

---

# CURRENT LITERATURE

---

## RANGE PLANTS: *Forage value, chemical composition, ecology, physiology, systematics*

- ALLRED, B. W. (Soil Conservation Service, Ft. Worth, Texas). Southwestern trees and shrubs. Pinon pine (*Pinus edulis*). Sheep and Goat Raiser 29(11): 26-28. Aug. 1949.
- BILLINGS, W. D. (Biology Dept., Univ. Nevada, Reno, Nev.). The shadscale vegetation zone of Nevada and eastern California in relation to climate and soils. Amer. Midl. Natur. 42(1): 87-109. July 1949. The shadscale vegetation of Nevada and eastern California lies in a distinct zone between the creosote bush and sagebrush zones and it is associated with a distinct climatic zone and gray desert soils which may or may not possess a degree of salinity in the subsoil.
- BLAISDELL, J. P. AND J. F. PECHANEC (Intermtn. For. & Range Exp. Sta., Ogden, Utah; Pac. Northw. For. & Range Exp. Sta., Portland, Ore.). Effects of herbage removal at various dates on vigor of bluebunch wheatgrass and arrowleaf balsamroot. Ecology 30(3): 298-305. July 1949. Studies at the U. S. Sheep Exp. Sta. over a 6 yr. period showed that complete herbage removal of bluebunch wheatgrass and arrowleaf balsamroot is most injurious after the date when substantial regrowth is impossible and before maturity. The effect of clipping both species apparently depends upon the amount of herbage present during the storage period which follows cessation of growth.
- BLOMQUIST, H. L. (Botany Dept., Duke Univ., Durham, N. Car.). The grasses of North Carolina. Duke Univ. Press, Durham, N. Car. 1948. \$7.50. 276 pp. A systematic treatment with distribution maps and discussion of important grasses in the vegetation types of the state.
- CORY, V. L. (South. Methodist Univ., Dallas, Tex.). On some grasses, chiefly of the Edwards Plateau of Texas. Field and Laboratory 17(2): 41-52. Apr. 1949. Forage value, management and ecology of the important grasses on the Sonora Range Experiment Station.
- CORY, V. L. (South. Methodist Univ., Dallas, Tex.). The disappearance of plant species from the range in Texas. Field and Laboratory 17(3): 99-115. June 1949. Descriptions and comments on numerous palatable browse and forb species that have diminished under grazing.
- HUBBARD, W. A. (Dominion Range Exp. Sta., Manyberries, Alberta). Results of studies on crested wheatgrass. Sci. Agriculture 29(8): 385-395. Aug. 1949. Results of reseeding abandoned dryland, spring flooded meadows, and native prairie with various seedbed preparations, spacing, and seeding methods showed that over a 10 yr. period seeding rates and cultural methods employed had little effect on the density or yield of crested wheatgrass stands.
- KNOWLES, R. P. AND W. J. WHITE. (Dominion Forage Crops Lab., Saskatoon, Sask.). The performance of southern strains of brome grass in

Western Canada. *Sci. Agriculture* 29(9): 437-450. Sept. 1949. Forage production of southern strains of smooth brome at 9 stations in western Canada was found to be similar to that of northern commercial brome-grass. Southern strains were 2 to 4 days later in flowering and showed more resistance to spring and fall frosts than northern strains.

LANCASTER, R. R. (Tex. Agric. Ext. Serv., College Sta., Tex.). Clovers for Texas pastures. *Tex. Agr. Ext. Serv. Bull.* 168. 24 pp. 1948.

SHIPLEY, M. A. AND F. B. HEADLEY. (Nev. Agr. Exp. Sta., Reno, Nev.). Nutritive value of wild meadow hay as affected by time of cutting. *Nevada Agr. Exp. Sta. Bull.* 181. 23 pp. 1948. Feeding trials with steers on early- and late-cut meadow hay correlated with weekly chemical composition data obtained over a 4 year period showed that early-cut hay is superior in feed value.

STARK, R. H. AND K. H. KLAGES. (Soil

Cons. Serv. Nursery, Aberdeen, Ida.; Idaho Agr. Exp. Sta., Moscow, Idaho). Manchar smooth brome. *Idaho Agr. Exp. Sta. Bull.* 275. 6 pp. Apr. 1949. Characteristics of Manchar smooth brome and hay and seed yields from plantings at Aberdeen and Moscow, Idaho.

STODDART, L. A., A. H. HOLMGREN, AND C. W. COOK. (Utah Agr. Exp. Sta., Logan, Utah). Important poisonous plants of Utah. *Utah Agr. Exp. Sta. Spec. Report No. 2.* 21 pp. June 1949. \$.50. General discussion of 18 important poisonous plants of Utah with 12 colored illustrations and additional figures.

WEAVER, J. E. AND R. W. DARLAND. (Botany Dept., Univ. Nebraska, Lincoln, Nebr.). Quantitative study of root systems in different soil types. *Science* 110: 164-165. Aug. 12, 1949. Method applied to range grasses consists of washing out root systems from monoliths of soil cut from exposed trench faces.

RANGE AND PASTURE MANAGEMENT: *Management plans, surveys, utilization, maintenance*

BEETLE, A. A. (Wyo. Agr. Exp. Sta., Laramie, Wyo.). Problems of range condition classes on the Laramie Plains, Wyoming. *Wyo. Agr. Expt. Sta. Wyo. Range Mgt. Issue No. 12.* 5 pp. mimeo. June 1949.

BOYLE, R. V. (Soil Conservation Service, Albuquerque, N. Mex.). The Soil Conservation Service action program in range management. *U. S. Soil Conservation Service Southwest. Reg. Bull.* 105. 16 pp. mimeo. April 1948.

CHAPLINE, W. R. (Div. Range Research, U. S. Forest Service, Washington, D. C.). Progress in range management. *Ames Forester* 37: 53-64. 1949.

CORY, V. L. (South. Methodist Univ.,

Dallas, Tex.). A study of the carrying capacity of a range. *Tex. Acad. Sci. Proc. & Trans.* (1946) 30: 175-180. 1948. Studies on grazing capacity and forage consumption by cattle, sheep and goats conducted in 1924-29 at the Ranch Exp. Sta., Sonora, Texas.

FORSLING, C. L. (Dept. of Interior, Albuquerque, New Mexico). Relation of sustained livestock production to condition of grazing land. *Lake Success, N. Y. United Nations Doc. E. Conf. 7/ SEC/ W 22.* 16 pp. mimeo. 1949.

FUELLEMAN, R. F., R. J. WEBB, W. G. KAMMLADE, AND W. L. BURLISON. (Coll. of Agric., Univ. Illinois, Urbana,

- Ill.). The effect of intensity of grazing on pasture and animal production at the Dixon Springs Station. *Jour. Animal Sci.* 8(3): 450-458. Aug. 1949. Comparison of botanical analyses and livestock gains under continuous and alternate moderate and heavy grazing by cattle and sheep in southern Illinois. Greatest gains were made under heavy alternate grazing.
- LL, J. B. (Agron. Dept., Miss. State Coll., State College, Miss.). Winter grazing in South Mississippi. *Miss. Agr. Exp. Sta. Circ.* 134 (rev.) 13 pp. 1948.
- UMPHREY, R. R. (Botany Dept., Univ. Arizona, Tucson, Ariz.). An analysis of forage utilization methods and a proposal for utilization surveys by range condition classes. *Jour. Forestry* 47(7): 549-554. July 1949. A proposal for utilization surveys based upon flexible proper use factors for key species and utilization measurements within areas in various range condition classes.
- NCASTER, R. R., E. JAMES, R. Y. BAILEY AND R. R. HARRIS. (Texas Agr. Ext. Serv., College Sta., Texas). Pastures. Grazing, hay and silage crops. Turner E. Smith Co., Atlanta, Ga. 500 pp. 1949. \$3.00. A text and reference for teachers of vocational agriculture on pastures and feed forage crops with emphasis on all-year grazing programs in the South and Southwest.
- CHANEC, J. F. AND G. STEWART. (Pac. Northw. For. & Range Exp. Sta., Portland, Ore.; Intermtn. For. & Range Exp. Sta., Ogden, Utah). Grazing spring-fall sheep ranges of Southern Idaho. U. S. Dept. Agr. Circ. 808. 34 pp. May 1949. Criteria for the recognition of 4 broad productivity situations on spring-fall sagebrush ranges and of improvement or downward trend. Grazing management, season of grazing, intensity of stocking, grazing systems and range improvement practises on spring-fall sheep ranges based on 20 years study at or near the U. S. Sheep Exp. Sta., Dubois, Idaho.
- PENFOUND, W. T. (Dept. Pl. Sciences, Univ. Oklahoma, Norman, Okla.). An improved quadrat frame for the analysis of plant populations. *Ecology* 30(3): 382-383. July 1949. An aluminum, variable, spring-clip frame.
- POULTON, C. E. (An. Husb. Dept., Ore. State Coll., Corvallis, Ore.). Sampling technique in range forage volume inventory. *Northwest Science* 22(3): 108-115. Aug. 1948. Discussion of range reconnaissance and weight inventory for measuring forage yield.
- RENNER, F. G. (Soil Conservation Service, Washington 25, D. C.). Recent advances in methods for restoring deteriorated grazing land. *Lake Success*, N. Y. United Nations Doc. E/Conf. 7/ SEC/ W 26. 13 pp. mimeo. 1949.
- SPRAGUE, M. A., R. P. BARTHOLOMEW, AND W. GIFFORD. (Ark. Agr. Exp. Sta., Fayetteville, Ark.). Pasture improvement for Arkansas uplands. *Ark. Agr. Exp. Sta. Bull.* 485. 50 pp. May 1949. Discussion of pasture studies conducted at the Livestock and Forestry Branch Exp. Sta. in n. Arkansas since 1939 to determine the effects of grazing systems, fertilization, mowing and reseeding.
- STATEN, H. W. AND V. G. HELLER. (Okla. Agr. Exp. Sta., Stillwater, Okla.). Winter pasture for more feed and better feed at lower cost. *Okla. Agr. Exp. Sta. Bull.* B-333. 16 pp. May 1949. Comparison of forage production and nutrient content of winter pasture crops under different clipping treatments.

- STOESZ, A. D. AND H. J. HELM. (Soil Cons. Serv. Nursery Division, Lincoln, Nebr.). Grass—a tool in soil conservation. *Jour. Soil & Water Conservation* 3(4): 155–158, 188. Oct. 1948. Conservation and management practises on the land utilization projects and soil conservation districts in the Northern Great Plains.
- U. S. FOREST SERVICE. (Washington, D. C.). Questions and answers about grazing on national forests. U. S. Dept. Agr. AIS no. 80, 18 pp. May 1949.
- U. S. SOIL CONSERVATION SERVICE, Pacific Coast Region (Portland, Ore.). Range condition: a classification of the grassland-sagebrush and aspen forage types in the North Bingham Soil Conservation District by I. Clark. Shelley, Ida. 26 pp. 1948.
- RANGE IMPROVEMENT: *Natural and artificial revegetation, noxious plant control, mechanical improvements*
- ELDER, W. C., H. M. ELWELL AND F. A. ROMSHE. (Okla. Agr. Exp. Sta., Stillwater, Okla.; Red Plains Cons. Exp. Sta., Guthrie, Okla.). Chemical control of weeds and brush in Oklahoma. Okla. Agr. Exp. Sta. Bull. B-335. 26 pp. June 1949. Presents general information on 2,4-D and other herbicide chemicals and discusses the use of 2,4-D, 2,4,5-T, and ammonium sulfamate for the control of brush on range and pasture lands.
- HULL, A. C., JR. (Rocky Mtn. For. & Range Exp. Sta., Ft. Collins, Colo.). Range reseeding. Wyo. Agr. Exp. Sta. Wyo. Range Mgt. Issue No. 8. 4 pp. mimeo. Feb. 1949.
- HULL, A. C., JR. AND G. STEWART. (Rocky Mtn. For. & Range Expt. Sta., Ft. Collins, Colo.; Intermtn. For. & Range Exp. Sta., Ogden, Utah). Seeding Southern Idaho range lands by airplane. Intermtn. For. & Range Exp. Sta., Res. Pap. No. 16. 14 pp. mimeo. April 1948.
- JOHNSON, W. M. AND A. C. HULL, JR. (Rocky Mtn. For. & Range Exp. Sta., Ft. Collins, Colo.). Range forage species for seeding in ponderosa pine areas. Rocky Mtn. For. & Range Exp. Sta., Res. Note No. 5, 3 pp. mimeo. 1949.
- LEMMON, P. E. AND P. W. TAYLOR. (Soil Cons. Serv. Nursery, San Fernando, Calif.). Pampas grass in Southern California. *Soil Conservation* 14(11): 255–257. June 1949. Suggests the use of pampas grass in valley bottoms in s. California for short periods of green forage during arid summer months.
- MARTIN, S. C. U. S. Forest Service, Columbia, Mo.). Controlling mesquite with diesel oil. *The Cattleman* 36(5): 56–57. 89. Oct. 1949.
- REYNOLDS, H. G., F. LAVIN AND H. W. SPRINGFIELD. (Southw. For. & Range Exp. Sta., Tucson, Ariz.). A preliminary guide for range reseeding in Arizona and New Mexico. Southw. For. & Range Exp. Sta., Res. Rpt. No. 7. 12 pp. mimeo. July 1949. Recommended species and methods for preparatory treatment and planting for reseeding sites in the ponderosa pine, big sagebrush, woodland, and semidesert grassland zones.
- STEWART, G. (Intermt. For. & Range Exp. Sta., Ogden, Utah). Range reseeding by airplane compared with standard ground methods. *Agronomy Jour.* 41(7): 283–288. July 1949. Results of naked-seed airplane sowing in the aspen and brush zones in Ephraim

Canyon, Utah, and on burned sagebrush in the Boise River watershed in Idaho and of pellet seeding in 1947 and 1948 at Gooding, Idaho, and the LaSal N. F. in Utah indicate that airplane seeding shows promise in sites where the seedbed can be covered by natural means such as in burns and in aspen types by fallen leaves. Ground procedures have given more dependable results than airplane seed-

ing in getting stands and in forage yields.

WAGNER, J. A. (Papago Indian Agency, Sells, Ariz.). Results of airplane pellet seeding on Indian reservations. *Jour. Forestry* 47(8): 632-635. Aug. 1949. Report of seedings of 90,000 acres from April 1946 to August 1948 on the Papago, San Carlos, Hopi, and Navajo reservations in Arizona.

RANGE INFLUENCES: *Forests, watershed protection, wildlife, recreation*

BAILEY, R. W. AND G. W. CRADDOCK. (Intermtn. For. & Range Exp. Sta., Ogden, Utah). Watershed management for sediment control. *Fed. Interagency Sedimentation Conf. Proc.* 1947: 302-314. 1948.

DULEY, F. L. AND C. E. DOMINGO. (Soil Cons. Service Research, Lincoln, Nebr.). Effect of grass on intake of water. *Nebr. Agr. Exp. Sta. Res. Bull.* 159. 15 pp. Apr. 1949. Infiltration tests with a 16 x 72 in. sprinkler-type infiltrometer on native grass meadow, range land, bluegrass, blue-stem, forest, and sandhill areas and in cultivated soils showed that total cover including live grass and associated litter was more significant in influencing infiltration than the kind of grass or soil type.

DUNFORD, E. G. (Rocky Mtn. For. & Range Exp. Sta., Ft. Collins, Colo.). Relation of grazing to runoff and erosion on bunchgrass ranges. *Rocky Mtn. For. & Range Exp. Sta., Res. Note No. 7*, 2 pp. mimeo. Aug. 1, 1949. Summary of runoff studies at the Manitou Exper. Forest near Colorado Springs.

FITCH, H. S. AND J. R. BENTLEY. (U. S. Fish & Wildlife Service, Leesville, Louisiana; Calif. For. & Range Exp.

Sta., Berkeley, Calif.). Use of California annual-plant forage by range rodents. *Ecology* 30(3): 306-321, July 1949. Enclosure studies with ground squirrels, pocket gophers, and kangaroo rats showed that selective use of the plant species had only limited effect on the composition of the herbaceous cover. Competition between rodents and livestock for forage was found to be more important during the green forage season than during the season of dry forage.

OSBORN, BEN AND P. F. ALLAN. (Soil Conservation Service, Ft. Worth, Tex.). Vegetation of an abandoned prairie dog town in tall grass prairie. *Ecology* 39(3): 322-332. July 1949. Stages of plant succession were reconstructed from plant cover zones on an abandoned prairie dog site in the Wichita Mtn. Wildlife Refuge in Oklahoma. Prairie dogs are considered "animal weeds" which can not survive as the climax cover is restored.

PFADT, R. E. (Entom. Dept., Univ. Wyoming, Laramie, Wyo.). Range grasshoppers as an economic factor in the production of livestock. *Wyo. Agr. Exp. Sta. Wyo. Range Mgt. Issue No. 7*. 7 pp. mimeo. Jan. 1949.

RANGE AND LIVESTOCK ECONOMICS: *Land utilization, public land administration, cost of production, coordination of range and ranch*

- HARDIN, C. M. (Univ. Chicago, Chicago, Ill.) Current proposals for the organization of conservation and land-use programs in agriculture, the United States. *Jour. Farm Econ.* 30: 619-644. Nov. 1948. A discussion of new legislation for the reorganization of the conservation program.
- PECHANEC, J. F. (Pac. Northw. For. & Range Exp. Sta., Portland, Ore.) Have range regulations caused a reduction in sheep numbers in the western states? *Proc. Amer. Dairy Sci. Assoc. West. Div.* 29: 32-38. 1948.
- PINGREY, H. B. (New Mex. Agr. Exp. Sta., State College, N. Mex.) Economic criteria for conservation and development of public lands. *Proc. West. Farm Econ. Assoc.* 21: 93-97. 1948.
- SAUNDERSON, M. H. (U. S. Forest Service Denver 2, Colo.) Ranch prices—whither bound? *Amer. Cattle Prod.* 31(4): 12-13, 37. Sept. 1949. Comparison of 1935-39 and 1948 data for mountain valley, plains, and desert ranches as to prices for cattle, gross income, operating cost, and net income per head.

RANGE LIVESTOCK MANAGEMENT: *Production, feeding, marketing, history*

- BAKER, A. L. (U. S. Bur. An. Ind., Jeanerette, La.) Development of hybrid beef cattle for the Gulf Coast Region. *Brahma Breeder-Feeder* 15 (10): 15-19. Oct. 1949. Breeding investigations at the Iberia Livestock Exp. Farm at Jeanerette, Louisiana.
- BEESON, K. C. (U. S. Dept. Agr. Pl., Soils, and Nutr. Lab., Ithaca, N. Y.) Soil deficiencies and nutritional troubles in animals. *Jour. Soil & Water Conservation* 3(2): 61-68, 100. Apr. 1948. Presents maps showing the location of mineral nutritional diseases in animals in the United States and discusses cobalt, iodine, and phosphorus deficiencies.
- BENNETT, J. A., L. A. Stoddart, AND L. E. HARRIS. (Utah. Agr. Exp. Sta., Logan, Utah) Should range heifers be bred as yearlings? *Amer. Cattle Producer* 31(3): 9. Aug. 1949. In tests at Cache Valley, Utah in 1944-48 early breeding did not reduce the calf crop during subsequent years nor affect the mature weight of mother cows when well fed in winter. Comparable calf crops and calf weights were obtained from heifers calving at 2 and 3 years.
- BISHOPP, F. C., E. W. LEAKE, AND R. W. WELLS. (Bur. Pl. Ent. & Pl. Quar., Washington, D. C.) Cattle grubs or heel flies (*Hypoderma*) with suggestions for their control. *U. S. Dept. Agr. Farmer's Bull.* 1596 (rev.). 21 pp. Jan. 1949.
- BLACK, W. H. AND L. H. TASH. (U. S. Bur. An. Ind., Washington, D. C.) Comparison of methods of supplying phosphorus to range cattle. *U. S. Dept. Agr. Tech. Bull.* 981. 22 pp. 1949. Report of cooperative studies conducted at the King Ranch in Texas in 1941-46 for the purpose of comparing the effects of phosphorus supplied to Brahma-Hereford heifers as bonemeal, in feeders, in drinking water and as fertilizer application of triple superphosphate. Data are presented on the chemical analyses of forage species, blood P, relation of animals weights

- to P intake and on calf production under the various treatments.
- BRIGGS, H. M. (An. Husb. Dept., Okla. A. & M. College, Stillwater, Okla.). Sheep management for Oklahoma farms. Okla. Agr. Exp. Sta. Circ. C-130. 38 pp. Mar. 1949. General discussion of the types and breeds of sheep adapted to Oklahoma, breeding stock, equipment, management and fattening of feeder lambs.
- BRIGGS, H. M. AND K. S. Harmon. (Okla. Agr. Exp. Sta., Stillwater, Okla.). Control of parasites and diseases of sheep. Okla. Agr. Exp. Sta. Circ. C-132. 15 pp. May 1949.
- GILBERT, F. A. (Battelle Memorial Inst., Columbus, Ohio). Mineral nutrition of plants and animals. Univ. Okla. Press, Norman, Okla. 131 pp. 1948. \$2.75. The role of mineral elements and symptoms of mineral deficiencies in plants and animals.
- KIDDER, R. W. (Everglades Exp. Sta., Belle Glade, Fla.). Fattening steers on Everglades winter pasture. Florida Agr. Exp. Sta. Bull. 456. 19 pp. Feb. 1949.
- KNAPP, B., A. L. BAKER, AND R. T. Clark. (U. S. Bur. An. Ind., Washington, D.C.). Crossbred beef cattle for the Northern Great Plains. U. S. Dept. Agr. Circ. 810. 15 pp. 1948. Experiments undertaken at the U. S. Range Livestock Exp. Sta. at Miles City, Montana in 1938-47 to determine the value of cross-breeding Herford, Shorthorn and Aberdeen-Angus cattle for beef production in the Great Plains area.
- NORDBY, J. E. (U. S. Sheep Exp. Sta., Dubois, Idaho). Activating genetic concept into range sheep improvement. Northwest Science 22(2): 60-68. May 1948. General principles of genetics as applied in the sheep breeding work at the U. S. Sheep Experiment Station.
- RHOAD, A. O. (Inter-American Inst. Agric. Sci., Turrialba, Costa Rica.) The Santa Gertrudis breed: the genesis and the genetics of a new breed of beef cattle. Jour. Heredity 40(5): 115-126. May 1949. Genetic background of the first distinctively North American breed of bovine, the Santa Gertrudis.
- SIDWELL, G. M. AND J. O. Grandstaff. (Southw. Range & Sheep Breeding Sta., Ft. Wingate, N. Mex.). Size of lambs at weaning as a permanent character of Navajo ewes. Jour. Animal Sci. (8)(3): 373-380. Aug. 1949. In studies conducted at the Ft. Wingate station in 1938-1947 the weaning weights of Navajo lambs were found to be influenced by: year of birth, age of ewes, breeding of sire, type of birth and rearing, sex and age of lamb at weaning.
- STEPHENS, D. F. and others. (An. Husb. Dept., Okla. A. & M. College, Stillwater, Okla.). Feeding and breeding tests with sheep, swine, and beef cattle. Progress report, 1948-49. Okla. Agr. Exp. Sta. Misc. Publ. MP-15. 71 pp. May 1949. Includes discussions of phosphorus studies of range beef cattle; effect of breed, age and season upon the level of blood constituents of beef cattle; carotene supplementation of cattle under range conditions; and other studies on fattening steers and cattle.
- TERRILL, C. E. (West. Sheep Breeding Lab., Dubois, Idaho). The relation of face covering to lamb and wool production in range Rambouillet ewes. Jour. Animal Sci. (83): 353-361. Aug. 1949. Studies conducted in 1938-1940 at the Dubois station on nearly 800 Rambouillet ewes showed that ewes with open faces produced 11.3% more