References

- Ahlgren, G.H. 1949. Forage crops. McGraw-Hill Book Co., New York, NY.
- Anderson, E.W. 1974. Indicators of soil movement on range watersheds. Journal of Range Management 27:244–247.
- Anderson, W.P. 1983. Weed science: Principles, 2nd ed. West Publishing Co., St. Paul, MN.
- Archer, S., and F.E. Smeins. 1991. Ecosystem level processes. Grazing Management an Ecological Perspective, chapter 5, R.K. Heitscmidt and J.W. Stuth, eds., Timber Press, pp. 109–139.
- Armbrust, D.V. 1968. Windblown soil abrasive injury to cotton plants. Agronomy Journal 60:622–625.
- Ashton, F.M., and T.J. Monaco. 1991. Weed science, principle and practice. 3rd ed. John Wiley and Sons, New York, NY.
- Ball, D.M., C.S. Hoveland, and G.D. Lacefield. 1991. Southern forages. Potash and Phosphate Institute, Norcross, GA.
- Barker, S., and K. Egen. 1993. Range trend monitoring in southern Arizona. Rangelands 15(4):166–167.
- Barnes, K.K., W.M. Carleton, H.M. Taylor, R.I. Throckmorton, and G.E. Vanden Berg (organizers). 1971. Compaction of agricultural soils. American Society of Agricultural Engineers. St. Joseph, MI.
- Barnes, R.F., D.A. Miller, and C.J. Nelson. 1995. Forages, the science of grassland agriculture. 5th ed., Vols. 1 and 2, Iowa State University Press, Ames, IA.
- Barnes, T.G., R.K. Heitschmidt, and L.W. Varner. 1991. Wildlife. In Grazing Management: An Ecological Perspective, R.K. Heitschmidt and J.W. Stuth (eds), chapter 8, Timber Press, Portland, OR, pp. 179–190.
- Baver, L.D. 1961. Soil physics. 3rd ed., John Wiley and Sons, New York, NY.

- Bedunah, D.J., and R.E. Sosebee. 1995. Wildland plants, physiological ecology and developmental morphology. Society for Range Management, Denver, CO.
- Belnap, J., and J.S. Gardner. 1993. Soil microstructure in soil of the Colorado Plateau: The role of the cyanobacterium *Microcoleus vaginatus*. Great Basin Naturalist 53: 40-47.
- Black, C.A. 1957. Soil-plant relationships. John Wiley and Sons, New York, NY.
- Blackburn, W.H. 1975. Factors influencing infiltration and sediment production of semiarid rangelands. Nevada Water Resources Res. 11:929–937.
- Blackburn, W.H., and M.K. Wood. 1990. Influence of soil frost on infiltration of shrub coppice dune and dune interspace soils in southern Nevada. Great Basin Naturalist 50:41–46.
- Blackburn, W.H., F.B. Pierson, C.L. Hanson, T.L. Thurow, and A.L. Hanson. 1992. The spatial and temporal influences of vegetation on surface soil factors in semiarid rangelands. Transactions of the ASAE. 35:479–486.
- Blackmore, J. 1958. Do fertilizers pay? *In* Efficient use of fertilizers. FAO Agricultural Studies No. 43, Food and Agricultural Organization of the United Nations, Rome, Italy.
- Blaser, R.E., et al. 1986. Forage-animal management systems. Virginia Polytechnic Institute and State University, Blacksburg, VA.
- Blue, W.G., and V.W. Carlisle. 1985. Soils for clovers. In Clover Science and Technology, N.L.Taylor (ed.), Amer. Soc. Agron., Madison, WI, pp. 185–204.
- Bolton, J.L., and R.E. McKenzie. 1946. The effect of early spring flooding on certain forage crops. Scientific Agriculture 26:99–105.
- Bond, R.D., and J.R. Harris. 1964. The influence of the microflora on the physical properties of soils. Effects associated with filamentous algae and fungi. Australian Journal of Soil Research 2:111–122.

- Bondi, A.A. 1987. Animal nutrition. John Wiley and Sons, New York, NY.
- Bonham, C.D. 1989. Measurements for terrestrial vegetation. Wiley-Interscience, John Wiley and Sons, New York, NY.
- Bosworth, S.C. 1995. High potassium forages and the dry cow. University of Vermont, Burlington, VT.
- Bower, C.A. 1959. Chemical amendments for improving sodium soils. Agric. Info. Bul. No. 195, U.S. Gov. Print. Off., Washington, DC.
- Brady, N.C. 1974. The nature and properties of soils. 8th Ed., Macmillan Publ. Co., New York, NY.
- Brady, N.C., and A.G. Norman. 1957, 1965, and 1970. Advances in agronomy. Vols. 9, 17, and 22, Academic Press, New York, NY.
- Brady, N.C., and R.R. Weil. 1999. The nature and properties of soils, 12th ed. Prentice-Hall, Inc., Upper Saddle River, NJ.
- Briske, D.D. 1991. Developmental morphology and physiology of grasses. Grazing Management, an Ecological Perspective, ch. 4, R.K. Heitschmidt and J.W. Stuth (eds.), Timber Press, pp. 85–107.
- Briske, D.D., and J.H. Richards. 1994. Physiological responses of individual plants to grazing: Current status and ecological significance. *In* Ecological Implications of Livestock Herbivory in the West, N. Vavra, W.A. Laycock, and R.D. Pieper (eds.), Society for Range Management, Denver, CO, pp. 147–176.
- Bryan, R.B. 1987. Processes and significance of rill development. *In* Bryan, R.B. (ed.), Rill erosion: processes and significance. Catena Supplement, 8, Catena Verlag, Germany, pp 1–16.
- Buckner, R.C., and L.P. Bush. 1979. Tall fescue. Agronomy Monograph No. 20, American Society of Agronomy, Madison, WI.

- Chapin, F.S., III. 1993. Functional role of growth forms in ecosystem and global processes. *In J.R.*Ehleringer and C.B. Field (eds.), Scaling physiological processes: leaf to globe. Academic Press, San Diego, CA, pp. 287–312.
- Castle, E.N., M.H. Becker, and A.G. Nelson. 1987. Farm business management: The decision-making process. Macmillan Publ. Co., New York, NY, 413 pp.
- Cathey, H.M. 1990. USDA plant hardiness zone map. Misc. Pub. No. 1475, USDA, Agric. Res. Serv., Washington, DC.
- Chepil, W.S. 1945. Dynamics of wind erosion IV. The translocating and abrasive action of the wind. Soil Science 61:167–171.
- Chepil, W.S., and N.P Woodruff. 1963. The physics of wind erosion and its control. Advances in Agronomy 15:211–302.
- Chessmore, R.A. 1979. Profitable pasture management. Interstate Printers and Publishers, Danville, IL.
- Church, D.C. 1991. Livestock feeds and feeding, 3rd ed. Prentice Hall, NJ.
- Church, D.C., and W.G. Pond. 1976. Basic animal nutrition and feeding. John Wiley and Sons, New York, NY.
- Clements, F.E. 1916. Plant succession: An analysis of the development of vegetation. Carnegie Inst., Washington Pub. 242:1–512.
- Committee on Rangeland Classification, Board of Agriculture, National Research Council. 1994. Rangeland health: New methods to classify, inventory, and monitor rangelands. National Academy Press, Washington, DC, 180 pp.
- Committee on the Role of Alternative Farming Methods in Modern Production Agriculture, Board on Agriculture, National Research Council. 1989.
 Alternative agriculture. National Academy Press, Washington, DC, 448 pp.

- Cook, C.W., and J. Stubbendieck, eds. 1986. Range research: Basic problems and techniques. Society for Range Management, Denver, CO.
- Cooper, J.P. (ed.). 1975. Photosynthesis and productivity in different environments. Cambridge University Press, Cambridge, MA.
- Copeland, J.D. 1995. Recreational access to private lands: Liability problems and solutions. National Center for Agricultural Law Research and Information, University of Arkansas, Fayetteville, AR, 215 pp.
- Cornell University. 1987. Cornell field crops and soils handbook, Ithaca, NY.
- Cornell University. 1992. 1993 Cornell recommendations for integrated field crop management. Cornell University, Ithaca, NY.
- Cowan, J.R. 1956. Tall fescue. *In* Advances in Agronomy, Vol. VIII, Academic Press, New York, NY.
- Dalrymple, R.L., R. Mitchell, B. Flatt, W. Dobbs, S. Ingram, and S. Coleman. 1999. Crabgrass for forage: management from the 1990s. The Noble Foundation, Ardmore, OK.
- Daubenmire, R. 1968. Plant communities: A textbook of plant synecology. Harper and Row, New York, NY.
- Dawson, T.E., and F.S. Chapin, III. 1993. Grouping plants by their form-function characteristics as an avenue for simplification in scaling between leaves. *In* Ehleringer, J.R., and C.B. Field (eds.), Scaling physiological processes: leaf to globe. Academic Press, San Diego, CA, pp 313–322,.
- Decker, A.M., and T.S. Romingen. 1957. Heaving in forage stands and in bare ground. Agronomy Journal 49:412-415, American Society of Agronomy, Madison, WI.
- Dethier, B.E., and M.T. Vittum. 1963. Growing degreedays. New York State Agric. Exp. Sta. Bul. No. 801, Geneva, NY.

- Dubos, R.J. 1978. The resilience of ecosystems, an ecological view of environmental restoration. Colorado Assoc. Univ. Press, Boulder, CO.
- Dyksterhuis, E.J. 1949. Condition and management of rangeland based on quantitative ecology. JRM 2:104–115.
- Dyksterhuis, E.J. 1958. Ecological principles in range evaluation. Bot. Rev. 24:253–272.
- Eldridge, D.J., and S.B. Greene. 1994. Microbiotic soil crusts: A review of their roles in soil and ecological processes in rangelands of Australia. Australian Journal of Soil Research 32:389–415.
- Emmick, D.L., and D.G. Fox. 1993. Prescribed grazing management to improve pasture productivity in New York. Cornell University and USDA, Soil Conservation Service, Ithaca, NY.
- Fahey, G.C. 1994. Forage quality, evaluation and utilization. Proceeding from National Conference on Forage Quality, Evaluation and Utilization, Lincoln, NE.
- Farina, M.P.W., P. Channon, and G.R. Thibaud. 2000. A comparison of strategies for ameliorating subsoil acidity. I. Long-Term Growth Effects, Soil Sci. Soc. Amer. J. 64:646–651.
- Fehrenbacher, J.B., R.A. Pope, I.J. Jansen, J.D. Alexander, and B.W. Ray. 1978. Soil productivity of Illinois. Univ. Illinois Coop. Ext. Cir. No. 1156.
- Fick, G.W., and R.R. Seaney. 1988. Species selection as applied to pasture. *In Pasture in the Northeast* Region of the United States, Workshop Proceedings. Northeast Regional Agricultural Engineering Service, Ithaca, NY.
- Forage and Grazing Terminology Committee. 1991. Terminology for grazing lands and grazing animals. Pocahontas Press, Blacksburg, VA.
- Forbes, T.D.A. 1988. Researching the plant-animal interface: The investigation of ingestive behavior in grazing animals. Journal of Animal Science 66:2369–2379.

- Foy, C.D. 1974. Effects of aluminum on plant growth. *In* The Plant Root and its Environment, Proc. Univ Press of Virginia, Charlottesville, VA, pp. 601–642.
- Foy, C.D. 1997. Tolerance of eastern gamagrass to excess aluminum in acid soil and nutrient solution. J. Plant Nutrition 20(9):1119–1136.
- Friedel, M.H. 1988. Range condition and the concept of thresholds. *In* Abstracts of the Third International Rangeland Congress, Nov. 7–11, Vigyan Bhavan, New Delhi, pp. 1–3.
- Friedel, M.H. 1991. Range condition assessment and the concept of thresholds: A viewpoint. Journal of Range Management, Vol. 44, No. 5, pp. 422– 426.
- Gasbarre, L.C. 1995. Control of gastrointestinal nematodes in dairy cattle under intensive rotational grazing management. SARE Grant Proposal. ARS, Beltsville Agric. Res. Center, Beltsville, MD.
- Gee, C.K., and F. McWilliams. 1972. Irrigated pasture costs and production on the Golden Plains Area of Colorado. Colorado State University Cooperative Extension Service, Fort Collins, CO.
- Geer, I.W. 1996. Glossary of weather and climate. Amer. Meteor. Soc., Boston, MA.
- Gibbens, R.P., J.M. Tromble, J.T. Hennessy, and M. Cardenas. 1983. Soil movement in mesquite duneland and former grasslands of southern New Mexico from 1933 to 1980. Journal of Range Management 36:145–148.
- Gilbert, C.F. 1999. Flooding tolerance of eastern gamagrass. Quicksand PMC, USDA-NRCS, Quicksand, Kentucky. *From* Gamagrass Home Page, Gamagrass Seed Co., Falls City, NE.
- Gillette, D.A., and T.R. Walker. 1977. Characteristics of airborne particles produced by wind erosion of sandy soil, High Plains of west Texas. Soil Science 123:97–110.

- Gillette, D.A., I.H. Blifford, and D.W. Fryrear. 1974. The influence of wind velocity on the size distributions of aerosols generated by the wind erosion of soils. Journal of Geophysical Research 79:4068–4075.
- Gillette, D.A., I.H. Blifford, and I.H. Fenster. 1972.

 Measurements of aerosol-size distribution and vertical fluxes of aerosols on land subject to wind erosion. Journal of Applied Meteorology 11:977–987.
- Graffis, D.W., E.M. Juergenson, and M.H. McVickar. 1985. Approved practices in pasture management. 4th ed., Interstate Printers and Publishers, Inc., Danville, IL.
- Grafton, W.N., A. Ferrise, D. Colyer, D.K. Smith, and J.E. Miller (eds). 1990. Conference proceedings: Income opportunities for the private landowner through management of natural resources and recreational access. West Virginia University Extension Service, Morgantown, WV, 414 pp.
- Grazing Lands Forum. 1987. Multiple use values of grazing lands. Second forum proceedings, October 5–7, 1987, Harpers Ferry, WV, 74 pp.
- Grazing Lands Technology Institute. 1977. Inventorying, classifying, and correlating juniper and pinyon communities to soils in Western United States. USDA, Natural Resourc. Conserv. Serv., Fort Worth, TX.
- Gustine, D.L., and H.E. Flores. 1995. Phytochemicals and health. Vol. 15, Current Topics in Plant Physiology, An ASPP Series, American Society of Plant Physiologists, Rockville, MD.
- Hacker, J.B. (ed). 1981. Nutritional limits to animal production from pastures. Proceedings of an international symposium, St. Lucia, Queensland, Australia, pp. 183–473.
- Hagen, L.J. 1984. Soil aggregate abrasion by impacting sand and soil particles. Transactions of the American Society of Agricultural Engineering 27:805–808.

- Hanson, A.A. 1990. Practical handbook of agriculture. CRC Press, Boca Raton, FL.
- Hanson, A.A., and F.V. Juska. 1969. Turfgrass science. Agronomy Monograph No. 14, American Society of Agronomy, Madison, WI.
- Hanson, A.A., D.K. Barnes, and R.R. Hill, Jr. 1988.

 Alfalfa and alfalfa improvement. American Society of Agronomy, Madison, WI.
- Harper, J.L. 1977. Population biology of plants. Academic Press, New York, NY.
- Hayes, W.A. 1966. When to cut and graze grasses and legumes. Successful Farming Reprint, Meredith Publishing Company, Des Moines, IA.
- Hays, R.L., C. Summers, and W. Seitz. 1981. Estimating wildlife habitat variables. USDI Fish and Wildlife Service, FWS/OBS–81/47.
- Heady, H.F. 1973. Structure and function of climax. *In* D.N. Hyder (ed.) Arid Shrublands, Proc. Third Workshop U.S./Australia Rangelands Panel. Soc. Range Mgt. Denver, CO.
- Heinrichs, D.H. 1970. Flooding tolerance of legumes. Canadian Journal of Plant Science 50:435–438.
- Hennessy, J.T., B. Kies, R.P. Gibbens, and J.M.
 Tromble. 1986. Soil sorting by 45 years of wind
 erosion on a southern New Mexico range. Soil
 Science Society of America Journal 50: 391–394.
- Hennessy, J.T., R.P. Gibbens, J.M. Tromble, and M. Cordenas. 1983. Vegetation changes from 1935 to 1980 in mesquite dunelands and former grasslands of southern New Mexico. Journal of Range Management 36:370–374.
- Heppner, M.B. 1961. No summer dormancy. The Farm Quarterly 16(2):60–61, 107–108, 110, 112.
- Herrick, J. E., W.G. Whitford, A.G. de Soyza, J.W. Van Zee, K.M. Havstad, C.A. Seybold, and M. Walton. In Press. Soil aggregate stability kit for fieldbased soil quality and rangeland health evaluations. CATENA.

- Hester, J.W., T.L. Thurow, and C.A. Taylor, Jr. 1997. Hydrologic characteristics of vegetation types as affected by prescribed burning. Journal of Range Management 50:199–204.
- Hodgson, J. 1990. Grazing management: Science into practice. Longman Scientific and Technical, New York, NY.
- Hormay, A.L. 1970. Principles of rest-rotation grazing and multiple-use land management. USDA, Forest Service Training Text-4(2200), 25 pp.
- Hormay, A.L., and M.W. Talbot. 1961. Rest-rotation grazing—A new management system for perennial bunchgrass ranges. USDA, Forest Service Production Research Report No. 15, 43 pp.
- Hoveland, C.S. 1994. Alfalfa grazing management for yield, quality, and persistence. *In* National Alfalfa Grazing Conference Proceedings, Certified Alfalfa Seed Council, Davis, CA.
- Hrivnak, D. (compiler). 1995. Fee hunting and fishing on private land. U.S. Department of Agriculture, National Agricultural Library, Rural Information Center, Beltsville, MD, 18 pp.
- Hudson, N. 1993. Field measurement of soil erosion and runoff. Food and Agriculture Organization of the United Nations (FAO), Rome, Italy.
- Hughes, H.A. 1980. Conservation farming. Deere and Co., Moline, IL.
- Hughes, H.A. 1982. Crop chemicals. Deere and Co., Moline, IL.
- Hughes, H.D., D.S. Metcalfe, and I.J. Johnson. 1957. Crop production. Macmillan Publ. Co., New York, NY.
- Humphrey, R.R. 1945. Some fundamentals of the classification of range condition. J. Forestry 43:646–647.
- Humphrey, R.R. 1958. The desert grassland, a history of vegetation change and an analysis of causes. Bot. Rev. 24:193–252.

- Hunsaker, C.T., D.E. Carpenter, and J.J. Messer. 1990. Ecological indicators for regional monitoring. Bulletin of the Ecological Society of America 71 (3):165–172.
- Hyder, D.N. 1972. Defoliation in relation to vegetative growth. *In* Biology and Utilization of Grasses, Academic Press, New York, NY.
- Interagency Technical Reference. 1996. Utilization studies and residual measurements.
- Interagency Technical Reference. 1996. Sampling vegetation attributes.
- Ishler, V.A., et al. 1991. Harvesting and utilizing silage. Penn State University Circular 396. University Park, PA.
- Jarrett, J.A. 1994. Dry cow ration was too high in potassium. Hoard's Dairyman 139(12):507.
- Jarrett, J.A. 1996. What we're learning about growing grasses for dry cows. Hoard's Dairyman 141(6):224.
- Jewiss, O.R. 1972. Tillering in grasses—Its significance and control. Journal of the British Grassland Society 27:65–82.
- Johansen, J.R. 1993. Cryptogamic crusts of semiarid and arid lands of North America. Journal of Phycology 28:139–147.
- Johnson, C.W., and N.E. Gordon. 1988. Runoff and erosion from rainfall simulator plots on sagebrush rangelands. Transactions of the ASAE 31(2):421–427.
- Jurgens, M.H. 1988. Animal feeding and nutrition. 6th ed., Kendall/Hunt Publishing Co., Dubuque, IA.
- Kabata-Pendias, A., and H. Pendias. 1984. Trace elements in soils and plants. CRC Press, Boca Raton, FL.
- Karlen, D.L., G.E. Varvel, D.G. Bullock, and R.M. Cruse. 1994. Crop rotations for the 21st Century. *In* Advances in Agronomy, Vol. 53, Academic Press, San Diego, CA.

- Karr, J. R. 1992. Ecological integrity: Protecting Earth's life support systems. *In* R. Costanza, B.G.
 Norton, and B.D. Haskell (eds.), Ecosystem
 Health-New Goals for Environmental Management, Island Press, Washington, DC, pp. 223–238.
- Kilgore, E. 1989. Ranch vacations. John Muir Publications, Santa Fe, NM, 344 pp.
- Kilmer, V.J. 1982. Handbook of soils and climate in agriculture. CRC Press, Boca Raton, FL.
- Knight, W.E. 1959. The effect of thickness of stand on distribution of yield and seed production of crimson clover. Mississippi Agricultural Experiment Station Bulletin 583. Mississippi State University.
- Koss, W.J., J.R. Owenby, P.M. Steurer, and D.S. Ezell. 1988. Freeze/frost data. Climatography of the U.S. No. 20, Sup. No. 1, Natl. Climatic Data Ctr., Asheville, NC.
- Krausman, P.R. (ed.) 1996. Rangeland wildlife. Society for Range Management, Denver, CO, 440 pp.
- Lackey, R.T. 1998. Ecosystem management: paradigms and prattle, people and prizes. Renewable Resources Journal 16:8–13.
- Langer, R.H.M. 1994. Pastures, their ecology and management. Oxford University Press, Auckland 3, New Zealand.
- Lathwell, D.J., and M. Peech. 1973. Interpretation of chemical soil tests. Cornell Experiment Station Bulletin 995, Cornell University, Ithaca, NY.
- Lauenroth, W.K., and W.A. Laycock (eds.). 1989. Secondary succession and the evaluation of rangeland condition. Westview Special Studies in Agriculture Science and Policy, Westview Press, 155 pp.
- Laycock, W.A. 1991. Stable states and thresholds of range condition on North American rangelands: A viewpoint. J. Range Mgt., Vol. 44, No. 5, pp. 427–433.
- Levitt, J. 1956. The hardiness of plants. Agron. Mono. No. 6, Academic Press, Inc., New York, NY.

- Luthin, J.N. 1957. Drainage of agricultural lands. Agronomy Monograph 7, American Society of Agronomy, Madison, WI.
- Maas, E.V. 1986. Salt tolerance of plants. Applied Agric. Research 1(1):12–25.
- Marten, G.C., A.G. Matches, R.F. Barnes, R.W. Brougham, R.J. Clements, and G.W. Sheath. 1989. Persistence in forage legumes. American Society of Agronomy, Madison, WI.
- Martin, J.H. and W.H. Leonard. 1949. Principles of field crop production. Macmillan Publ. Co., New York, NY.
- Matches, A.G. 1973. Anti-quality components of forages. Crop Science Society of America Special Pub. No. 4, Madison, WI.
- Mays, D.A. 1974. Forage fertilization. American Society of Agronomy, Madison, WI.
- McClelland, S.D., D.A. Cleaves, T.E. Bedell, and W.A. Mukatis. 1989. Managing a fee-recreation enterprise on private lands. Oregon State University Extension Service, Extension Circular 1277, 17 pp.
- McIntyre, D.S. 1958. Soil splash and the formation of surface crusts by raindrop impact. Soil Science 85:261-266.
- McKee, G.W., J.V. Raelson, W.R. Berti, and R.A. Peiffer. 1982. Tolerance of eighty plant species to low ph, aluminum, and low fertility. Penn State Univ. Agron. Ser. No. 69, University Park, PA.
- Meeker, D.O., Jr., and D.L. Merkel. 1984. Climax theories and a recommendation for vegetation classification: A viewpoint. J. Range Mgt., Vol. 37, No. 5, pp. 427-430.
- Meister Publishing Company. 1993. Plant health guide. 1st ed., Willoughby, OH.
- Meister Publishing Company. 1995. Insect control guide. Vol. 8, Willoughby, OH.

- Metting, B. 1991. Biological surface features of semiarid lands and deserts. *In* Skujins, J. (ed.), Semiarid lands and deserts: Soil resource and reclamation. Marcel Dekkler, New York, NY, pp. 257-293.
- Meyer, B.S., and D.B. Anderson. 1954. Plant physiology. D. Van Nostrand Company, Inc., New York, NY, pp. 618–622.
- Michels, K., D.V. Armbrust, B.E. Allison, and M.V.K. Sivakumar. 1995. Wind and windblown sand damage to pearl millet. Agronomy Journal 87:620-626.
- Millar, C.E., and L.M. Turk. 1954. Fundamentals of soil science. 2nd ed., John Wiley and Sons, New York, NY.
- Morgan, R.P.C. 1986. Soil erosion and conservation. D.A. Davidson, (ed.), Longman Scientific and Technical, Wiley and Sons Press, New York, NY.
- Morrison, F.B. 1959. Feeds and feeding. 23 Ed. The Morrison Publ. Co., Clinton, IA.
- Moser, L.E., D.R. Buxton, and M.D. Casler. 1996. Coolseason forage grasses. Agronomy Monograph No. 34, American Society of Agronomy, Madison, WI.
- Murphy, B. 1991. Greener pastures on your side of the fence. 2nd ed., Arriba Publishing, Colchester, VT.
- National Academy of Sciences. 1975. Nutrient requirements of sheep. Publ. No. 5, Washington, DC.
- National Academy of Sciences. 1976. Nutrient requirements of beef cattle. Publ. No. 4, Washington, DC.
- National Oceanic and Atmospheric Administration, National Climatic Data Center. 1997. U.S. national 1961–1990 climate normals. Climatography of the U. S. No. 20, Sta. Climatol. Summ., Asheville, NC.
- National Research Council. 1988. Nutrient requirements for dairy cattle. 6th rev. ed., National Academy Press, Washington, DC.

- Nevada Range Studies Task Group. 1984. Nevada rangeland monitoring handbook. U.S. Gov. Printing Office:1985-587-052/20001.
- Olson, B.E. 1999. Impacts of noxious weeds on ecological and economic systems. *In* Sheley, R.L. and J.K. Petroff (eds.), Biology and management of noxious rangeland weeds. Oregon State University Press, Corvallis, OR, pp. 4–18.
- Oregon State University. 1987. Developing profitable resource-based recreation on private land. Proceedings 1987 Pacific Northwest Range Management Short Course, Corvallis, OR, 177 pp.
- Pellant, M. 1996. Use of indicators to qualitatively assess rangeland health. N.E. West (ed.) Rangelands in a Sustainable Biosphere, Proc. 5th International Rangeland Congress. Society for Range Management, Denver, CO, pp. 434–435.
- Pellant, M., P. Shaver, D. Pyke, and J. Herrick. In Press. Interpreting indicators of rangeland health, Ver. 3.0. USDI Bureau of Land Management. Denver, CO.
- Perfect, E., R.D. Miller, and B. Burton. 1988. Frost upheaval of overwintering plants: a quantitative field study of the displacement process. Arctic and Alpine Research 20:70–75.
- Peterson, M.L., and R.M. Hagan. 1952. Irrigation principles and practices for pastures. *In* Sixth International Grassland Congress Proceedings, Vol. 1:397–403.
- Pierson, F.B., W.H. Blackburn, S.S. Van Vactor, and J.C. Wood. 1994. Partitioning small scale spatial variability of runoff and erosion on sagebrush rangeland. Water Resources Bull. 30:1081–1089.
- Pimm, S.L. 1984. The complexity and stability of ecosystems. Nature 307:321–326.
- Piper, C.V., and L.H. Bailey. 1941. Forage plants and their culture. Macmillan Publ. Co., New York, NY.
- Pitt, R.E. 1990. Silage and hay preservation. Northeast Regional Agricultural Engineering Service, Ithaca, NY.

- Pomeroy, L.R., E.C. Hargrove, and J.J. Alberts. 1988. The ecosystem perspective. *In* Concepts of Ecosystem Ecology, Ecological Studies, Vol. 67, Springer-Verlag, New York, NY.
- Portz, H.L. 1967. Frost heaving of soil and plants. Incidence of frost heaving of forage plants and meteorological relationships. Agronomy Journal 59:341–344, Am. Soc. of Agronomy, Madison, WI.
- Prairie Agricultural Machinery Institute. 1996. The stockmans guide to range livestock watering from surface water sources. Prairie Agricultural Machinery Institute, Portage la Prairie, Manitoba, Canada.
- Pye, K. 1987. Aeolian dust and dust deposits. Academic Press. San Diego, CA.
- Pyenson, L.L. 1951. Elements of plant protection. John Wiley and Sons, New York, NY.
- Pyke, D.A. 1995. Population diversity with special reference to rangeland plants. *In N.E.* West, (ed.), Biodiversity of rangelands. Natural Resources and Environmental Issues, Vol. IV, College of Natural Resources, Utah State University, Logan, UT, pp. 21–32.
- Quansah, C. 1985. The effect of soil type, slope, flow rate, and their interactions on detachment by overland flow with and without rain. *In* P.D. Jungerius (ed.), Soils and Geomorphology, Catena Supplement 6, Catena Verlag, Germany, pp 19–28.
- Rapport, D.J., C. Gaudet, J.R. Karr, J.S. Baron, C.
 Bohlen, W. Jackson, B. Jones, R.J. Naiman, B.
 Norton, and M.M. Pollock. 1998. Evaluating landscape health: Integrating societal goals and biophysical process. Journal of Environmental Management 53:1–15.
- Rayburn, E.B. 1987. Pasture management facts and figures for New York. Seneca Trail Resource Conservation and Development Council, Franklinville, NY.

- Reinhart, R. 1990. Alfalfa management/diagnostic guide. Pioneer Hi-Bred International, Des Moines, IA.
- Rhoades, E.D. 1964. Inundation tolerance of grasses in flooded areas. *In* Transactions of the ASAE 7:(2)164–166, 169, American Society of Agricultural Engineers, Saint Joseph, MI.
- Rhoades, J.D., and J. Loveday. 1990. Salinity in irrigated agriculture. *In* Agronomy Monograph No. 30, Irrigation of agricultural crops, B.A. Stewart and D.R. Nielsen (eds.), Amer. Soc. Agron., Madison, WI, pp. 1,091–1,131.
- Robinson, W.L., and E.G. Bolen. 1989. Wildlife ecology and management. Macmillan Publ. Co., New York, NY, 574 pp.
- Rollins, D. (ed). 1988. Recreation on rangelands: Promise, problems, projections. Society for Range Management, Symposia proceedings, February 23, 1988, Corpus Christi, TX, 82 pp.
- Ross, T. 1999. Mean number of days with precipitation .01 inch or more. Comparative Climatic Data Table, NOAA, Natl. Climatic Data Ctr., Asheville, NC.
- Ross, T. 1999. Cloudiness—mean number of days. Comparative Climatic Data Table, NOAA, Natl. Climatic Data Ctr., Asheville, NC.
- Ross, T. 1999. Average relative humidity (%). Comparative Climatic Data Table, NOAA, Natl. Climatic Data Ctr., Asheville, NC.
- Sanchez, P.A., W. Couto, and S.W. Buol. 1982. The fertility capability soil classification system: Interpretation, applicability, and modification. Geoderma 27:283–309.
- Scheaffer, C.C., R.D. Mathison, N.P. Martin, D.L. Rabas, H.J. Ford, and D.R. Swanson. 1993. Forage legumes: clovers, birdsfoot trefoil, cicer milkvetch, crownvetch, sainfoin, and alfalfa. Station Bulletin 597, Minnesota Agricultural Experiment Station, Saint Paul, MN.

- Semple, A.T., and T.E. Woodward. 1946. A pasture handbook. USDA Miscellaneous Publication 194, U.S. Gov. Printing Office, Washington, DC.
- Serotkin, N., ed. 1994. The Penn State agronomy guide, 1995-1996. Pennsylvania State University. University Park, PA.
- Shaw, B.T. 1952. Soil physical conditions and plant growth. Agronomy Monograph No. 2, Academic Press, New York, NY.
- Shiflet, T.N. 1973. Range sites and soils in the United States. *In* Proceedings of the Third Workshop of the United States/Australia Rangelands Panel. Tucson, AZ, March 26-April 5, pp. 23–33.
- Singer, M.J. 1991. Physical properties of arid region soils. *In* Skujins, J. (ed.), Semiarid lands and deserts: soil resource and reclamation, Marcel Dekkler, New York, NY, pp. 81–109.
- Singer, M.J., and D.N. Manns. 1987. Soils, an introduction. Macmillan Publ., New York, NY.
- Smith, D. 1975. Forage management in the north. 3rd Ed., Kendall/Hunt Publ. Co., Dubuque, IA.
- Smith, D.D., and W.H. Wischmeier. 1962. Rainfall erosion. Advances in Agronomy 14:109–148.
- Smith, E.L. 1988. Successional concepts in relation to range condition assessment. *In P.T. Tueller* (ed.), Vegetation Science Applications for Rangeland Analysis and Management, Kluwer Academic Publishers, Boston, MA, pp. 113–133.
- Smith, E. Lamar. 1999. The myth of range/watershed health. *In* Riparian and watershed management in the interior northwest: An interdisciplinary perspective. Oregon State University Extension Service Special Report 1001, Corvallis, OR, pp. 6–11.
- Snedecor, G.W., and W.G. Cochran. 1980. Statistical methods. Iowa State College Press, Ames, IA.
- Society for Range Management. 1989. A glossary of terms used in range management. Denver, CO, 20 p.

- Solbrig, O.T., E. Medina, and J.F. Silva. 1996. Biodiversity and savanna ecosystem processes: A global perspective. Springer, New York, NY.
- Sprague, M.A., and M.M. Hoover. 1963. Seedling management of grass-legume associations in the northeast. Northeast Regional Publication No. 42, New Jersey Agricultural Experiment Station, Rutgers, New Brunswick, NJ.
- Steel, R.G.D., and J.H. Torrie. 1980. Principles and procedures of statistics. McGraw-Hill Book Co., New York, NY.
- Steurer, P.M. 1999. Data documentation for TD 9641 daily normal growing degree units to selected base temperatures 1951–1980. National Climatic Data Center, Asheville, NC.
- Stoddard, L.A., A.D. Smith, and T.W. Box. 1975. Range management. McGraw-Hill Book Company.
- Stringham, T.K., W.C. Krueger, and P.L. Shaver. 2001. States, transitions, and thresholds: Further refinement for rangeland applications. Oregon Agric. Exp. Sta. Spec. Rep. 1024, Oregon State Univ., Corvalis.
- Sumner, M.E. 1993. Gypsum and acid soils: the world scene. *In* Advances in Agronomy, Vol. 51, D.L. Sparks, (ed.), Academic Press, Inc., New York, NY, pp. 1–32.
- Tanji, K.K. 1990. Agricultural salinity assessment and management. ASCE Manual No. 71, American Society of Civil Engineers, New York, NY.
- Task Group on Unity in Concepts and Terminology. 1995. New concepts for assessment of rangeland condition. Journal of Range Management 48:271–282.
- Taylor, N.L. 1985. Clover science and technology.American Society of Agronomy, Madison, WI.
- Thorne, D.W., and W.H. Bennett. 1952. Soil management for grasslands on irrigated salted soils. *In*Sixth International Grassland Congress Proceedings, Vol. 1:805–812.

- Thurow, T.L., W.H. Blackburn, and C.A. Taylor, Jr. 1986. Hydrologic characteristics of vegetation types as affected by livestock grazing systems, Edwards Plateau, Texas. Journal of Range Management 39:505–509.
- Thurow, T.L., W.H. Blackburn, and C.A. Taylor, Jr. 1988. Infiltration and interrill erosion responses to selected livestock grazing strategies, Edwards Plateau, Texas. Journal of Range Management 41:296–302.
- Thurow, T.L., W.H. Blackburn, and C.A. Taylor, Jr. 1988. Some vegetation responses to selected livestock grazing strategies, Edwards Plateau, Texas. Journal of Range Management 41:108–114.
- Tilman, D., and J.A. Downing. 1994. Biodiversity and stability in grasslands. Nature 367:363–367.
- Tilman, D., J. Knops, D. Wedin, P. Reich, M. Ritchie, and E. Siemann. 1997. The influence of functional diversity and composition on ecosystem processes. Science, Vol. 277:1300–1302
- Tisdale, S.L., W.L. Nelson, and J.D. Beaton. 1985. Soil fertility and fertilizers. 4th ed., Macmillan Publ. Co., New York, NY.
- Toma, M., M.E. Sumner, G. Weeks, and M. Saigusa. 1999. Long-term effects of gypsum on crop yield and subsoil chemical properties. Soil Sci. Soc. Amer. J. 63:891–895.
- Tongway, David. 1994. Rangeland soil condition assessment manual. CSIRO. Div. Wildlife and Ecology, Canberra.
- Undersander, D.J., B. Albert, P. Porter, and A. Crossley. 1991. Wisconsin pastures for profit: A hands-on guide to rotational grazing. A3529. University of Wisconsin-Extension, Madison, WI.
- Undersander, D.J., R.R. Smith, K. Kelling, J. Doll, G. Worf, J. Wedberg, J. Peters, P. Hoffman, and R. Shaver. 1990. Red clover: Establishment, management, and utilization. A3492, University of Wisconsin-Extension, Madison, WI.

- United States Department of Agriculture. 1942. Keeping livestock healthy. Yearbook of Agriculture, U.S. Gov. Printing Office, Washington, DC.
- United States Department of Agriculture. 1955. Water, the yearbook of agriculture. U.S. Gov. Printing Office, Washington, DC.
- United States Department of Agriculture. 1994. Agricultural statistics. U.S. Gov. Printing Office, Washington, DC.
- United States Department of Agriculture, Natural Resources Conservation Service. 1996. National soil survey handbook. Issue 4, U.S. Gov. Printing Office, Washington, DC.
- United States Department of Agriculture, Natural Resources Conservation Service. 1997. National forestry manual. Washington, DC.
- United States Department of Agriculture, Natural Resources Conservation Service. 1997. National range and pasture handbook. Washington, DC.
- United States Department of Agriculture, Natural Resources Conservation Service. 1998. Field office guide to climatic data. Natl. Water and Climate Ctr., Portland, OR.
- United States Department of Agriculture, Soil Conservation Service. 1976. National range handbook. Washington, DC.
- United States Department of Agriculture, Soil Conservation Service. 1981. Land resource regions and major land resource areas of the United States. Agricultural Handbook 296, United States Government Printing Office, Washington, DC.
- United States Department of Agriculture, Soil Conservation Service. 1994. Summary report, 1992 national resources inventory. Washington, DC.
- United States Department of Commerce, Economics and Statistics Administration and Bureau of the Census, and United States Department of the Interior, Fish and Wildlife Service. 1993. 1991 national survey of fishing, hunting, and wildlifeassociated recreation. Issued March 1993, 124 pp.

- United States Department of the Interior, Bureau of Land Management. 1973. Determination of erosion condition class. Form 7310-12, Washington DC.
- United States Department of the Interior, Bureau of Land Management. 1993. Riparian area management: Process for assessing proper functioning condition. Technical Reference 1737-9, Service Center, Denver, CO.
- United States Department of the Interior, Bureau of Land Management. 1996. Sampling vegetation attributes. National Applied Resource Science Center Report BLM/RS/ST-96/002+1730, 163 p.
- Vallentine, J.F. 1990. Grazing management. Academic Press, San Diego, CA.
- Wagner, R.E. 1989. History and development of site and condition criteria in the Bureau of Land Management. *In* W.K. Lauenroth and W.A. Laycock (eds.), Secondary Succession and the Evaluation of Rangeland Condition, Westview, Boulder, CO, pp. 35–48.
- Waldren, R.P., and A.D. Flowerday. 1982. Introductory crop science. Burgess Publ. Co., Minneapolis, MN, pp. 142–155.
- Waller, S.S., L.E. Moser, and P.E. Reece. 1985. Understanding grass growth: The key to profitable livestock production. Trabon Printing Company, Kansas City, MO.
- Waltman, W.J., E.J. Ciolkosz, M.J. Mausbach, M.D. Svoboda, D.A. Miller, and P.J. Kolb. 1997. Soil climate regimes of Pennsylvania. Penn State Agric. Exp. Sta. Bul. No. 873.
- Webb, D.W. 1994. Dairy science handbook. Dairy Science Department, University of Florida.
- West, N.E., K. McDaniel, E.L. Smith, P.T. Tueller, and S. Leonard. 1994. Monitoring and interpreting ecological integrity on arid and semi-arid lands of the Western United States. Report 37, New Mexico State University, New Mexico Range Improvement Task Force.

- Westoby, M., B. Walker, and I. Noy-Meir. 1989. Opportunistic management for rangelands not at equilibrium. J. Range Mgt. 42:266–274.
- Wheeler, W.A. 1950. Forage and pasture crops. D. Van Nostrand Company, New York, NY.
- White, J. 1979. The plant as a metapopulation. Annual Review of Ecology and Systematics 10:109–145.
- Whitford, W.G. 1988. Decomposition and nutrient cycling in disturbed arid ecosystems. *In* E.B. Allen (ed.), The reconstruction of disturbed arid lands, American Association for the Advancement of Science, Westview Press, Boulder, CO, pp. 136–161.
- Whitford, W.G. 1996. The importance of the biodiversity of soil biota in arid ecosystems. Biodiversity and Conservation 5:185–195.
- Whittaker, R.H. 1975. Communities and ecosystems, 2nd edition. Macmillan, New York, NY.
- Wicklum, D., and R.W. Davies. 1995. Ecosystem health and integrity. Canadian Journal of Botany 73:997–1000.
- Wiens, J.A. 1984. On understanding a non-equilibrium world: Myth and reality in community patterns and processes. *In* Ecological Communities: Conceptual Issues and the Evidence, Princeton University Press, Princeton, NJ.
- Wild, A. 1988. Russells soil conditions and plant growth. 11th ed., Longman Scientific and Technical, New York, NY.
- Wood, M.K., and W.H. Blackburn. 1984. Vegetation and soil responses to cattle grazing systems in the Texas Rolling Plains. Journal of Range Management 37:303–308.
- Workman, J.P. 1987. Range economics. Macmillan Publ. Co., NY. 217 pp.
- Worthen, E.L., and S.R. Aldrich. 1956. Farm soils, their fertilization and management,. 5th ed., John Wiley and Sons, New York, NY.