ungulate grazing enhanced denitrification at mesic sites in Yellowstone National Park.

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