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VITAE

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Born: 1940

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Academic training:

<u>Degree</u>	<u>Year</u>	<u>Institution</u>	<u>Major</u>
B.S.	1962	Utah State University	Range management
M.S.	1966	University of Nebraska	Agronomy (Range management)
Ph.D.	1969	University of Nebraska	Animal Science (The Nutrition Area)

SUMMARY EXPERIENCE

I offer University courses and training on-line. These courses specifically relate to the management of Natural Resources and Animals. We now make it possible to obtain a graduate degree without coming to campus. We offer both a MS and Ph D Plan. I currently advise all Students in the MS and Ph D students in the Rangeland Ecosystem Science Degree-Distance Option. I advise about 65 students. I offer 4 on-line courses in Rangeland Management and Range Herbivore Ecology and Behavior, spring and fall semesters.

I have over 45 years experience in research, teaching, consultation and management of rangelands and range livestock for multiple uses and values. I have worked in tropical (Hawaii) to cool temperate (Iceland) ecosystems. Much of my international experience is in Africa. My areas of expertise are forage-based livestock systems, crop-animal systems, nutrition and behavior of free-grazing animals, and grassland and shrubland ecology.

International activities have centered around the utilization of forage resources by ruminant animals, including cattle, sheep and goats. In Iceland and The Peoples Republic of China I consulted with governments on sustainability of rangeland use while pursuing a national agenda for food production. In Morocco I was involved with an Institution Building project. Our task was faculty

training. While supported by the Fulbright-Hayes Award, I developed research projects with individuals in the Department of Animal Production at the Institut Agronomique et Veterinaire Hassan II. Projects include determination of the nutritive value of forages and ingestive behavior of free-grazing sheep, the effect of supplementation on animal production and range sparing, and interactions of herders and sheep production. In Zimbabwe, I developed a new course and teaching syllabus on Range-Animal Production to be offered to third-year Animal Science and Veterinary Science Students. This course took into consideration production from both domesticated animals and wildlife. The East Anatolio Turkey Watershed Training Course involved planning, hosting and preparation and presentation of training materials.

I just returned from a USTDA project in China/Inner Mongolia where I advised on livestock production and rangeland ecology. This project emphasized concentration of agriculture to relieve grazing pressure on the grasslands and reduce blowing dust.

Nearly 10 years were spent at State Experiment Stations in Nebraska, Oregon and Texas studying ways to improve the year-long nutritional status of range animals. Studies were designed to investigate the impact of grazing management on plants and animals. I have considerable experience in vegetation management and improvement. I have been actively involved in Research and Teaching at Colorado State University since 1978. We continue to study the nutritional value of forages and ingestive behavior of cattle, sheep, goats and horses. Numerous studies investigated the effect of disturbance on bio- and patch diversity and how temporal and spatial nutrient distribution impacts food gathering. Current research investigates the relationship between grazing practices and threatened and endangered species of plants and animals.

I have served on several committees scoping the utility of Ecosystem Management and new applications of Ecosystem Science. I organized a symposium on Ecosystem Management in November 1993 that attracted about 300 registrants. We published a proceedings in 1995.

I am very much interested in pedagogy/androgogy and the effectiveness of teaching as it relates to learning. I have organized faculty workshops on pedagogy/androgogy and learning. I use many methodologies in the classroom to help students develop the process of open-ended problem solving. Go to <http://warnercnr.colostate.edu/~larryr/> and click on Teaching Model.

Recent effort has focused on the Integrated Resource Management program. I participated in development of the undergraduate, IRM - Interdisciplinary Studies Program at CSU (responsible for the sophomore course) and the IRM Graduate Program. I was team leader on the Grazing Management Module and core team participant on the Animal Biology and Nutrition Module.

Professional Experience:

<u>Date</u>	<u>Position</u>	<u>Institution</u>
Aug. 1969 June 1974	Assistant Professor	Oregon State University, Eastern Oregon Agricultural Research Center, Burns, OR
July 1974 Dec. 1974	Associate Professor	Oregon State University, Eastern Oregon Agricultural Research Center, Burns, OR

Jan. 1975	Associate Professor	Texas A & M Research and Extension Center, Vernon, TX
June 1978	Associate Professor	Department of Range Science,
June 1982		Colorado State University
July 1982	Professor	Department of Rangeland Ecosystem Science,
August 2003		Colorado State University
August 2003	Professor	Department of Forest, Rangeland and Watershed
May 2006		Stewardship
Transitional		
Appointment		Colorado State University
May 2006 to	Professor	Department of Forest, Rangeland, and Watershed
June 2010	Emeritus	Stewardship
July 2010 to	Professor	Department of Forest and Rangeland Stewardship
Present	Emeritus	

Professional Research Experience:

September 1969 to March 1974 and June 1974 to Dec. 1974, Burns, OR	<u>Range improvement and Range Animal Nutrition.</u> My duties at the Squaw Butte Station (Eastern Oregon Agricultural Research Center) were to develop and direct research in rangeland improvement and range animal nutrition. Work was closely coordinated with the USDA, ARS cooperative program. Supervisor of Nutrition and Chemistry laboratory.
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January 1975 to June 1978 Vernon, Texas	<u>Range Animal Nutrition and Grazing Management</u> I was responsible for project leadership in range animal nutrition and grazing systems at the Texas Experimental Ranch and Livestock farming systems at The Spur Station. Supervisor of the Nutrition Laboratory.
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June 1978 to present Ft. Collins, CO	<u>Range Animal Nutrition and Grazing Management</u> Project leader in areas such as grazing management, grazing systems, animal behavior, nutrition of free- grazing animals, and range ecology.
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Teaching experience:

March 1974 to June 1974 Corvallis, OR	Principles of Range Management (UG), Rangeland Planning (UG).
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September 1978	Principles of Range Management (UG), Introduction to
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to May 2006
Ft. Collins, CO

Ecosystems (UG), Range Improvements (UG), Range Undergraduate Seminar (UG), Range Animal-Habitat Interactions (UG), Rangeland Herbivore Ecology (UG), Rangeland Planning and Grazing Management (UG), Rangeland Ecosystem Planning (UG), Range Livestock Production and Management (G), and Ecosystem Structure and Function-Consumers (G), Integrated Resource Management-system definition (UG). IRM Grazing Management (G), IRM Managing the Animal Resource

1998 –present

On-line course delivery. Advising MS and Ph D students distance option.

Professional activities:

Memberships

Society for Range Management
American Society of Animal Science
American Registry of Professional Animal Scientists
Certified Professional in Range Management

Honorary Organizations

Phi Kappa Phi
Gamma Sigma Delta and Alpha Zeta

International activities:

Faculty development. USAID Morocco. Site visit. 10 days. 1982.

Technical exchange. OICD. Peoples Republic of China. 30 days. 1982. Consultant. Agricultural Institute and Ministry of Agriculture. Iceland. 10 days. 1984.

Faculty development. USAID Morocco. Site visit. 30 days. 1985.

Workshop and Consultant. Agricultural Institute and Ministry of Agriculture. Iceland. 10 days. 1985.

Faculty development. USAID Morocco. Site visit. 45 days. 1986.

Faculty development. USAID Morocco. Site visit. 15 days. 1986.

Research/Lectureship. Fulbright Fellow Award. Morocco. October 1986-October 1987. Consultant to Animal Science Department. University of Zimbabwe. USAID Zimbabwe. August 1987-October 1987.

Site review of forages programs USAID MIAC project, Settati, Morocco May 8 to May 20, 1989. Consultant. Institut Agronomique et Veterinaire Hassan II, Rabat. May 21 to May 26, 1989.

Farmer to Farmer. Kyrgyzstan and Kazakhstan. Volunteer consultant to USAID. Program administered by Winrock International. August 5 to September 4, 1993.

East Anatolio Watershed Training Project (EAWT), Turkey. CID/World Bank. Jan 1995 to present

EAWT training tour in Morocco (World Bank). May 1996. 23 days.

EAWT training tour in France (World Bank). September 1996. 26 days.

EAWT individual training, Range Management and collaborative decision-making, January to March 1997. World Bank.

USAID-CRSP workshop. Nairobi, Kenya. Developing a decision support system for integrated assessment of pastoral wildlife interactions in East Africa. May 16 to May 31, 1997.

Seminar at Sokoine University of Agriculture at Morogoro, Tanzania. May 1997. ICARD (Syria) individual training, Range Management, plant materials and collaborative decision-making, June to August 1997.

EAWT training tour in livestock and forage systems and agriculture on steep lands in eastern Oregon. September 1997. World Bank.

Xuan Mai Forestry College. Member of a team to develop a curriculum in Environment and Conservation Management. June 1998.

USAID-CRSP. Consultation and research development in the Ngorongoro Conservation Area. July 1998.

Vth International Herbivore Symposium, San Antonio, TX. Served as Evocateur for the session on Sustatinability of herbivore Systems. Published response CDROM. The Nutritional Ecology of Herbivores. American Society of Animal Science. April 1999

Pre-Congress Workshop with Roy Roath in Townsville, AU. VIth International Rangeland Congress. Landcare and Extension Processes. July 1999.

International Conference on Grasslands and Industry. 2001. People=s Republic of China. Hailar. Presentation on sustainable systems.

USTDA - Cascade Earth Sciences. Inception report and feasibility study to intensify agriculture using irrigation in Inner Mongolia. January 2003.

USTDA - Cascade Earth Sciences. Implementation and monitoring training to intensify agriculture using irrigation in Inner Mongolia. May 2004.

Languages:

Reading/Translation knowledge of French at about the 2.0 on a 1 to 5 scale; Speaking skill is about 1 on a 1 to 5 scale; conversation skill nil

Special Awards, Licenses, etc.

Fulbright-Hayes Award, October 1986 to July 1987 in Morocco.

Outstanding Teacher, Range Science Department - 1991
Outstanding Achievement Award, Society for Range Management - 1993
Guided Design - a teaching methodology - 1984
Institute for College and University Administration - 1992
Trail Boss Award, CO Section, Society for Range Management - 1995
American Registry of Professional Animal Scientists
Certified Professional in Range Management

Publications:

- Streeter, C.L., D.F. Burzlaff, D.C. Clanton and L.R. Rittenhouse. 1966. Effect of stage of maturity, method of storage and storage time on nutritive value of sandhills upland hay. *J. Range Manage.* 19:55-59.
- Burzlaff, D.F., G.W. Fick and L.R. Rittenhouse. 1968. Effect of nitrogen on certain factors of a western Nebraska ecosystem. *J. Range Manage.* 21:297-301.
- Rittenhouse, L.R. and D.F. Burzlaff. 1968. Seasonal and livestock influences in estimating foliage density of vegetation. *J. Range Manage.* 21:21-24.
- Clanton, D.C. and L.R. Rittenhouse. 1969. Protein-energy relationships in range supplements. Paper G-1. In. National Conference on forage quality evaluation and utilization. Lincoln, Nebraska.
- Obioha, ??, D.C. Clanton, L.R. Rittenhouse, and C.L. Streeter. 1970.
- Rittenhouse, L.R., D.C. Clanton and C.L. Streeter. 1970. Intake and digestibility of winter-range forage by cattle with and without supplements. *J. Anim. Sci.* 31:1215-1221.
- Rittenhouse, L.R., C.L. Streeter and D.C. Clanton. 1971. Estimating digestible energy from digestible dry and organic matter in diets of grazing cattle. *J. Range Manage.* 24:73-75.
- J. K. Ward, T. J. Klopfenstein, R. K. Christenson, Walter Woods and L.R. Rittenhouse. 1971. Monozygotic Bovine Twin Efficiency Values. *J Anim Sci.* 32:1262-1267.
- Handl, W.P. and L.R. Rittenhouse. 1972. Herbage yield and intake of grazing steers. *Proc. West. Sec. Am. Soc. Anim. Sci.* 23:197-200.
- Nelson, A.G. and L.R. Rittenhouse. 1972. Estimation of a performance function for evaluating range improvement investments. *West. Agric. Econ. Assoc.* 45:61-65.
- Rittenhouse, L.R. and F.A. Sneva. 1973. The influence of selected climatological parameters on water intake of cattle. *Proc. Water-Animal Relations Symposium, Kimberly, ID.* pp.55-62.
- Sneva, F.A., L.R. Rittenhouse and L. Foster. 1973. Stockwater restriction and trailing effects on animal gain, water drunk and mineral consumption. *Proc. Water-Animal Relations Symposium, Kimberly, ID.* pp.34-48.
- Rittenhouse, L.R. and F.A. Sneva. 1973. The influence of selected climatological parameters on water intake of cattle. *Proc. West. Sec. Am. Soc. Anim. Sci.* 45:61-65.

- Handl, W.P. and L.R. Rittenhouse. 1975. A comparison of three methods of estimating digestibility for determining intake of grazing cattle. *J. Range Manage.* 28:414-416.
- Sneva, F.A., L.R. Rittenhouse and V.E. Hunter. 1975. Summer grazing performance of cattle as influenced by water stress and trailing. *Proc. West. Sec. Am. Soc. Anim. Sci.* 26:27-28.
- Rittenhouse, L.R. and F.A. Sneva. 1976. Expressing the competitive relationship between Wyoming big sagebrush and crested wheatgrass. *J. Range. Manage.* 29:326-327.
- Sneva, F.A. and L.R. Rittenhouse. 1976. Crested wheatgrass production: impacts on fertility, row spacing, and standage. *Oregon Agric. Exp. Sta. Tech. Bul.* 135. 26 pp.
- Sneva, F.A., V.E. Hunter and L.R. Rittenhouse. 1976. Adjustment of cattle to water stress. *Proc. West. Sec. Am. Soc. Anim. Sci.* 27:240-243.
- Rittenhouse, L.R. and F.A. Sneva. 1977. A technique for estimating big sagebrush production. *J. Range Manage.* 30:68-70.
- Rittenhouse, L.R. and F.A. Sneva. 1977. Early growth and development of Nordan crested wheatgrass and Sherman big Bluegrass. *J. Range Manage.* 30:236-237.
- Sneva, F.A., L.R. Rittenhouse and V.E. Hunter. 1977. Stockwater effects on cattle performance on the high desert. *Oregon Agric. Exp. Sta. Bull.* 625.
- Kamm, J.A., F.A. Sneva, and L.R. Rittenhouse. 1978. Insect grazers on the cold desert biome. pp. 479-483. in. *Proceedings of the First International Rangeland Congress.* ed. D.N. Hyder. Society for Range Management, Denver.
- Rittenhouse, L.R. and M. Vavra. 1978. Nutritional aspects of native and seeded sagebrush range for domestic livestock. *Proc. Sagebrush Ecosystem Symposium.* Logan, Utah. pp 179-191.
- Kartchner, R.J., L.R. Rittenhouse and R.J. Raleigh. 1979. Forage and animal management implications of spring and fall calving. *J. Anim. Sci.* 48:425-429.
- Svejcar, T., L.R. Rittenhouse and C.W. Cook. 1979. Defoliation of Russian wildrye in southeastern Colorado. *Colo. State Univ. Exp. Sta. Prog. Rpt. No. 3.* pp. 2.
- Svejcar, T., L.R. Rittenhouse, C.W. Cook and H. Mann. 1979. Range research at the southeastern Colorado Research Center. *Colo. State Univ. Exp. Sta. Prog. Rpt. No. 4.* pp. 6.
- Svejcar, T., L.R. Rittenhouse and C.W. Cook. 1979. Complementing native range with wheat and sorghum pastures. *Colo. State Univ. Exp. Sta. Prog. Rpt. No. 5.* pp.2.
- Bartel, L.E. and L.R. Rittenhouse. 1979. Grazing studies on Gambel oak rangeland at the San Juan Basin Research Center. *Colo. State Univ. Exp. Sta. Prog. Rpt. No. 10.* pp. 4.
- Smith, L.W, G.W. Thomas, A.A. Carr and Committee. 1980. Resources and environment. pp. 237-262. In. *Animal Agriculture - research to meet human needs in the 21st century.* Ed. W.G. Pond, R.A Merkel, L.D. McGilliard and V.J. Rhodes. Westview Press, Boulder.

- Sneva, F.A., L.R. Rittenhouse and P.T. Tueller. 1980. Forty years-inside and out. Oregon Agric. Exp. Sta. Spec. Rpt. 586. pp 10-12.
- Bartel, L.E. and L.R. Rittenhouse. 1980. Herbicidal control of Gambel oak sprouts in southwestern Colorado. Colo. State Univ. Exp. Sta. Prog. Rpt. No. 4. pp. 4.
- Germain, L., L.R. Rittenhouse and H. Mann. 1980. Grazing studies at the southeastern Colorado Research Center. Colo. State Univ. Exp. Sta. Prog. Rpt. No. 4. pp. 5.
- Raliegh, R.J., R.J. Kartchner and L.R. Rittenhouse. 1980. Chromic oxide in range nutrition studies. Or. Agric. Exp. Sta. Bull. No. 641. pp. 41.
- Cook, C.W., J.W. Walker, M.H. Ebberts, L.R. Rittenhouse, E.T. Bartlett, D.A. Cramer, P.T. Fagerlin and M.C. McKean. 1981. Alternate grass and grain systems for beef production. Colo. State Univ. Exp. Sta. Bull 479S. pp 95.
- Rittenhouse, L.R. 1981. Impacts of grazing intensity and specialized grazing systems on livestock responses-A discussant. NAS Committee on Developing Strategies.
- Allison, C.D., M.M. Kothmann and L.R. Rittenhouse. 1982. Efficiency of forage harvest by grazing cattle. J. Range Manage. 35:351.
- Rittenhouse, L.R. and R.L. Senft. 1982. Effects of daily weather fluctuations on the grazing behavior of cattle. Proc. West. Sec. Am. Soc. Anim. Sci. 33:305-307.
- Rittenhouse, L.R., D.E. Johnson and M.M. Borman. 1982. Comparison of fecal excretion and intake estimates obtained from external markers and total fecal collections. Proc. West. Sec. Am. Soc. Anim. Sci. 33:284-286.
- Bartel, L.E. and L.R. Rittenhouse. 1982. Effects of Tebuthiuron on Gambel oak and associated understory. Colo. State Univ. Exp. Sta. Prog. Rpt. No. 4. pp. 4.
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- Johnson, D.E., M.M. Borman and L.R. Rittenhouse. 1982. Intake, apparent utilization and rate of passage in mares and cows. Proc. West. Sec. Am. Soc. Anim. Sci. 33:294-296.
- Rittenhouse, L.R. and L.E. Bartel. 1982. Chemical control of oak brush sprouts in southwestern Colorado. Colo. State Univ. Exp. Sta. Prog. Rpt. No. 5. pp. 2.
- Rittenhouse L.R. , L.E. Bartel and A.H. Denham. 1982. Seasonal response of growing heifers to four stocking rates. Colo. State Univ. Exp. Sta. Prog. Rpt. No. 6. pp. 4.
- Loehle, C. and L.R. Rittenhouse. 1982. An analysis of forage preference indices. J. Range Manage. 35:316-319.
- Rittenhouse, L.R., D.E. Johnson and M.M. Borman. 1982. Comparison of fecal excretion and intake estimates obtained from external markers and total fecal collection. Proc. West. Sec. Am. Soc. Anim. Sci. 33:28.

- Svejcar, T. and L.R. Rittenhouse. 1982. Standing crop and vigor of defoliated Russian wildrye in southeastern Colorado. *J. Range Manage.* 35:594-597.
- Sosebee, R.E., P.T. Tueller and L.R. Rittenhouse. 1982. Water related technologies for sustaining agriculture in the U.S. arid and semi-arid lands-rangeland uses. Technologies for increasing water use on-site. Report to Office of Technology Assessment. Congress of the U.S. pp 73. Appendices.
- Johnson, D.E., L.R. Rittenhouse and M.M. Borman. 1982. Estimating rate of fecal or urine excretion with missing or incomplete collections. *Proc. West. Sec. Am. Soc. Anim. Sci.* 33:287-288.
- Johnson, D.E., L.R. Rittenhouse and M.M. Borman. 1982. Intake, apparent utilization and rate of digestion in mares and cows. *Proc. West. Sec. Am. Soc. Anim. Sci.* 33:294-296.
- Senft, R.L. and L.R. Rittenhouse. 1983. A matrix approach to determining diets of free-roaming cattle on patchy vegetation. *Proc. West. Sec. Am. Soc. Anim. Sci.* 34:197-200.
- Senft, R.L., L.R. Rittenhouse and R.G. Woodmansee. 1983. The use of regression models to predict spatial patterns of cattle behavior. *J. Range Manage.* 36:553-557.
- Stillwell, M.A., R.L. Senft and L.R. Rittenhouse. 1983. Total urine collection from free-grazing heifers. *J. Range Manage.* 36:798-799.
- Senft, R.L. and L.R. Rittenhouse. 1984. Modelling range animal production on spatially heterogeneous vegetation. *Proc. Second international Grassland Congress. Soc. Range Manage.* Denver.
- Senft, R.L., L.R. Rittenhouse and R.G. Woodmansee. 1984. Diets selected by cattle from plant communities on shortgrass range. *Proc. West. Sec. Am. Soc. Anim. Sci.* 35:180-183.
- Senft, R.L., L. R. Rittenhouse and M.A. Stillwell. 1984. Seasonal changes in nitrogen and energy budgets of range cattle. *Proc. West. Sec. Am. Soc. Anim. Sci.* 35:200-203.
- Cook, C.W., D.A. Cramer and L.R. Rittenhouse. 1984. Acceptable block beef from steers grazing range and crop forage. *J. Range. Manage.* 37:122-126.
- Rittenhouse, L.R. 1985. Why do grazing animals do what they doo doo? *Proc. Range Nutrition Workshop. Range Science. Dept. Photocopy. Colo. State. Univ. Ft. Collins.* pp. 12.
- Senft, R.L. and L.R. Rittenhouse. 1985. A model of thermal acclimation in cattle. *J. Anim. Sci.* 61:297-306.
- Senft, R.L., L.R. Rittenhouse and D.L. Baker. 1985. Thermal acclimation in three ruminant species: deer, elk and cattle. *Proc. 17th Conf. on Agric. and For. Meteorology and the 7th Conf. on Biometeorology and Aerobiology. Am. Meteorological Soc. Boston.*
- Senft, R.L. and L. R. Rittenhouse. 1985. Effects of day-to-day weather fluctuations of grazing behavior of horses. *Proc. West. Sec. Am. Soc. Anim. Sci.* 36:298-300.

- Senft, R.L., L.R. Rittenhouse and R.G. Woodmansee. 1985. Factors influencing patterns of cattle grazing behavior on shortgrass steppe. *J. Range Manage.* 38:82-87.
- Senft, R.L., L.R. Rittenhouse and R.G. Woodmansee. 1985. Factors influencing selection of resting sites by cattle on shortgrass steppe. *J. Range Manage.* 38:295-299.
- Shaw, R.B. and L.R. Rittenhouse. 1985. Seeding trials at the southeastern Colorado research Center. *Colo. State. Univ. Agric. Exp. Sta. Tech. Rpt. No. 85-1.* pp. 7.
- Rittenhouse, L.R. and C.D. Bonham. 1986. Introduction to statistical analysis and modeling of grazing systems. PP. 1-8. In: *Statistical Analysis and Modeling of Grazing Systems Symposium Proceedings*. February 11, 1986, Kissimmee, Florida. Society for Range Management, Denver, Colo.
- Bailey, D.W., D.E. Johnson, G.Q. Fitch and L.R. Rittenhouse. 1986. Effect of thermal acclimation on intake and use of energy by growing beef cattle. *Proc. West. Sec. Am. Soc. Anim. Sci.* 37:
- Rittenhouse, L.R. 1986. The relative efficiency of rangeland use by ruminants and non-ruminant herbivores. In. *Grazing in Northern Latitudes*. pp. 179-191. O. Gundmundsson. Ed. Plenum Press. NY.
- Arnalds, A. and L.R. Rittenhouse. 1986. Stocking rates for northern rangelands. pp.335-345. In. *Grazing Research at Northern latitudes*. Ed. O. Gundmundsson. Plenum Press, NY.
- Archer, S.A. and L.R. Rittenhouse. 1986. Conclusions and recommendations. Pp. 349-351. In. *Grazing Research at Northern latitudes*. Ed. O. Gundmundsson. Plenum Press, NY.
- Rittenhouse, L.R. and L.R. Roath. 1987. Forage Quality Characteristics: Primary chemistry of grasses. pp. 25-37. In. *Integrated Pest Management on Rangeland: A shortgrass prairie perspective*. Ed. J. Capinera. Westview Press. Boulder, CO.
- Bartlett, ET and LR Rittenhouse. 1987. Implications of technological advances in range livestock production. *Rangelands*. 9:
- Senft, R.L., D.W. Bailey, M.B. Coughenour, L.R. Rittenhouse, O. Sala and D.M. Swift. 1987. Large Herbivore foraging tactics and ecological hierarchies. *Bioscience* 37:789-798.
- Senft, R.L., M.A. Stillwell and L.R. Rittenhouse. 1987. Nitrogen and energy budget of cattle grazing shortgrass range. *J. Range Manage.* 40:421-424.
- Harper, K.T., G.B. Ruyle and L.R. Rittenhouse. 1987. Toxicity problems associated with the grazing of oak in intermountain and Southwestern U.S.A. pp.197-206. In. *The ecology and economic impact of poisonous plants on livestock production*. Ed. L.F. James, M.H. Ralphs and D.B. Mielson. Westview Press. Boulder.
- Rittenhouse, L.R. and A. El Aich. 1987. Marginal lands at the crossroads in Morocco. *Proc. Seminaire sur l'Utilization et la Protection de l'Environnement*. Faculty of Sciences. Meknes
- Bailey, D.W., L.R. Rittenhouse, R.W. Richards, and R.H. Hart. 1987. Spatial memory of heifers in radial-and parallel-arm mazes. *Proc. West. Sec. Am. Soc. Anim. Sci.* 37:7-10.

- Rittenhouse, L.R. 1988. The grazing process and role of animal behavior in production. Veterinary Practitioners Shortcourse on Applied Cow-Calf Nutrition, Colorado Veterinary Medical Association. pp. 26-37.
- Cook, C.W. and L.R. Rittenhouse. 1988. Grazing and seeding research at the Southeast Colorado Research Station. Colorado State University Agric. Exp. Sta. Tech Bull. No. LTB88-8. pp. 50.
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- El Aich, A. and L.R. Rittenhouse. 1988. Use of habitats by Free-grazing sheep. Appl. Anim. Behav. Sci. 23:223-231.
- El Aich, A. and L.R. Rittenhouse. 1988. Herding and forage ingestion by sheep. Appl. Anim. Behav. Sci. 23:279-290.
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