



EMBRAPA

EMPRESA BRASILEIRA DE PESQUISA AGROPECUÁRIA

VINCULADA AO MINISTÉRIO DA AGRICULTURA

# BIBLIOGRAFIA SOBRE ECOLOGIA DE PASTAGENS

BRASÍLIA, DF — 1981

**BIBLIOGRAFIA  
SOBRE ECOLOGIA  
DE PASTAGENS**

Empresa Brasileira de Pesquisa Agropecuária. Centro  
de Pesquisa Agropecuária do Trópico Ómido. Be  
lém, PA.

Bibliografia sobre ecologia de pastagens, por  
Mário Dantas e Nazira Leite Nassar. Brasília,  
EMBRAPA-DID, 1981.

p.

1. Pastagens - Ecologia - Bibliografia. I. Dan  
tas, Mário. II. Nassar, Nazira Leite. IV. Título.

CDD:636.08416  
CDU:636.084.22:016

EMBRAPA  
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BIBLIOGRAFIA SOBRE ECOLOGIA DE PASTAGENS

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Brasília  
1981

Pedidos desta bibliografia deverão ser feitos ao  
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Departamento de Informação e Documentação  
da EMBRAPA  
Edifício Venâncio 2.000 - 2º subsolo  
Caixa Postal, 1316  
70.330 - Brasília - DF.

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## A P R E S E N T A Ç Ã O

O Centro de Pesquisa Agropecuária do Trópico Úmido - CPATU publica a Bibliografia sobre Ecologia de Pastagens, assunto dos mais importantes à pecuária brasileira e particularmente para a regional.

Trata-se de um documento produzido através de pesquisa marcadamente laboriosa, contendo 659 referências bibliográficas e representando um dos trabalhos pioneiros no gênero sobre pastagens neste País.

Ressaltamos que esta bibliografia é composta de uma amplitude notável de áreas de conhecimento, envolvendo Fatores Físicos e Edáficos, Gramíneas, Leguminosas, Manejo, Pastagens Cultivadas, Pastagens Naturais, Produtividade Primária e Relação Animal Planta.

Com efeito, este trabalho vem atender a uma necessidade acentuadamente demandada pelos pesquisadores em Ecologia de Pastagens e deve ser considerado como o primeiro de uma série sobre o assunto.

Finalmente, queremos registrar o nosso agradecimento ao Pesquisador Mário Dantas e à Biblioteca Nazira Leite Nassar, do CPATU, pela valiosa contribuição prestada, através da elaboração deste trabalho.

Cristo Nazaré Barbosa do Nascimento  
Chefe do CPATU

## I N T R O D U Ç Ã O

A pesquisa bibliográfica é um ponto básico na elaboração de qualquer atividade de caráter científico. Reunir a bibliografia necessária é sempre um passo trabalhoso e difícil sobretudo quando não se dispõe de boas bibliotecas.

Assim, julgamos que seja muito válido todo o empenho no sentido de colecionar referências bibliográficas específicas que possam servir de base, desde a elaboração de um projeto até a publicação dos resultados de pesquisa. Com este objetivo, aqui apresentamos a bibliografia que conseguimos reunir em alguns meses de busca, visando ser úteis aos pesquisadores que estudam pastagens. Logicamente que não tivemos a pretensão de apresentar toda a bibliografia existente a respeito do assunto. Isto seria utópico.

Classificamos os assuntos em oito categorias, enquadrando os trabalhos em cada uma delas, conforme nos pareceu mais lógico pela leitura dos resumos. Há trabalhos que poderiam ser enquadrados em mais de um ítem, no entanto optamos apenas por aquele, a nosso ver, com maior expressão.

Esperamos estar prestando um serviço valioso aos nossos colegas pesquisadores, visando poupar-lhes tempo com o acesso à literatura nesta área de conhecimento.

FATORES FÍSICOS E EDÁFICOS

0001. ABEYAKOON, K.F. & PIGOTT, C.D. The inability of *Brachypodium sylvaticum* and other species to utilize apatite or organically bound phosphate in calcareous soils. New Phytol., Cambridge, 74(1): 147-54, 1975.
0002. AUCLAIR, A.N.D. Factors affecting tissue nutrient concentrations in a carex meadow. Oecologia, Berlin, 28(3):233-46, 1977.
0003. BAYLOR, J.E. Satisfying the nutritional requirements of grass - legume mixtures. In: MAYS, D.A. ed. Forage fertilization; Proceeding of a symposium, 19., Muscle Shoals, 1972. s.l., Crop Science Society of America, 1974. p.171-88.
0004. BEATON, J.D. & BERGER, J. Present and potential use of fertilizer for forage production in temperate zones. In: MAYS, D.A. ed. Forage fertilization; Proceeding of a symposium, 19., Muscle Shoals, 1972. s.l., Crop. Science Society of America, 1974. p.17-37.

0005. BILLORE, S.K. & MALL, L.P. Nutrient composition and inventory in a tropical grassland. Plant Soil, Hague, 45(2):509-20, 1976.
0006. BOUTING, A.H. & ELSTON, J. Water relations of crop and grass on chalk soil. Scient. Hort., Kent, 18:116-20, 1966.
0007. BRADSHAW, A.D.; LODGE, R.W.; JOWETT, D. & CHADWICK, M.J. Experimental investigation into the mineral nutrition of several grass species. I. Calcium. J. Ecol., Oxford, 46:749-57, 1958.
0008. BROWN, L.F. & TRLICA, M.J. Carbon dioxide exchange of blue grama swards as influenced by several ecological variables in the field. J. appl. Ecol., Oxford, 14:205-13, 1977.
0009. —————. & —————. Interacting effects of soil water, temperature and irradiance on  $\text{CO}_2$  exchange rates of two dominant grass of the shortgrass prairie. J. Appl. Ecol., Oxford, 14(1):197-204, 1977.

0010. BROWN, R.H. & ASHLEY, D.A. Fertilizer effects on photosynthesis, organic reserves, and regrowth mechanisms of forages. In: MAYS, D.A. ed. Forage fertilization; proceedings of a symposium, 19., Muscle Shoals, 1972. s.l., American Society of Agronomy, 1974. p.455-79.
0011. BUCHANAN, B.A. Ecological effects of weather modification, bridger range area Montana: relationships of soil, vegetation and microclimate. Dissert. Abst. Intern. B, Michigan 33(2):680, 1972.
0012. BUCKHOUSE, J.C. & COLTHARP, G.B. Soil moisture response to several levels of foliage removal on two Utah ranges. J. Range Manage., Baltimore, 29(4):313-5, 1976.
0013. \_\_\_\_\_. & GIFFORD, G.F. Water quality implications of cattle grazing on a semiarid watershed in southeastern Utah. J. Range Manage., Baltimore, 29(2):109-13, 1976.
0014. CASSEL, D.K. Alfalfa growth on disturbed and undisturbed soil cores. Agron J., Washington, 66(5):709-11, 1974.

0015. CHARLEY, J.L. & WEST, N.E. Plant induced soil chemical patterns in some shrub - dominated semi-desert ecosystems of Utah. J. Ecol., Oxford, 63(3):945-63, 1975.
0016. CLARK, F.E. & PAUL, E.A. The microflora of grasslands. Advan. Agron., New York, 22:375-435, 1970.
0017. COLE, C.V.; INNIS, G.S. & STEWART, J.W.B. Simulation of phosphorus cycling in semiarid grasslands. Ecology, Durham, 58(1):1-15, 1977.
0018. CUADRADO, S.; BLANCO, A. & BUI HUU TRI. Étude de la granulation d'un sol sableux en relation avec les espèces fourragères. Ann. Agron., Paris, 25(4):587-606, 1974.
0019. DAVIES, M.S. & SNAYDON, R.W. Physiological differences among populations of *Anthoxanthum odoratum* L. collected from the park grass experiment, Rothamsted. III. Response to phosphate. J. Appl. Ecol., Oxford, 8(2):699-707, 1974.

0020. DAY, A.D.; LUDEKE, K.E. & TUCKER, T.C. Influence of soil materials in copper mine wastes on the growth and quality of barley grain. J. Environ. Qual., Madison, 6(2):179-81, 1977.
0021. DE-POLLI, H.; MATSUI, E.; DOBEREINER, J. & SALATI, E. Confirmation of nitrogen fixation in two tropical grasses by  $^{15}\text{N}_2$  incorporation. Soil Biol. Biochem., Oxford, 9(2):119-23, 1977.
0022. DWIVEDI, R.S. Ecology of soil fungi of some grasslands of Varanasi. II. Distribution of soil mycoflora. Trop. Ecol., Varanasi, 7:84-99, 1966.
0023. EL-KAROURI, M.O.H. & GOODERHAM, P. T. The effect of soil physical conditions and nitrogen fertilizer on the yield of Italian ryegrass. J. Agric. Sci., Cambridge, 88(3):743-51, 1977.
0024. ENDREDI, L. & HARVATH, L. Organic matter production and photosynthetic energy utilization of a plant association in loess grassland. Acta Bot. Acad. Sci. Hung., Budapest, 22(1-2):39-49, 1976.

0025. FITTER, A.H. Effects of nutrient supply and competition from other species on root growth of *Lolium perene* in soil. Plant Soil, Hague, 45(1): 177-89, 1976.
0026. FITZPATRICK, E.A. & NIX, H.A. The climatic factor in Australian grassland ecology. In: MOORE, R. M. ed. Australian grasslands. s.l., Australian National University, 1970. p.3-26.
0027. FIÜHLER, H.; ARDAKANI, M.S.; SZUSZKIEWICZ, T.E. & STOLZY, L.H. Field-measured water uptake of sudan - grass roots as affected by fertilization. Agron. J., Washington, 69(2):269-74, 1977.
0028. FRIBOURG, H.A. Fertilization of summer annual grasses and silage crops. In: MAYS, D.A. ed. Forage fertilization; Proceedings of a symposium, 19. Muscle Shoals, 1972. s.l., Crop. Science Society of America, 1974. p. 189-212.

0029. FUENTES, S.C. Ecological survey of soils and pastures of Central and W. Spain. Agricultura, Madrid, 42:497; 543-52, 1973.
0030. ———. Soils and pastures of Central and W. Spain. Contribution to the study of their ecology. Agricultura, Madrid, 43(507):487-91, 1974.
0031. GRIFFITH, W.K. Satisfying the nutritional requirements of established legumes. In: MAYS, D.A. ed. Forage fertilization; proceedings of a symposium, 19, Muscle Shoals, 1972. s.l., Crop Science Society of America, 1974. p. 147-69.
0032. GRIME, J.P. & CURTIS, A.V. The interaction of drought and mineral nutrient stress in calcareous grassland. J. Ecol., Oxford, 64(3):975-88, Nov. 1976.
0033. HAWES, D.T. & DECKER, A.M. Healing potential of creeping bentgrass as affected by nitrogen and soil temperature. Agron. J., Washington, 69(2):212-4, 1977.

0034. HAYASHI, I. & NUMATA, M. Viable buried seed populations in the Miscanthus and Zoysia type grass lands in Japan-ecological studies on the buried-seed population in the soil related to plant succession VI. Jap. J. Ecol., 20:243-52, 1971.
0035. HEBBLETHWAITE, P.D. Irrigation and nitrogen studies in S. 23 ryegrass grown for seed. I. Growth, development, seed yield components and seed yield. J. Agric. Sci., Cambridge, 88(3):605-14, 1977.
0036. —————. & McGOWAN, M. Irrigation and nitrogen studies in S. 23 ryegrass grown for seed. II. Crop transpiration and Soil - water status. J. Agric. Sci., Cambridge, 88(3):615-24, 1977.
0037. HOVELAND, C.S.; FOUTCH, H.W. & BUCHANAN, G.A. Response of phalaris genotypes and other cool - season grasses to temperature. Agron. J., Washington, 66(5):686-90, 1974.

0038. HOVIN, A.W.; BERG, C.C.; BASHAW, E.C.; BUCKNER, R.C.; DEWEY, D.R.; DUNN, G.M.; HOVELAND, C.S.; RINCKER, C.M. & WOOD, G.M. Effects of geographic origin and seed production environments on apomixis in kentucky bluegrass. Crop Sci., Madison, 16(5):635-8, 1976.
0039. INFLUENCIA do clima e da qualidade da forragem sobre o consumo. In: INSTITUTO DE ZOOTECNIA, São Paulo. Fundamentos de manejo de pastagens. São Paulo, Secretaria de Agricultura. Coordenação de Pesquisa Agropecuária, 1970. p.140-
0040. JACOBS, L.W.; CHOU, S. F. & TIEDJE, J.M. Fate of polybrominated biphenyls (PBB'S) in soils. Persistence and plant uptake. J. Agric. Food Chem., Easton, 24(6):1198-201, 1976.
0041. JOHNSTON, W.J. Cold tolerance evaluation of several centipedegrass selections. Agron. J., Washington, 69(1):100-3, 1977.

0042. JONES, K. Acetylene reduction by blue - green alga in sub-tropical grassland. New Phytol, Cambridge, 78(2):421-6, 1977.
0043. ———. Acetylene reduction by mats of blue-green algae in sub-tropical grassland; possible contribution by other micro-organisms. New Phytol., Cambridge, 78(2):437-40, 1977.
0044. ———. The effects of light intensity on acetylene reduction by blue - green algal mats in sub-tropical grassland. New Phytol., Cambridge, 78(2):427-31, 1977.
0045. ———. The effects of temperature on acetylene reduction by mats of blue-green algae in sub-tropical grassland. New Phytol., Cambridge, 78(2):433-6, 1977.
0046. JONES, M.B. Fertilization of annual grasslands of California and Oregon. In: MAYS, D.A. ed. Forage fertilization; Proceeding of a symposium, 19., Muscle Shoals, 1972. s.l., Crop Science Society of America, 1974. p. 255-75,

0047. KLEINER, E.F. & HARPER, K.T. Occurrence of four major perennial grasses in relation to edaphic factors in a pristine community. J. Range Manage., Baltimore, 30(4):286-9. July, 1977.
0048. KOCH, B.L. & OYA, J. Non-symbiotic nitrogen fixation in some Hawaiian pasture soils. Soil Biol. Biochem., Oxford. 6(6):363-7, 1974.
0049. KROTH, E.M. & MATTAS, R. Soil test values of several soils under forage crops. Commun. Soil Sci. Plant Anal., New York, 7(8):713-25, 1976.
0050. \_\_\_\_\_.; MEINKE, L. & DUDLEY, R. F. Establishing reed canarygrass on low fertility soil. Agron. J. Washington, 68(5):791-4, 1976.
0051. LAL, R.; WILSON, G.F. & OKIGBO, B.N. No-till farming after various grasses and leguminous cover crops in tropical alfisol. I. Crop performance. Field Crop Res., 1(1):71-84, 1978.

0052. LEATH, K.T.; SHENK, J.S. & BARNES, R.F. Relation of foliar disease to quality of alfalfa forage. Agron. J., Washington, 66(5):675-7, 1974.
0053. MARTEL, Y.A. & PAUL, E.A. Effects of cultivation on the organic matter of grassland soils as determined by fractionation and radiocarbon dating. Can. J. Soil Sci., Ottawa, 54(4):419-26, 1974.
0054. McCARTY, M.K. & MAZURAK, A.P. Soil compaction in eastern Nebraska after 25 years of cattle grazing management and weed control. J. Range Manage., Baltimore, 29(5):384-6, 1976.
0055. McCOWN, R.L.; MURTHA, G.G. & FIELD, J.B.F. Pattern of distribution of townsville stylo, annual grasses and perennial grasses in relation to soil variation. J. appl. Ecol. Oxford, 14:621-30, 1977.
0056. McGINNIES, W.J.; OSBORN, L.W. & BERG, W.A. Plant-soil-microsite relationships on a salt-grass meadow. J. Range Manage., Baltimore, 29(5):395-400, 1976.

0057. MITCHELL, K.J. Growth of pasture species under controlled environment. I. Growth at various levels of constant temperature. N.Z.J. Sci Technol. Wellington, 38A:203-16, 1956.
0058. MUEGGLER, W.F. Weather variations on a mountain grassland in southwestern Montana. Washington. Forest Service Research, 1971. 25p. (U.S. Forest Serv. Res. Pap. Int., 99).
0059. NELSON, S.H. Effects of inorganic and organic nitrogen applied the year previous on early green color return of Kentucky bluegrass. Can. J. Plant Sci., Ottawa, 57(1):155-8, 1977.
0060. NOWAKOWSKI, T.Z.; MATTINGLY, G.E.G. & LAZARUS, W. Effects of nitrogen and phosphorus fertilisers on yield and on inorganic and organic composition of Italian ryegrass grown on phosphorus-deficient soil. J. Sci. Food Agric., London, 28(6):491-500, 1977.

0061. OLLERENSHAW, J.H.; STEWART, W.S.; GALLIMORE, J. & BAKER, R.H. Low temperature growth in grasses from northern latitudes. J. Agric. Sci., London, 87(1):237-9, 1976.
0062. PALAZZO, A.J. & DUELL, R.W. Responses of grasses and legumes to soil pH. Agron. J., Washington, 66(5):678-82, 1974.
0063. PARRONDO, R.T.; GOSSELINK, J.G. & HOPKINSON, C.S. Effects of salinity and drainage of the growth of three salt marsh grasses. Botan. Gaz., Chicago, 139(1):102-7, 1978.
0064. PAWSON, E. & SAUNDERS, W.M.H. Soil testing for pasture. N.Z.J. Agric., Wellington, 134(3): 43-5, 1977.
0065. POWER, J.F. Nitrogen transformations in the grassland ecosystems. Colorado, State University. Range Science Department, 1978. p.195-204. (Science Series, 26).

0066. RABOTNOV, T.A. The influence of fertilizers on the plant communities of mesophytic grasslands. Handb. Veg. Sci., 13:459-97, 1977.
0067. RASMUSSEN, J.L. Abiotic factors in grassland eco system analysis and function. In: FRENCH, N.R. ed. Preliminary analysis of structure and function of grasslands. Fort Collins, Colorado State Universite, 1971. p.11-34. (Range Sci. Dep. Sci. Ser., 10).
0068. REDMANN, R.E. Plant-water relationships in a mixed grassland. Oecologia, Berlin, 23(4):283-95, 1976.
0069. REID, D. & STRACHAN, N.H. The effects of a wide range of nitrogen rates on some chemical constituents of the herbage from perennial ryegrass swards with and without white clover. J. Agric. Sci., Cambridge, 83(3):393-401, 1974.

0070. REID, R.L. & JUNG, G.A. Effects of elements other than nitrogen on the nutritive value of forage. In: MAYS, D.A. ed. Forage fertilization; Proceeding of a symposium, 19., Muscle Shoals, 1972. s.l., Crop Science Society of America, 1974. p.395-435.
0071. ROBERTS, S. & WEAVER, W.H. Magnesium accumulation and mineral balance in sudangrass as influenced by potassium, calcium and sodium. Common. Soil Sci. Plant Anal., New York, 5(4):303-12, 1974.
0072. ROSS, D.J. Distribution of invertase and amylase activities in pasture topsoil fractions isolated by ultrasonic dispersion in nemagon and a surfactant. Soil Biol. Biochem., Oxford, 8(6): 485-90, 1976.
0073. RYCHNOVSKA, M. Transpiration in wet meadows and some other types of grassland. Folia geobot. Phytotaxon., Praha, 11(3):427-32, 1976.

0074. SHEEHY, J.E. & CHAPAS, L.C. The measurement and distribution of irradiance in clear and overcast conditions in four temperature forage grass canopies. J. Appl. Ecol., Oxford, 13(3): 831-840, Dec. 1976.
0075. SINCLAIR, A.G.; HANNAGAN, R.B. & RISK, W.H. Evaluation of the acetylene-reduction assay of nitrogen fixation in pasture using small soil-core samples, N.Z.J. Agric. Res., Wellington, 19(4):451-8, 1976.
0076. STUBBENDIECK, J. & McCULLY, W.G. Effect of temperature and photoperiod on germination and survival of sand bluestem. J. Range Manage., Baltimore, 29(3):206-8, 1976.
0077. TEITZEL, J.K. & BRUCE, P.C. Fertility studies of pasture soils in the wet tropical coast of Queensland. IV. Soils derived from metamorphic rocks. Austr. J. Exp. Agric. Anim. Husb., Melbourne, 12(56):281-7, 1972.

0078. TESAR, M.B. Use of anhydrous ammonia and fluid fertilizers on grass. In: MAYS, D.A. ed. Forage fertilization; proceedings of a symposium, 19, Muscle Shoals, 1972. s.l., American Society of Agronomy, 1974, p.539-58.
0079. TJEPKEMA, J.D. & BURRIS, R.H. Nitrogenase activity associated with some Wisconsin prairie grasses. Plant Soil, Hague, 45(1):81-94, 1976.
0080. TORSSELL, B.W.R. Drought resistance effects on species composition of an annual pasture in a dry monsoonal climate. J. Appl. Ecol., Oxford, 13(3):943-53, Dec. 1976.
0081. TROMBLE, J.M.; RENARD, K.G. & THATCHER, A.P. Infiltration for three rangeland soil-vegetation complexes. J. Range Mange, Baltimore, 27(4): 318-21, 1974.
0082. VICENTE-CHANDLER, J. Fertilization of humid tropical grasslands: In: MAYS, D.A. ed. Forage fertilization; Proceeding of a symposium, 19., Muscle Shoals, 1972. s.l., Crop Science Society of America, 1974. p.277-300.

0083. WELLS, T.C.E.; SHEAIL, J.; BALL, D.F. & WARD, L.K.  
Ecological studies on the porton ranges; relationships between vegetation. Soil and land-use history. J. Ecol., Oxford, 64(2):589-626, 1976.
0084. WILKINS, C. The distribution of Mn, Fe, Cu, and Zn in topsoils and herbage of north west Pembro~~heshire~~. J. Agric. Sci., Cambridge, 92(1): 61-8, 1979.
0085. WRIGHT, R.G. & VAN DYNE, G.M. Comparative analytical studies of site factor equations. In: INTERNATIONAL SYMPOSIUM ON STAT ECOLOGY, New Haven, 1969. v.3. p.59-105.
0086. WYCHOFF, J.W. Effects of soil texture on species diversity in an arid grassland of eastern great Basin. Great Basin Nat., Provo, 33(3):163-8, Sept. 1973.
0087. YAMANE, I.; Soil-plant relationships in Kawatabi grassland. Rep. Inst. Agric. Res. Tohoku Univ. 24:43-57, Feb. 1973.

0088. ABD-EL-KADDOUS, F.G. Effect of temporary rise of saline water table on dry matter yield of oats (*Avena byzantina*). Aust. J. Exp. Agric. Anim. Husb., Melbourne, 14(71):811-4, 1974.
0089. ACOCKS, J.P.H. The distribution of certain ecologically important grasses in south Africa. Mitteil. Bot. Staatssm Munchen, 10:149-60, 1971.
0090. ARES, J. Dynamics of the root system of blue grama. J. Range Manage., Baltimore, 29(3):208-13, 1976.
0091. —————. & SINGH, J.S. A model of the root biomass dynamics of a shortgrass prairie dominated by blue grama (*Bouteloua gracilis*). J. appl. Ecol., Oxford, 11:727-43, 1974.
0092. BAILEY, A.W. Grass woody plant relationships. Can. J. Plant Sci., Ottawa, 52(3):671-6, july, 1973.

0093. BAKER, B.S. & JUNG, G.A. Effect of environmental conditions on the growth of four perennial grasses. Crop. Sci., Madison, 10:376-8, 1970.
0094. BEWLEY, R.J.F. The effects of zinc, lead and cadmium pollution on the leaf surface microflora of *Lolium perenne* L. J. Genet. Microbiol., London, 110(2):247-54, 1979.
0095. BOKHARI, U.G. Allelopathy among prairie grasses and its possible ecological significance. Ann. Bot., London, 42(177).127-36, 1978.
0096. BOURREIL, P. & GILLET, H. Synthesis of knowledge and new research on the amphitropical African grass. *Aristida rhiniochloa*. Mitteil. Bot. Staatssm. Munchen, 10:309-40, 1971.
0097. BRANDS, L.E. & COOK, B.G. Whittet kikuyu in the Gympie district. Queensl. Agric. J., Brisbane, 102(5):429-32, 1976.

0098. BROWN, W.E.; SPIERS, J.M. & THURMAN, C.W. Performance of five warm-season perennial grasses grown in southern Mississippi. Agron. J. Washington, 68(5):821-3, 1976.
0099. CANODE, C.L.; HIEBERT, A.J.; RUSSEL, T.S. & LAW, A.G. Sampling technique for estimation of root production of Kentucky bluegrass. Crop. Sci., Madison, 17(1):28-30, 1977.
0100. CHOUDHURI, G.N. & VARSHNEY, S. P. Distribution pattern and interactions among cohabiting species in the grasslands of varanasi. I. *Dichanthium annulatum* Stapf. and *Sporobolus diander* Beauv. Int. J. Ecol. Environ. Sci., Jaipur, 2(1):27-32, Apr. 1976.
0101. CLARK, F.E. & CAMPION, M. Distribution of nitrogen in root materials of blue grama. J. Range Manage., Baltimore, 29(3):256-8, 1976.

0102. CLINE, J.F.; URESK, D.W. & RICKARD, W.H. Comparison of soil water used by a sagebrush-bunchgrass and a cheatgrass community. J. Range Manage., Baltimore, 30(3):199-201, May, 1977.
0103. CONANT, S. & RISER, P.G. Canopy structure of a tall-grass prairie. J. Range Manage., Baltimore, 27(4):313-8, 1974.
0104. COOPER, J.P. Climatic variation in forage grasses. I. Leaf development in climatic races of *Lolium* and *Dactylis*. J. appl. Ecol., Oxford, 1:45-61, 1964.
0105. —————. & McWILLIAM, J.R. Climatic variation in forage grasses. II. Germination, flowering and leaf development in Mediterranean populations of *Phalaris tuberosa*. J. appl. Ecol., Oxford, 3:191-212, 1966.

0106. CUEVAS, A. & VERDUZCO, O. Estudio de potencial forrajero de las gramíneas nativas Panicoïdes y Eragrostoides en el área este de la Sierra Madre Oriental en Nuevo León, en relación con algunos factores del medio ambiente. Nuevo León, Instituto Tecnológico de Monterrey, 1977. p.71-2. (Informe de Investigación, 1975-1976, n.15).
0107. CUMMINS, D.E. & SUDWEEKS, E.M. In vivo performance of bloom and bloomless sorghum forage. Agron. J., Washington, 68(5):735-7, 1976.
0108. DUMAS, Y. Elements on ecology of Pangola grass - and (*Digitaria decumbens* Stent.) in various environments of French West Indies. Agron. Trop., Paris, 28(9):819-45, Sept. 1973.
0109. ———; SALETTE, J.-E. & SOBRESKY, O. Elements of the ecology of pangola grass (*Digitaria decumbens*. Stent.) in various environments of the French West Indies. Agron. Trop., Paris, 28(9):819-45, 1973.

0110. EDYE, L.A. & MILES, J.F. A comparison of sixty  
Panicum introductions in south-eastern Queensland.  
Trop. Grassl., Brisbane, 10(2):79-88,  
1976.
0111. EVANS, R.A.; KAY, B.L. & YOUNG, J.A. Influence of  
date of planting on emergence of cultivars of  
*Trifolium hirtum* All. and *T. subterraneum* L. J. Range Manage., Baltimore, 29(4):333-7, 1976.
0112. FARRAGHER, M.A. Poaceae-Irish members. VI. Morphology and ecological notes. Sci. Proc. R. Dublin Soc. Ser. A, 5(20):331-83, 1975.
0113. FORDE, B.J.; SLACK, C.R.; ROUGHAN, P.G.; HASLEMORE, R.M. & McLEON, M.N. Growth of tropical and temperate grasses at Palmerston North. II. Total nitrogen, Soluble sugar, starch, and in vitro digestibility determinations. N.Z.J. Agric. Res., Wellington, 19(4):489-8, 1976.

0114. FISHER, H.J.; MYERS, L.F. & WILLIAMS, J.D. Nutrient responses of an indigenous *Poa* tussock and *Lolium perenne* L. grown separately and together in pot culture. Aust. J. Agric. Res., Melbourne, 25(6):863-74, 1974.
0115. FITTER, A.H. & BRADSHAW, A.D. Root penetration of *Lolium perenne* on colliery shale in response to reclamation treatments. J. Appl. Ecol., Oxford, 11(2):609-15, 1974.
0116. GILLET, M. Etude de la mise à fleur de quelques graminées fourragères. Ann. Amelior. Plant., Paris, 26(4):629-37, 1976.
0117. GILMORE, A.P. Allelopathic effects of fescue on the growth of sweetgum. J. Chem. Ecol., 2(4): 469-79, 1976.
0118. GOLDSMITH, F.B. Interaction (competition) studies as a step towards the synthesis of sea-cliff vegetation. J. Ecol., Oxford, 66(3):921-31, 1978.

0119. GONZALEZ, J. Phytopedological study of cespitose pastures of *Poa bulbosa* L. An. Edafol. Agrobiol., Madrid, 32(3/4):185-231, Mar./Apr. 1973.
0120. GRAMSHAW, D. Temperature/light interactions and the effect of seed source on germination of annual ryegrass (*Lolium rigidum* Gand.) seeds. Aust. J. Agric. Res., 27(6):779-86, 1976.
0121. GRANIER, P. & CABANIS, Y. Study on the germination of some savanna grasses and its relation with their distribution. R. Elev. Méd. Vet. Pays Trop., Paris, 27(3):363-9, 1974.
0122. GRANTER, P.; CABANIS, Y.; ELLENBERGER, F. & RAZA-FINDRATSITA. Evolution des pasturages. Etude de la biologie de deux graminees *Imperata cylindrica* (Linn.) et *Aristida rufescens* (Stend). R. D'Elev. Medic. Veter. Pays Trop., Paris, 30(2): 199-228, 1977.

0123. GREENWAY, M. The grazing of *Thalassia testudinum* in-kingston Harbour, Jamacia. Aquat. Bot. 2(2):117-26, June, 1976.
0124. GREGG JUNIOR, W.P. Ecology of the annual grass *Setaria lutescens* on oldfield on the Pennsylvania piedmont. Proc. Acad. Nat. Sci. Philadel., 124(7):135-96, 1973.
0125. GRELEN, H.E. Variation in penehill bluestem, a southern ecotype of the *Andropogon scoparius* complex. J. Range Manage., Baltimore, 27(4): 283-4, 1974.
0126. GUINOCHEZ, M. Some communities of the grassy slopes of the Prealpes de grasses. An. Inst. Bot. A.J. Cavanilles, Madrid, 32(2):1291-314, 1975.
0127. GUPTA, R.K. Synecology of grass covers & parallelism with forest types in Garhwal Himalaya. Indian For., Calcutta, 100(8):499-509, Aug. 1974.

0128. GYMEP, P.T. & WHITTINGTON, W.J. Factors influencing the proportion of natural hybrids between *Lolium perenne* L. and *Festuca pratensis* Huds. in permanent pastures. J. Br. grassl. Soc., Aberystwyth, 31(4):165-9, 1976.
0129. HAAG, W.L.; HILL JUNIOR, R.R. Comparison of selection methods for autotetraploids. II. Selection for disease resistance in alfalfa. Soil Sci. Soc. Amer. Proc., Madison, 38(4):591-3, 1974.
0130. HANNA, M.R.; SMOLIAK, S. & WILSON, D.B. Chinook orchard grass. Can. J. Plant. Sci., Ottawa, 57(2):615-6, 1977.
0131. HANSEN, D.J.; DAYANANDAN, P.; KAUFMAN, P.B. & BROTHERSON, J.D. Ecological adaptations of salt marsh grass, *Distichlis spicata* (gramineae), and environmental factors affecting its growth and distribution. Amer. J. Bot., New York, 63(5):635-50, 1976.

0132. HARRIES, J.H. & NORRINGTON-DAVIES, J. Competition studies in diploid and tetraploid varieties of *Lolium perenne*. II. The inhibition of germination. J. Agric. Sci., Cambridge. 88(2):411-5, 1977.
0133. HARRIS, G.A. Root phenology as a factor of competition among grass seedlings. J. Range Manage. Baltimore, 30(3):172-7, May 1977.
0134. HENNESSY, D.W. & WILLIAMSON, P.J. The nutritive value of kikuyu grass (*Pennisetum clandestinum*) leaf and the use of pelleted leaf in rations high or low in energy. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 16(82):729-34, 1976.
0135. HERMAN, W.A.; MCGILL, W.B. & DORMAAR, J.F. Effects of initial composition on decomposition of roots of three grass species. Can. J. Soil Sci., Ottawa, 57(2):205-15, 1977.

0136. HUNT, I.V.; FRAME, J. & HARKESS, R.D. The effect of delayed autumn harvest on the survival of varieties of perennial ryegrass. J. Br. Grassl. Soc., Aberystwyth, 31(4):181-90, 1976.
0137. HOJJATI, S.M.; TEMPLETON JUNIOR, W.C. & TAYLOR, T.H. Changes in chemical composition of Kentucky bluegrass and tall fescue herbages following N fertilization. Agron. J., Washington, 69(2):264-8, 1977.
0138. IVE, J.R. Growth and competition in annual legume-perennial grass pasture in a dry monsoonal climate. Aust. J. Ecol., Melbourne, 1(3):185-96, 1976.
0139. JENSEN, K.I.N.; STEPHENSON, G.R. & HUNT, L.A. Detoxification of atrazine in three gramineae sub families. Weed Sci., Ithaca, 25(3):212-20, 1977.

0140. JOHNSON, B.J. Vertical mowing and herbicide treatments on thatch in bermuda grass (*Cynodon dactylon*) turf. Weed Sci., Ithaca, 27(1):14-7, 1979.
0141. KAPOOR, P. & RAMAKRISHNAN, P.S. Fate of introduced populations of *Echinochloa colona* Link, under natural situations. Acta Bot. Indica, 2(2):136-43, Dec. 1974.
0142. LANGE, O. L.; KAPPEN, L. & SCHULZE, E. -D. eds. Ecophysiology of C<sub>4</sub> grasses. Ecol. Stud., New York, 19:364-86, 1976.
0143. LOWE, K. F. The value of a frost tolerant setaria component in mixed pastures for autumn saved feed in south-eastern Queensland. Trop. Grassl. Brisbane, 10(2):89-97, 1976.

0144. LUCAS, L. T. *Sclerotium rolfsii* on bentgrass in North Carolina. Plant Dis. Rep., Washington, 60(10):820-2, 1976.
0145. MAHMOUD, A. & GRIME, J. P. An analysis of competitive ability in three perennial grasses. New Phytol. Cambridge, 77(2):431-5, Sept. 1976.
0146. MATHUR, H. N. & JOSHI, P. Napier grass for Doon Valley. Indian Fmg., Calcutta, 26(5):23-5, 1976.
0147. MITCHELL, K. J. Influence of light and temperature on the growth of ryegrass (*Lolium spp.*). I. Pattern of vegetative development. Physiol. Plantarum, Copenhaguen, 6:21-46, 1953.

0148. MITCHELL, K. J. Influence of light and temperature on the growth of ryegrass (*Lolium* spp.). II. The control of lateral bud development. Physiol. Plantarum, Copenhague, 6:425-43, 1953.
0149. \_\_\_\_\_ & SOPER, K. Effects of differences in light intensity and temperature on the anatomy and development of leaves of *Lolium perene* and *Paspalum dilatatum*. N. Z. J. Agric. Res., Wellington, 1:1-16, 1958.
0150. MOLLE, K. G. Maize as a forage crop in Denmark. Anim. Feed Sci. & Technol., 1(1-2):183-6, 1976.
0151. MULDOON, D. K. & PEARSON, C. J. Hybrid *Pennisetum* in a warm temperate climate; regrowth and stand-over forage production. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 17(85):277-83, 1977.

0152. MURDOCH, C. L. & IKEDA, D. Goose-grass in bermuda grass turf with combinations of MSMA and S-triazines. Agron. J., Washington, 66(5):712-4, 1974.
0153. NETEMEYER, D. T.; BUSH, L. J. & ADAMS, G. D. Feeding value of reconstituted and finely ground sorghum grain for dairy cows. J. Dairy Sci., Lancaster, 60(5):748-51, 1977.
0154. NEWTON, J. E.; YOUNG, N. E. & ORR, R. J. A comparison on the sown swards of perennial ryegrass S.24 and Italian ryegrass RvP in a two-year lamb production system, with different breeds of sheep. J. Agric. Sci., Cambridge, 87(3): 605-16, 1976.
0155. NIKOLAEVSKII, V. G. Ecological and anatomic characteristics of some halophilic grasses. Sov. J. Ecol., New York, 6(5):407-11, Sept./Oct., 1975.

0156. NORRINGTON-DAVIES, J. Diallel analysis of competition between grass species. J. Agr. Sci., London, 71(2):223-31, Oct. 1968.
0157. \_\_\_\_\_. & HARRIES, J. H. Competition studies in diploid and tetraploid varieties of *Lolium perenne*. I. The influence of density and proportion of sowing. J. Agric. Sci., Cambridge, 88(2):405-10, 1977.
0158. OLD, K. M. & NICOLSON, T. H. Electron microscopical studies of the microflora of roots of sand dune grasses. New Phytol., Cambridge, 74(1): 51-8, 1975.
0159. PAUL SEN, H. A. Competition & successional patterns on *Thurber* fescue grasslands of Western U. S. A. In: INTERNATIONAL GRASSLAND CONGRESS, 11., 1970. Proceedings. p.662-5.

0160. PEACOCK, J. M. Temperature and leaf growth in four grass species. J. appl. Ecol., Oxford, 13:225-232. 1976.
0161. PERRY JUNIOR, L. J. & MOSER, L. L. Carbohydrate and organic nitrogen concentrations within range grass parts at maturity. J. Range Manage, Baltimore, 27(4):276-8, 1974.
0162. PORTEOUS, C. B. Early grass reduces feed bills. Agric. North. Isrel., 51(10):258, 1977.
0163. PORTER, J. K.; BACON, C. W. & ROBBINS, J. D. Major alkaloids of a Claviceps isolated from toxic *Bermuda grass*. J. Agric. Food Chem., Easton, 22(5):838-41, 1974.

0164. PYON, J. Y.; WHITNEY, A. S. & NISHIMOTO, R. K.  
Biology of sourgrass and its competition with  
buffelgrass and guineagrass. Weed Sci., Itha-  
ca, 25(2):171-4, 1977.
0165. QUINN, J. A. Variability among *Danthonia sericea*  
(Gramineae) populations in responses to substra-  
te moisture levels. Amer. J. Bot., New York,  
62(8):884-91, Sept. 1975.
0166. RAMOS, J. J.; MENA, V. F. O. & RODRIGUEZ, F. G.  
Establecimiento en microcuencas de seis zacates  
con tres niveles de fertilizacion. Pastizales,  
Chimahua, 7(4):5, 1976.
0167. REAY, P. F. & MARSH, B. Element composition of  
ryegrass and red clover leaves during a growing  
season. N. Z. J. Agric. Res., Wellington, 19  
(4):469-72, 1976.

0168. REES, M. C.; JONES, R. M. & ROE, R. Evaluation of pasture grasses and legumes in mixtures in south-east Queensland. Trop. Grassl., Brisbane 10(2):65-78, 1976.
0169. RENARD, C. & CAPELL, P. Seed germination in Ruzizi grass (*Brachiaria ruziziensis* Germain & Evrard). Aust. J. Bot., Melbourne, 24(4):437-46, 1976.
0170. REYNOLDS, S. G. Evaluation of pasture grasses under coconuts in Western Samoa. Trop. Grassl., Brisbane, 12(3):146-51, 1978.
0171. RITTENHOUSE, L. R. & SNEVA, F. A. Expressing the competitive relationship between wyoming big sagebrush and crested wheatgrass. J. Range Manage., Baltimore, 29(4):326-7, 1976.

0172. ROBSON, M. J. The effect of temperature on the growth of S170 tall fescue (*Festuca arundinacea*). III. Leaf growth and tiller production as affected by transfer between contrasting regimes. J. appl. Ecol., Oxford, 11:265-79, 1974.
0173. \_\_\_\_\_. & JEWISS, O. R. A comparison of British and North African varieties of tall fescue (*Festuca arundinacea*). III. Effect of light, temperature and daylength on relative growth rate and its components. J. appl. Ecol., Oxford, 5: 191-204, 1968.
0174. ROWLEY, J. A. Development of freezing tolerance in leaves of C<sub>4</sub> grasses. Aust. J. Plant Physiol., Melbourne, 3(5):597-603, 1976.

0175. RYAN, J.; MIYAMOTO, S. & STROEHLEIN, J. L. Salt and specific ion effects on germination of four grass. J. Range Manage, Baltimore, 28(1):61-5, 1975.
0176. SANDHA, G. S.; TWAMLEY, B. E. & CHRISTIE, B. R. Analysis of quantitative variability for seed yield and related characters in *Lotus corniculatus* L. cv. Leo. Euphytica, Wageningen, 26(1): 113-22, 1977.
0177. SANTI, R. & GOZZO, F. Degradation and metabolism of drepamone in rice and barnyard grass. J. Agric. Food Chem., Easton, 24(6):1229-35, 1976.
0178. SCHANK, S. C.; DAY, J. M. & DELGADO DE LUCAS, E. Nitrogenase activity, nitrogen content in vitro digestibility and yield of 30 tropical forage grasses in Brazil. Trop. Agric., Trinidad, 54(2):119-25, 1977.

0179. SELEDETS, V. P. Ecology of seacoast grasses of the Far East. Sov. J. Ecol., New York, 7(2): 107-11, Mar./Apr. 1976.
0180. SILCOCK, R. G.; NOBLE, A. & WHALLEY, R. D. B. Importance of phosphorus and nitrogen in the nutrition of grass seedlings growing in mulga soil. Aust. J. Agric. Res., Melbourne, 27(5): 585-92, 1976.
0181. SMITH, D. F. The growth of barley grass (*Hordeum leporinum*) in annual pasture. III. Some factors affecting balance with subterranean clover (*Trifolium subterraneum*). Aust. J. Exp. Agr. Anim. Husb., Melbourne, 8(35):702-5, Dec., 1968.

0182. SMITH, R. L.; BOUTON, J. H.; SCHANE, S. C.; QUESEN-BERRY, K. H.; TYLER, M. E.; MILAM, J. R.; GASKINS, M. H. & LITTEL, R. C. Nitrogen fixation in grass-Spirillum systems. Science, New York, 195(4284):1362, 1977.
0183. SOUGNEZ, N. & DETHIOUX, M. Shore vegetation with high nitrophilous grasses in Belgium. Beitr. Naturkd. Forsch. Sudwestdtschl., Karlsruhe, 34: 345-56, 1975.
0184. STEWARD, K. K. & ORNES, W. H. The autocology of sawgrass in the Florida everglades. Ecology, Brooklyn, 56(1):162-71, 1975.
0185. STRICKLAND, R. W. & HAYDOCK, K. P. A comparison of twenty *Digitaria* accession at four sites in south-east Queensland. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 18(95):817-24, 1978.

0186. TAYLOR, A. O.; HASLEMORE, R. M. & McLEOD, M. N.  
Potential of new summer grasses in Northland.  
III. Laboratory assessments of forage quality.  
N. Z. J. Agric. Res., Wellington, 19(4):483-8,  
1976.
0187. \_\_\_\_\_.; ROWLEY, J. A. & HUNT, B. J. Potential  
of new summer grasses in Northland. II. A fur-  
ther range of grasses. N. Z. J. Agric. Res.,  
Wellington, 19(4):477-81, 1976.
0188. THOMAS, N. & STEPPLER, H. A. Intraspecific compe-  
tition in timothy (*Phleum pratense* L.) & orch-  
ard grass (*Dactylis glomerata* L.). In: INTERNA  
TIONAL GRASSLAND CONGRESS, 11., 1970. Proceed-  
ings, p.668-72.

0186. TAYLOR, A. O.; HASLEMORE, R. M. & McLEOD, M. N.  
Potential of new summer grasses in Northland.  
III. Laboratory assessments of forage quality.  
N. Z. J. Agric. Res., Wellington, 19(4):483-8,  
1976.
0187. \_\_\_\_\_.; ROWLEY, J. A. & HUNT, B. J. Potential  
of new summer grasses in Northland. II. A fur-  
ther range of grasses. N. Z. J. Agric. Res.,  
Wellington, 19(4):477-81, 1976.
0188. THOMAS, N. & STEPPLER, H. A. Intraspecific compe-  
tition in timothy (*Phleum pratense* L.) & orch-  
ard grass (*Dactylis glomerata* L.). In: INTERNA  
TIONAL GRASSLAND CONGRESS, 11., 1970. Proceed-  
ings, p.668-72.

0189. TUCKER, C. J. Resolution of grass canopy biomass classes. Photogramm. Eng. Remote Sensing, Washington, 43(8):1059-67, Aug. 1977.
0190. \_\_\_\_\_. Spectral estimation of grass canopy variables. Remote Sensing Environ., New York, 6(1):11-26, 1977.
0191. \_\_\_\_\_. & GARRATT, M. W. Three-dimensional chlorophyll concentrations in a high biomass blue grama canopy. J. Range Manage., Baltimore, 29(2):170-1, 1976.
0192. URESK, D. W. & CLINE, J. E. Mineral composition of three perennial grasses in a shrub-steppe community in southcentral Washington. J. Range Manage., Baltimore, 29(3):255-6, 1976.

0193. VAN WIJK, A. J. P. Herbage yield and quality relationships of three varieties of *Setaria sphacelata* (Schumach.) Stapf and Hubbard. Neth. J. Agric. Sci., Wageningen, 24(3): 147-54, 1976.
0194. WATSON, L. & CLIFFORD, H. T. The major groups of Australasian grasses: a guide to sampling. Aust. J. Bot., Melbourne, 24(4):489-507, 1976.
0195. WEAVER, J. E. & DARLAND, R. W. A method of measuring vigor in rangeland grasses. Ecology, Brooklyn, 28:146-52, 1947.
0196. WEDIN, W. F. Fertilization of coolseason grasses. In: MAYS, D. A. ed. Forage fertilization; Proceeding of a symposium, 1972., Muscle Shoals, 1974. s.l., Crop Science Society of America, p.95-118.

0197. WIDDOWSON, J. P. & WATTS, H. M. Coal as a source of sulphur for perennial ryegrass. N. Z. J. Agric. Res., Wellington, 19(3):323-9, 1976.
0198. WILKINSON, S. R. & LANGDALE, G. W. Fertility needs of the warm-season grasses. In: MAYS, D A. ed. Forage fertilization; Proceeding of a symposium, 19., Muscle Shoals, 1972. s.l.. Crop Science Society of America, 1974. p.119-45.
0199. WILLIAMS, G. J. Photosynthetic adaptation to temperature in C<sub>3</sub> and C<sub>4</sub> grasses. A possible ecological role in the shortgrass prairie. Plant Physiol., Lancaster, 54(5):709-11, 1974.
0200. WILLIAMS, O. B. Studies in the ecology of the riverine plain. IV. Basal area and density changes of *Danthonia caespitosa* Gaudich. in a natural pasture grazed by sheep. Austral. J. Bot., Melbourne, 16(3):565-78, Dec. 1968.

0201. WILMAN, D.; KOCHEKI; A.; LWOGA, A. B. & SAMAAN, S. F. Digestion *in vitro* of Italian and perennial ryegrasses, red clover, white clover and lucerne. J. Br. Grassland Soc., Aberystwyth, 32(1):13-24, 1977.
0202. WILSON, G. P. M. & HENNESSY; D. W. The germination of excreted kikuyo grass seed in cattle dung pats. J. Agric. Sci., London, 88(1):247-9, 1977.
0203. WOLFF, T. Utilization of seagrass in the deep sea. Aquat. Bot., 2(2):161-74, June, 1976.
0204. WU, C. H.; MYERS, H. R. & SANTELMANN, P. W. Chemical retardation of bermudagrass turf. Agron. J., Washington, 68(6):949-54, 1976.

0205. YATES, J. J. Seed-setting in subterranean clover (*Trifolium subterraneum* L.). II. Strain-environment interaction on single plants. Aust. J. Agri. Res., Melbourne, 9:755-66, 1958.
0206. YOUNG, J. A.; KAY, B. L. & EVANS, R. A. Accelerating the germination of common bermudagrass for hydroseeding. Agron. J., Washington, 69(1):115-9, 1977.
0207. YOUNGER, D. R. & GILMORE, J. M. Studies with pasture grasses on the black cracking clays of the Central Highlands. I. Species evaluation. Trop. Grassl., Brisbane, 12(3):152-62, 1979.
0208. ZIEMAN, J. C. Methods for the study of the growth and production of turtle grass, *Thalassia testudinum* Hoenig. Aquaculture, 4(2):139-43, 1974.

0209. ZIEMAN, J. C. The ecological effects of physical damage from motor boats on turtle grass. Aquat. Bot., 2(2):127-39, June, 1976.

LEGUMINOSAS

0210. ALVAREZ, M. A. & MOREY, M. Ecología de leguminosas pratenses en relación con algunos factores ambientales en la cuenca baja del Narcea (Asturias). R. Pastos, Madrid, 4(2):220-34, 1974.
0211. ANDREW, C. S. Effect of calcium, pH and nitrogen on the growth and chemical composition of some tropical and temperate pasture legumes. I. Nodulation and growth. Aust. J. Agric. Res., Melbourne, 27(5):611-23, 1976.
0212. \_\_\_\_\_. & JOHNSON, A. D. Effect of calcium, pH and nitrogen on the growth and chemical composition of some tropical and temperate pasture legumes. II. Chemical composition (calcium, nitrogen, potassium, magnesium, sodium and phosphorus). Aust. J. Agric. Res., Melbourne, 27(5):625-36, 1976.

0213. BONNIER, C. & BRAKEL, J. Problème spécifique des legumineuses tropicales. In: SEMINARIO SOBRE METODOLOGIA E PLANEJAMENTO DE PESQUISA COM LEGUMINOSAS TROPICAIS, Campo Grande, MS., 1970. As leguminosas na agricultura tropical; Anais. Rio de Janeiro, DNPEA, 1971. p.28-51.
0214. BURT, R. L. Variation within naturally occurring Townsville stylo (*Stylosanthes humilis*) populations; changes in population structure & some agronomic implications. Aust. J. Agric. Res., Melbourne, 24(5):703-713, Sept., 1979.
0215. \_\_\_\_\_. & REID, R. Exploration for, and utilization of, collections of tropical pasture legumes. III. The distribution of various stylosanthes species with respect to climate and phytogeographic regions. Agro-Ecosystems, Amsterdam, 2(4):319-27, 1976.

0216. BURT, R. L.; REID, R. & WILLIAMS, W. T. Exploration for, and utilization of, collections of tropical pasture legumes. I. The relationship between agronomic performance and climate of origin of introduced *Stylosanthes* spp. Agro-Ecosystems, Amsterdam, 2(4):293-307, 1976.
0217. CAMERON, D. F. & McCOWN, R. L. Rapid changes in simple mixtures of Townsville stylo (*Stylosanthes humilis*) lines differing in flowering time and growth habit. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 17(84):97-104, 1977.
0218. EDYE, L. A.; WILLIAMS, W. T.; BISHOP, H. G.; BURT, R. L.; COOK, B. G.; HALL, R. L.; MILLER, C. P.; PAGE, M. C.; PRINSEN, J. H.; STILLMAN, S. L. & WINTER, W. H. Sward tests of some *Stylosanthes guyanensis* accessions in tropical and subtropical environments. Aust. J. Agric. Res., Melbourne, 27(5):637-47, 1976.

0219. HUTTON, E. M. & BEAL, L. B. Breeding of *Macroptilium atropurpureum*. Trop. Grassl., Brisbane, 11(1):15-31, 1977.
0220. JONES, R. K. A study of the phosphorus response of a wide range of accessions from the genus *Stylosanthes*. Aust. J. Agric. Res., Melbourne, 25(6):847-62, 1974.
0221. LITTLE, D. A. Assesment of several pasture species, particularly tropical legumes, for oestrogenic activity. Aust. J. Agric. Res., Melbourne, 27(5):681-6, 1976.
0222. LUDLOW, M. M. & FISHER, M. J. Influence of soil surface litter on frost damage in *Macroptilium atropurpureum*. J. Aust. Inst. Agric. Sci., 42(2):134-6, 1976.
0223. MAUN, M. A. Suppressing effect of soybeans on barnyard grass. Can. J. Plant Sci., Ottawa, 57(2):485-90, 1977.

0224. PLATT, W. J.; HILL, G. R. & CLARK, S. Seed production in a prairie legume (*Astragalus canadensis* L.). Interactions between pollination, predispersal seed predation, and plant density. Oecologia, Berlin, 17(1):55-63, 1974.
0225. REID, R.; RYAN, D. M. & BURT, R. L. Exploration for, and utilization of, collections of Tropical pasture legumes. II. The Papadakis system of climatic classification applied to testing areas in northern Australia. Agro-Ecosystems, Amsterdam, 2(4):309-18, June, 1976.
0226. SIMPSON, J. R. Transfer of nitrogen from three pasture legumes under periodic defoliation in a field environment. Aust. J. Exp. Agric. Anim. Husb., 16(83):863-70, 1976.

0227. ALDOUS, A. E. Effect of different clipping treatments on the yield and vigor of prairie grass vegetation. Ecology, Brooklin, 11:752  
1930.
0228. ALLEN, L. J.; HARBERS, L. H.; SCHALLES, R. R.; OWENSBY, C. E. & SMITH, E. F. Range burning and fertilizing related to nutritive value of bluestem grass. J. Range Manage., Baltimore, 29(4):306, 8, 1976.
0229. ALLEN, P. G. Alternative insecticides for the control of the pasture cockchafer (*Aphodius tasmaniæ* Hope) in pasture. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 16(82):755-7, 1976.
0230. ARMSTRONG, D. Pasture management for weed control. N. Z. J. Agric., Wellington, 134(3):21-2, 1977.

0231. AUDSLEY, E. Discussion on a "system of optimising the use of animal manures on a grassland farm" by V. A. Dodd, D. F. Lyons and P. D., Herlihy. J. Agric. Eng. Res., 21(3):325-7, 1976.
0232. BALL, M. E. Floristic changes on grasslands and heaths on the Isle of Rhum after a reduction or exclusion of grazing. J. Environ. Manage., 2(4):299-318, 1974.
0233. BARRETT, G. W. The effects of an acute insecticide stress on a semienclosed grassland ecosystem. Ecology, Brooklyn, 49(6):1019-35, 1968.
0234. BARTON, N. J. & McLAUGHLIN, J. W. Effects of formaldehyde treatment of high quality pasture hay on its utilization by weaner sheep. Aust: J. Exp. Agric. Anim. Husb., Melbourne, 16(82):661-7, 1976.

0235. BEATY, E. R.; ENGLE, J. L. & POWELL, J. D. Yield, leaf growth, and tillering in bahiagrass by N rate and season. Agron. J., Washington, 69(2): 308-11, 1977.
0236. \_\_\_\_\_ & POWELL, J. D. Response of switchgrass (*Panicum virgatum* L) to clipping frequency. J. Range Manage, Baltimore, 29(2):132-5, 1976.
0237. BEKELE, E.; PIEPER, R. D. & DWYER, D. D. Clipping height and frequency influence growth response of nitrogen-fertilized blue grama. J. Range Manage, Baltimore, 27(4):308-9, 1974.
0238. BEWG, P. Temperature and pasture growth. South. Pac. B., Sydney, 24(3):48-51, 1974.
0239. BLAIR, A. M.; DRENNAN, D. S. H. & HOLLY, K. The selectivity of methabenzthiazuron between barley, perennial ryegrass and *Poa trivialis*. Weed Res., Oxford, 16(6):379-83, 1976.

0240. BLUNT, G. G. & HAYDOCK, K. P. Effect of irrigation, nitrogen and defoliation on pangola grass in the dry season at the Ord Valley, northwestern Australia. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 18(95):825-33, 1978.
0241. BISHOP, H. G. & GRAMSHAW, D. Effect of sowing rate, grass competition and cutting frequency on persistence and productivity of two lucerne (*Medicago sativa*) cultivars at Bilocla, Queensland. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 17(84):105-11, 1977.
0242. BONHAM, C. D. & LERWICK, A. Vegetation changes induced by prairie dogs on shortgrass range. J. Range Manage., Baltimore, 29(3):221-5, 1976.
0243. BOVEY, R. W.; MEYER, R. E. & HOLT, E. C. Tolerance of bermudagrass to herbicides. J. Range Manage., Baltimore, 27(4):293-6, 1974.

0244. BROWN, T. H. Rate of loss of dry matter and change in chemical composition of nine pasture species over summer. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 17(84):75-9, 1977.
0245. BUKEY, F. S. & WEAVER, J. E. Effects of frequent clipping on underground food reserves of certain prairie grasses. Ecology, Brooklyn, 20(2):246-52, 1939.
0246. CABLE, D. R. Twenty years of changes in grass production following mesquite control and reseeding. J. Range Manage., Baltimore, 29(4):286-9, 1976.
0247. CADWALLADR, D. A. & MORLEY, J. V. Further experiments on the management of saltmarsh pasture for wigeon (*Anas penelope* L.) conservation at Bridgwater Bay National Nature Reserve, Somerset. J. appl. ecol., Oxford, 11:461-6, 1974.

0248. CANNON, R. & HINDS, J. Pastures in basaltic uplands; their use and management. Queensl. Agric. J., Brisbane, 103(1):21-30, 1977.
0249. CANODE, C. L. Tolerance of five cool-season perennial grasses to selected herbicides. Agron. J., Washington, 66(5):683-6, 1974.
0250. CARROW, R. N. & TROLL, J. Cutting height and nitrogen effects on improved perennial ryegrasses on monostand and polystand communities. Agron. J., Washington, 69(1):5-10, 1977.
0251. CARTER, M. V. & PRICE, T. V. Explanation of the failure of a commercial scale application of benomyl to protect pruned apricot trees against *Eutypa dieback* disease. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 17(84):171-3, 1977.
0252. CHANG-HUNG CHOU. Effect of fire on California chaparral vegetation. Bot. B. Acad. Sin. N. Ser., Shanghai, 14(1):23-34, Jan. 1973.

0253. CHARLTON, J. F. L. Slugs as a possible cause of establishment failure in pasture legumes oversown in boxes. N. Z. J. Exp. Agric., Wellington, 6(4):313-7, 1978.
0254. CLANTON, D. C. Finishing cattle on pasture and other forages; irrigated pasture. J. Anim. Sci., Albany, 44(5):908-12, 1977.
0255. CLARR, J.; SANTHIRASEGARAM, K. The effects of changes in heights of cutting and growth on the digestible organic matter production and botanical composition of perennial pasture. J. Brits. Grass. Soc., Aberystwyth, 29(4):269-73, 1974.
0256. COLLIER, R. E. & PARKER-SUTTON, J. A measure of the effect of drying temperature on the selenium content of herbage. J. Sci. Food Agric., London, 27(8):743-4, 1976.

0257. COOK, B. G. & O'GRADY, R. Atrazine in kikuyu grass establishment; a preliminary study. Trop. Grassl., Brisbane, 12(3):184-7, 1979.
0258. COOK, C. W.; DENHAM, A. H.; BARTLETT, E. T. & CHILD, R. D. Efficiency of converting nutrients and cultural energy in various feeding and grazing systems. J. Range Manage., Baltimore, 29(3):186-91, 1976.
0259. COOK, S.; LAZENBY, A. & BLAIR, G. J. Comparative responses of *Lolium perenne* and *Bothriochloa* *ma* *cra* to temperature moisture, fertility and defoliation. Aust. J. Agric. Res., Melbourne, 27(6):769-78, 1976.
0260. \_\_\_\_\_. & LOWE, K. F. Establishment of Siratro pastures. Trop. Grassl., Brisbane, 11(1):41-8, 1977.

0261. COOPER, J. P. & SAEED, S. W. Studies on growth and development in *Lolium*. I. Relation of the annual habit to head production under various systems of cutting. Ecology, Brooklyn, 37(2): 234-59, 1949.
0262. COWAN, R. T. & STOBBS, T. H. Effects of nitrogen fertilizer applied in autumn and winter on milk production from a tropical grass-legume pasture grazed at four stocking rates. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 16(83): 829-37, 1976.
0263. DAUBENMIRE, R. Ecology of fire in grassland. Adv. Ecol. Res., 5:209-66, 1968.
0264. DAVIS, B. N. K. Effects of mowing on meadow cranesbill *Geranium pratense* L., & on weevil *Zacladus geranii* (Payk.). J. Appl. Ecol., Oxford, 10(3):747-59, Dec. 1973.

0265. DOWLING, P. M. & ROBINSON, G. G. Some factors affecting the establishment and early production of oversown grasses. Aust. J. Exp. Agric. Anim Husb., Melbourne, 16(82):709-14, 1976.
0266. \_\_\_\_\_ & SMITH, R. C. G. Use of a soil moisture model and risk analysis to predict the optimum time for the aerial sowing of pastures on the northern tablelands of New South Wales. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 16(83):871-4, 1976.
0267. DREW SMITH, J. Snow mold control in turfgrasses with fungicides in Saskatchewan, 1971-74. J. Canadian Plant Dis. Surv., 56(1):1-8, 1976.
0268. DUFFEY, E.; MORRIS, M. G.; SHEAIL, J.; WARD, L. K.; WELLS, D. A. & WELLS, T. C. E. Grassland ecology and wildlife management. London, Chapman & Hall, 1974. 281p.

0269. ELLISON, L. Influence of grazing on plant succession of rangelands. Bot. Rev., 26:1-78, 1960.
0270. ENG, P. K.; KERRIDGE, P. C. & MANNETJE, L. T. Effects of phosphorus and stocking rate on pasture and animal production from a guinea grass-legume pasture in Johore, Malaysia. I. Dry matter yields, botanical and chemical composition. Trop. Grassl., Brisbane, 12(3):188-97, 1977.
0271. \_\_\_\_\_.; MANNETJE, L. T. & CHEN, C. P. Effects of phosphorus and stocking rate on pasture and animal production from a guinea grass-legume pasture in Johore, Malaysia. II. Animal live-weight change. Trop. Grassl., Brisbane, 12(3):198-207, 1979.
0272. ENRIGHT, N. J. The interrelationship between plant species distribution and properties of soils undergoing podzolization in a coastal area of S. W. Australia. Aust. J. Ecol., Melbourne, 3(4):389-401, 1978.

0273. FAULKNER, J. S. The effect of dalapon on thirty-five cultivars of *Lolium perenne*. Weed Res., Oxford, 14(6):405-13, 1974.
0274. FORBES, J. C. Influence of management and environmental factors on the distribution of the Marsh ragwort (*Senecio aquaticus* Huds.) in agricultural grassland in Orkney. J. appl. Ecol., Oxford, 13:985-90, 1976.
0275. FUNES, F. Effect of fire and grazing in the maintenance of tropical grassland. Cuban J. Agric. Sci., 9(3):379-95, Nov. 1975.
0276. GIFFORD, G. F. & HAWKINS, R. H. Grazing systems and watershed management; a look at the record. J. Soil Water Conserv., Baltimore, 31(6):281-3, 1976.
0277. GILBEY, D. J. Selective chemical control of doublegee (*Emex australis*) in legume pasture. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 17(84):80-5, 1977.

0278. GILL, A. M. & INGWERSEN, F. Growth of *Xanthorrhoea australis* R. BR. in relation to fire. J. appl. Ecol., Oxford, 13:195-203, 1976.
0279. GILLHAM, M. E. Ecology of the Pembrokeshire Islands. III. The effect of grazing on the vegetation. J. Ecol., Oxford, 43:172-206, 1955.
0280. GINEZ, A. R.; FARÍÑAS, M. R. & GIL BERDES, R. A. Estudio ecologico y control quimico de malezas dicotiledoneas (hojas anchas) en pastizales naturales. B. Soc. Venez. Ci. Nat., 30(124-125): 13-22, 1972.
0281. GLAVIMANS, E. J. H. Good traprock pastures need proper grazing management. Queensl. Agric. J., Brisbane, 102(5):468-72, 1976.

0282. GONZALEZ, H. L. & TRUJILLO, A. E. Malezas del eco  
sistema pastizal de los Llanos Occidentales y  
del Estado Apure. In: Sosa, R. ed. Ganaderia  
en los tropicos. Caracas. Asociación Venezola  
na de Criadores de Ganado Cebú, 1973. v.2,  
p.15-52.
0283. GRIME, J. P. Control of species density in herba  
ceous vegetation. J. Environ. Manag., 1(2):151  
-67, 1973.
0284. HAVERKAMP, M. R. & JORDAN, G. L. The effect of se  
lected presowing seed treatments on germination  
of Lehmann lovegrass seeds. J. Range Manag.,  
Baltimore, 30(2):151-3, 1977.
0285. HAGON, M. W. & GROVES, R. H. Some factors affec  
ting the establishment of four native grasses.  
Aust. J. Exp. Agric. Anim. Husb., Melbourne, 17  
(84):90-6, 1977.

0286. HALLIGAN, J. P. Bare areas associated with shrub stands in grassland: case of *Artemisia californica*. Bioscience, Washington, 23(7):429-32, July, 1973.
0287. HANSON, A. A. Breeding and management of forage crop in the Eastern plains. Proc. Amer. Grassl. Counc., p.9-14, 1967.
0288. HANSON, C. L.; SCHUMAKER, G. A. & ERICKSON, C. J. Influence of fertilization and supplemental runoff water on production and nitrogen content of western wheatgrass and smooth brome. J. Range Manage., Baltimore, 29(5):406-9, 1976.
0289. HARRINGTON, G. N. & ROSS, I. C. The savanna ecology of Kidepo valley National Park. I. The effects of burning and browsing on the vegetation East Afric. Wildl. J., Nairobi, 12(2):93-105, 1974.

0290. HARSHBARGER, T. J.; PERKINS, C. J. & MARTIN, R. E.  
Legume response unrelated to fuel moisture at  
time to burning. J. Range Manage., Baltimore,  
20(1):70-1, 1975.
0291. HART, R. H.; MARCHANT, W. H.; BUTLER, J. L.; HELL-  
WIG, R. F.; MCCORMICK, W. C.; SOUTHWELL, B. L.  
& BURTON, G. W. Steer gains under six systems  
of coastal Bermudagrass utilization. J. Range  
Manage., Baltimore, 29(5):372-5, 1976.
0292. HAVEH, Z. The ecological management of non-arable  
Mediterranean uplands. J. Envir. Manag., 2(4):  
351-71, 1974.
0293. HAYAKAWA, Y. Studies on the ecological management  
of pastures. II. The effect of overgrazing on  
livestock and pasture under the monsoon condi-  
tion. Res. B. Hokkaido Nat. Agric. Exp. Sta.,  
(105):61-73, 1973.

0294. HAYAKAWA, Y. & MIYASHITA, A. Studies on the ecological management of pastures. I. Neighbourhood relationships of the different animal types and grazing density which affects the grazing forms of the group type and scattered type. Res. B. Hokkaido Nat. Agric. Exp. Stat., (105):51-60, 1973.
0295. HEADY, H. F. Grassland response to changing animal Species. J. Soil Water Conserv., Baltimore, 23(5):173-6, Sept./Oct. 1968.
0296. HEWITT, G. B. & BLICKENSTAFF, C. C. Evaluation of methods for screening grasses for resistance to grasshopper feeding. J. Range Manage., Baltimore, 27(4):285-7, 1974.
0297. HODGKINSON, K. C. The effects of frequency and extent of defoliation, summer irrigation, and fertilizer on the production and survival of the grass *Danthonia caespitosa* Gaud. Aust. J. Agric. Res., Melbourne, 27(6):755-67, 1976.

0298. HOOPER, J. F. & GRUMBLES, J. B. Is range management a profession? J. Range Manage., Baltimore, 22(2):79-83, Mar., 1969.
0299. HOUSTON, W. R. & HYDER, D. N. Controlling six-weeks fescue on shortgrass range. J. Range Manage., Baltimore, 29(2):151-3, 1976.
0300. \_\_\_\_\_. & \_\_\_\_\_. Ecological effects and fate of N following massive N fertilization of mixed -grass plains. J. Range Manag., Denver, 28(1):56-60, 1975.
0301. HUBBARD, R. E. & HANSEN, R. M. Diets of wild horses, cattle, and mule deer in the Piceance Basin, Colorado. J. Range Manage., Baltimore, 29(5):389-92, 1976.
0302. HUMPHREYS, L. R. & JONES, R. J. The value of ecological studies in establishment and management of sown tropical pastures. Trop. Grassl., Brisbane, 9(2):125-31, July, 1975.

0303. HUTCHINSON, G. P.; ANDERSON, R. K. & CROCKETT, J. J. Change in species composition of grassland communities in response to grazing intensity. Proc. Okla. Acad. Sci., 47:25-7, 1968.
0304. HYDER, D. N.; BEMENT, R. E.; REMMENGA, E. E. & HERVEY, D. F. Ecological responses of native plants and guidelines for management of short-grass range. Fort Colins, U. S. Department of Agriculture, 1975. 87p. (Technical Bulletin, 1503).
0305. \_\_\_\_\_.; HOUSTON, W. R. & BURWELL, J. B. Drought resistance of blue grama as affected by atrazine and N fertilizer. J. Range Manage., Baltimore, 29(3):214-6, 1976.
0306. JAMES, L. F. & CRONIN, E. H. Management practices to minimize death losses of sheep grazing halogeton-infested range. J. Range Manag., 27(6): 424-6, 1974.

0307. JAMESON, D. A.; D'AQUINO, S. A. & BARTLETT, E. T.  
Economics and management planning of range eco-  
systems. Rotterdam, Balkema, 1974. 244p.
0308. JENSEN, P. N. & SCHUNACHER, C. M. Changes in prae-  
rie plant composition. J. Range Manage., Balti-  
more, 22(1):57-60, Jan. 1969.
0309. JOHNSON, B. J. Effect of activated charcoal on  
herbicide injury during establishment of centi-  
pedegrass. Agron. J., Washington, 68(5):802-5,  
1976.
0310. \_\_\_\_\_. Effects of herbicides on stablishment  
of centipedegrass. Agron. J., Washington, 68  
(6):852-5, 1976.
0311. \_\_\_\_\_. Herbicides for seasonal weed control  
in turfgrasses. Agron. J., Washington, 68(5):  
717-20, 1976.

0312. \_\_\_\_\_. Purple nutsedge control in turfgrasses with S-21634. Weed Sci., Ithaca, 22(6):549-52.
0313. \_\_\_\_\_. Renovation of turfgrasses with herbicides. Weed Sci., Ithaca, 24(5):467-72, 1976.
0314. \_\_\_\_\_. Vertical mowing and herbicide treatments on thatch in bermudagrass (*Cynodon dactylon*) turf. Weed Sci., Ithaca, 27(1):14-7, 1979.
0315. JOHNSON, J. & GARTNER, F. R. Perspectives on predator management. J. Range Manage., Baltimore, 28(1):18-21, 1975.
0316. JUDD, B. I. New world tropical forage grasses and their management. World Crops, London, 26(5):215-8, 1974.

0317. KILCHER, M. R.; HEINRICHS, D. H. & LODGE, R. W.  
Row spacings of Russian wildrye for fall pasture in southern Saskatchewan. J. Range Manage., Baltimore, 29(3):237-40, 1976.
0318. LAMBOT, O.; CORDIEZ, E.; BIENFAIT, J. M.; PONDANT, A.; EENAEME, C. van; DENAYER, J. & NICKS, B.  
Choix de la hauteur de coupe lors de la recolte des plantes de mais destinees a l'ensilage. Rev. Agric., 29(5):1171-90, 1976.
0319. LODGE, R. W. & LAWRENCE, T. Management studies of Russian wild ryegrass (*Elymus junceus*), green stipagrass (*Stipa viridula*) and altai wild rye-grass (*Elymus augustus*). Forage Notes, Ottawa, 13(2):26, 1967.
0320. LONG, C. E. & CAMPBELL, R. W. Some responses of bluegrass to herbicides and temperature variation. Weed Sci., Ithaca, 22(5):487-9, 1974.

0321. LOTERO, C. J. Pasture management. B. Agr. Soc.  
Antioquena, 569:10952-10954, Nov./Dec. 1967.
0322. LUDWICK, A. E. & RUMBURG, C. B. Grass hay production as influenced by N-P topdressing and by residual P. Agron. J., Washington, 68(6):933-7, 1976.
0323. McCOLLUM, I. N. & SHIRLEY, N. T. Weed control in grassland. Agric. North. Ire., 51(11):296-9, 1977.
0324. McGEORGE, M. S. & LUDECKE, T. E. South Island pasture maintenance needs. N. Z. J. Agric., Wellington, 134(3):31-3, 1977.
0325. McGINNIES, W. J. Effect of planting depth on seedling growth of Russian wildrye (*Elymus junceus* Fisch.). J. Range Manage., Baltimore, 27(4):305-7, 1974.

0326. McLAREN, R. G. Effects of fertilizers on the sulphur content of herbage. J. Brit. Grassland Soc., Aberystwyth, 31(3):99-103, 1976.
0327. McWILLIAMS, J. R.; CLEMENTS, R. J. & DOWLING, P. M. Some factors influencing the germination and early seed development of pasture plants. Aust. J. agric. Res., Melbourne, 21:19-32, 1970.
0328. MARTIN, R. J. Control of bracken (*Pteridium esculentum* G.) Forst (cockayne) in pasture with a sulam. Weed Res., Oxford, 17(1):49-54, 1977.
0329. \_\_\_\_\_. & COLMAN, R. L. The effects of fertilizers, herbicides and grazing intensity on the incidence of fireweed (*Senecio lautus*) in subtropical pastures. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 17(85):296-300, 1977.

0330. MARTIN, S. C. & WARD, D. E. Perennial grasses respond inconsistently to alternate year seasonal rest. J. Range Manage., Baltimore, 29(4):346, 1976.
0331. MYLAND, H. F.; MOLLOY, L. F. & COLLIE, T. W. Higher fatty acid composition of immature forages as affected by N fertilization. Agron. J., Washington, 68(6):979-82, 1976.
0332. MAZUR, A. R. & HUGHES, T. D. Chemical composition and quality of Pennycross creeping bentgrass as affected by ammonium, nitrate, and several fungicides. Agron. J., Washington, 68(5): 721-3, 1976.
0333. MICHALK, D. L. & BEALE, J. A. An evaluation of barrel medic (*Medicago truncatula*) as an introduced pasture legume for marginal cropping areas of southeastern Australia. J. Range Manage., Baltimore, 29(4): 328-33, 1976.

0334. MICHALK, D. L.; BYRNES, C. C. & ROBARDS, G. E. Effects of grazing management on natural pastures in a marginal area of southeastern Australia. J. Range Manage., Baltimore, 29(5):380-3, 1976.
0335. MINTER, L. K. Control of barley grass and other pasture weeds with ethofumesate (NC 8438). Proc. N. Z. Weed Pest Control Conf., 27:82-4, 1974.
0336. MOLINE, W. J.; REHM, G. W. & NICHOLS, J. T. Fertilizer responses of irrigated grasslands. In: MAYS, D. A. ed. Forage fertilization; proceedings of a symposium, 19., Muscle Shoals, 1972. s.l., American Society of Agronomy, 1974. p.213-9.
0337. MONSON, W. G. Effects of paraquat on yield and quality of coastal bermudagrass. Agron. J., Washington, 69(2):323-4, 1977.

0338. MORROW, L. A.; McCARTY, M. K. Selectivity and soil persistence of certain herbicides used on perennial forage grasses. J. Environ. Qual., 5(4): 462-5, 1976.
0339. NELSON, C. J.; DUNN, J. H. & COUTS, J. M. Growth responses of tall fescue and bermudagrass to leaf applications of aycymidol. Agron. J., Washington, 69(1):61-4, 1977.
0340. NGETHE, J. C. Preference and daily intake of five East African grasses by zebras. J. Range Manage., Baltimore, 29(6):510, Nov. 1976.
0341. NIEHAUS, M. H. Effect of cultivar, seeding rate and nitrogen fertilization on Kentucky bluegrass - perennial ryegrass turf mixtures. Agron. J., Washington, 68(6):955-7, 1976.

0342. NIERING, W. A. & GOODWIN, R. H. Creation of relatively stable shrublands with herbicides: arresting succession on rights-of-way and pasture-land. Ecology, Brooklyn, 55(4):784-95, 1974.
0343. NOY-MEIR, I. Rotational grazing in a continuously growing pasture; a simple model. Agric. Syst., 1(2):87-112, 1976.
0344. G'Rourke, J. T.; FRAME, G. W. & TERRY, P. J. Progress on control of *Eleusine jaegeri* Pilg. in East Africa. PANS, London, 21(1):67-72, 1975.
0345. OWENSBY, C. E.; SMITH, E. F. & RAINS, J. R. Carbohydrate and nitrogen reserve cycles for continuous, season-long and intensive early stocked Flint Hills bluestem range. J. Range Manage., Baltimore, 30(4):258-60, July, 1977.

0346. PAIN, B. F. & PHIPPS, R. H. The effect of heavy dressings of slurry forage maize production. J. Br. Grassl. Soc., Aberystwyth, 29(4):263-7, 1974.
0347. PAPANASTASIS, V. Factors involved in the decline of annual ryegrass seeded on burned brushlands in California. J. Range Manage., Baltimore, 29(3):244-7, 1976.
0348. PEARSON, C. J. & ANTHONY, D. T. W. Hybrid pennisetum in a warm temperate climate: effects of plant density on summer production. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 17(85):284-9, 1977.
0349. PEARSON, H. A. Herbage disappearance and grazing capacity determinations of southern pine bluestem range. J. Range Manage., Baltimore, 28(1):71-3, 1975.

0350. PETTIT, R. D. & FAGAN, R. E. Influence of nitrogen and irrigation on carbohydrate reserves of buffalograss. J. Range Manage., Baltimore, 27(4):279-82, 1974.
0351. POLK JUNIOR, D. B.; SCIFRES, C. J. & MUTZ, J. L. Establishment, production, and protein content of four grasses in South Texas. J. Range Manage., Baltimore, 29(3):240-3, 1976.
0352. PRIMACK, R. B. Effects of grazing on indigenous shrubs in tussock grassland at Cass, Canterbury, New Zealand. N. Z. J. Bot., Wellington, 16(4):461-9, 1978.
0353. RATTRAY, J. M. Pasture, establishment, management, production. Philip. Farms Gard., 4(6): 14-23, 33, 39, June, 1967.

0354. RAYMENT, G. E.; BRUCE, R. C. & ROBBINS, G. B.  
Response of established Siratro (*Macroptilium atropurpureum* cv. Siratro) pastures in South east Queensland to phosphorus fertilizer.  
Trop. Grassl., Brisbane, 11(1):67-77, 1977.
0355. REARDON, P. O. & MERRIL, L. B. Vegetative response under various grazing management systems in the Edwards Plateau of Texas. J. Range Manage., Baltimore, 29(3):195-8, 1976.
0356. REDETZKE, K. A. & VAN DYNE, G. M. A matrix model of a rangeland grazing system. J. Range Manage., Baltimore, 29(5):425-30, 1976.
0357. REEVES, H. C. Use of prescribed fire in land management. J. Soil Water Conserv., Baltimore, 32(2):102-4, 1977.

0358. REHM, G. W.; SORENSEN, R. C. & MOLINE, W. J. Time and rate of fertilizer application for seeded warm-season and bluegrass pastures. I. Yield and botanical composition. Agron. J., Washington, 68(5):759-64, 1976.
0359. RICHARD, D. S. & COSSENS, G. G. Pasture irrigation. N. Z. J. Agric., Wellington, 133(6):31, 33, 1976.
0360. RICHARDS, M. S. Responses of species in Kalsow Prairie, Iowa, to an April fire. Proc. Iowa Acad. Sci., 80(4):159-61, Dec. 1973.
0361. SAHLSTROM, H. Effects of cutting height, nitrogen level and source on subsequent regrowth in red fescue (*Festuca rubra* L.). Acta Agric. Scand., Stockholm, 27(1):71-6, 1977.
0362. SAKAI, H.; KAWANABE, S. & OKUDA, S. Ecology of weeds in sown pastures. The successional stages and weeds. Kawatabi Farm, Tohoku University, s.d. p.39-46.

0363. SAMPAIO, E. V. S. B.; BEATY, E. R. & ASHLEY, D. A.  
Bahiagrass regrowth and physiological aging.  
J. Range Manage., Baltimore, 29(4):316-9, 1976.
0364. SARUKHĀN, J. Demographic studies on grassland  
weed species. Symp. Br. Ecol. Soc., London,  
13:28-41, 1974. Proceeding de um Simpósio rea-  
lizado em Oxford, 1972.
0365. SHANKAR, V.; VELAYUDHAN, K. C. & TRIVEDI, B. K.  
Pattern of interspecific association in Sehima-  
Heteropogon grasslands under three different  
systems of management. Ann. Arid Zone Res.  
Assoc. India, 14(4):358-66, Dec. 1975.
0366. SHARPLEY, A. N. & SYERS, J. K. Phosphorus trans-  
port in surface run-off as influenced by ferti-  
lizer and grazing cattle. N. Z. J. Sci., Wel-  
lington, 19(3):277-82, 1976

0367. SIEBERT, B. D.; HUNTER, R. A. & JONES, P. N. The utilization by beef cattle of sugarcane supplemented with animal protein, plant protein or non-protein nitrogen and sulphur. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 16(83):789-94, 1976.
0368. SLEPER, D. A. & MOTT, G. O. Digestibility of four digitgrass cultivars under different harvest frequencies. Agron. J., Washington, 68(6):993-4, 1976.
0369. SMITH, D. F. The growth of barley grass (*Hordeum leporinum*) in annual pasture. IV. The effect of some management practices on barley grass content. Australian J. Exp. Agr. Anim. Husb., 8(35):706-711, Dec. 1968.
0370. STODDART, L. A. & SMITH, A. D. Range management. New York, McGraw-Hill, 1955. 433p.

0371. STRITZKE, J. F. & MCMURPHY, W. E. Paraquat for control of cool season annual grass.. Res. Rep.  
Okla. Agric. Exp. Stn., P-705. 16p. 1974.
0372. SWARTZMAN, G. L. & SINGH, J. S. A dynamic programming approach to optimal grazing strategies using a succession model for a tropical grass-land. J. Appl. Ecol., Oxford, 11(2):537-48, 1974.
0373. THOMPSON, A. Herbicide effects on ragwort and pasture. Proc. N. Z. Weed Pest Control Conj., 27:90-3, 1974.
0374. \_\_\_\_\_. The effect of fertilizers and pasture competition on gorse growth and establishment. Proc. N. Z. Weed Pest Control Conf., 27:6-10, 1974.
0375. THORHAUG, A. & AUSTIN, C. B. Restoration of sea-grasses with economic analysis. Environ. Conserv., Lausanne, 3(4):259-67, 1976.

0376. TORSSELL, B. W. R. & McKEON, G. M. Germination effects on pasture composition in a dry monsoonal climate. J. Appl. Ecol., Oxford, 13:593-603, 1976.
0377. TOTHILL, J. C. & JONES, R. M. Stability in sown and oversown Sirato pastures. Trop. Grassl., Brisbane, 11(1):55-65, 1977.
0378. TUDSRI, S. & WHITEMAN, P. C. The effect of cultural treatments on establishment of Macroptilium atropurpureum cv. Sirato oversown in a Setaria anceps sward. Trop. Grassl., Brisbane, 11(1):49-54, 1977.
0379. URBANI, C. B. & KANNOWSKI, P. B. Patterns in the red imported fire ant settlement of a Louisiana pasture; some demographic parameters, interspecific competition and food sharing. Environ. Entomol., College Park, 3(5):755-60, 1974.

0380. URESK, D. W.; CLINE, J. F. & RICKARD, W. H. Impact of wildfire on three perennial grasses in South-central Washington. J. Range Manage., Baltimore, 29(4):309-10, 1976.
0381. \_\_\_\_\_; \_\_\_\_\_; \_\_\_\_\_; LEE, C. A.; RENDALL, L. E.; NELSON, L. F.; COMBS, M. A. & CHARLES, V. D. Impact of wildfire on three perennial grasses in a shrub-steppe ecosystem. Pac. Northwest Lab. Annu. Rep. USERDA Div. Biomed Environ. Res., 1975(Pt.2):190-2, Feb. 1976.
0382. VARTHA, E. M. Management of lucerne overdrilled with "grasslands Tama" Westerwolds ryegrass, on irrigated Wakanui silt loam. N. Z. J. Exp. Agric., Wellington, 4(3):317-20, 1976.
0383. WALKER, B. H. Ecological considerations in the management of semi-arid ecosystems in South-Central Africa. In: INTERNATIONAL CONGRESS OF ECOLOGY, Wageningen, Holanda, 1974. Proceedings., Wageningen, PUDOC, 1974. p.124-9.

0384. WATSCHEK, T. L. Growth regulation of Kentucky bluegrass with several growth retardants. Agron. J., Washington, 68(5):787-91, 1976.
0385. \_\_\_\_\_. & WADDINGTON, D. V. Effect of nitrogen source, rate, and timing on growth and carbohydrates of Merion bluegrass. Agron. J., Washington, 66(5):691-6, 1974.
0386. WEINMANN, H. Some fundation aspects of modern pasture management. Agron. J., Madison, 43(5): 1-9, 1946.
0387. WEST, O. Fire in vegetation and its use in pasture management, with special reference to tropical and sub-tropical Africa. Farnham Royal, Commonwealth Agricultural Bureaux, 1965.

0388. WHYTE, R. O. Analysis and ecological management of tropical grazing lands. Handb. Veg. Sci., 13:1-121, 1977.
0389. WIELING, H. Yield pattern of grassland in terms of farm management. Neth. J. Agr. Sci., Wageningen, 19(2):57-66, 1971.
0390. WIGHT, J. R. Range fertilization in the northern Great Plains. J. Range Manage., Baltimore, 29 (3):180-5, 1976.
0391. WILAIPON, P. & HUMPHREYS, L. R. Grazing and mowing effects on the seed production of Stylosanthes hamata cv Verano. Trop. Grassl., Brisbane, 10(2):107-11, 1976.
0392. WILLIAMS, O. B. & ROE, R. Management of arid grasslands for sheep: plant demography of six grasses in relation to climate and grazing. Proc. Ecol. Soc. Aust., 9:142-56, 1975.

0393. WILMAN, D. The effect of grazing compared with cutting, at different frequencies, on a lucerne-cocksfoot ley. J. Agric. Sci., Cambridge, 88(2):483-92, 1977.

0394. \_\_\_\_\_.; KOOCHEKI, A. & LWOGA, A. B. The effect of interval between harvests and nitrogen application on the proportion and yield of crop fractions and on the digestibility and digestible yield and nitrogen content and yield of two perennial ryegrass varieties in the second harvest year. J. Agric. Sci., Cambridge, 87(1): 59-74, 1976.

0395. \_\_\_\_\_.; \_\_\_\_\_.; \_\_\_\_\_.; DROUSHIOTIS, D. & SHIM, J. S. The effect of interval between harvests and nitrogen application on the numbers and weights of tillers and leaves in four ryegrass varieties. J. Agric. Sci., Cambridge, 87(1):45-57, 1976.

0396. WILMAN, D. & MARES MARTINS, V. M. Senescence and death of herbage during periods of regrowth in ryegrass and red and white clover, and the effect of applied nitrogen. J. Appl. Ecol., Oxford, 14(2):615-20, 1977.
0397. WILSON, D. & WINCH, J. H. Intensive management. Agrologist, 6(2):15, 17, 19, 1977.
0398. WINTER, W. H.; EDYE, L. A.; MEGARRITY, R. G. & WILLIAMS, W. T. Effects of fertilizer and stocking rate on pasture and beef production from sown pastures in northern Cape York Peninsula. I. Botanical and chemical composition of the pastures. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 17(84):66-74, 1977.
0399. WYATT, I. T. Progress towards biological control under grass. Symp. Br. Ecol. Soc., London, 13:294-301, 1974.

0400, YARRIS, L. C. Grasses help fight weed. Agric.  
Res., Washington, 25(4):13, 1976.

0401. YEATES, G. W.; HEALY, W. B.; WIDDOWSON, J. P.;  
THOMSON, N. A. & MacDIARMID, B. N. Effect of  
a soil fumigant on the establishment and growth  
of a grazed pasture on a yellow-brown loam. N.  
Z. J. Agric. Res., Wellington, 19(3):397-403,  
1976.

PASTAGENS CULTIVADAS

0402. AGROCERES, São Paulo. Pastagens consorciadas; um novo enfoque para a pecuária. São Paulo, 1973. 78p.
0403. ANDREAE, B. Farming regions in the tropics; environment, geographical comparisons and socioeconomic development. Handb. Veg. Sci., 13:161-209, 1977.
0404. BECKETT, P. H. T.; WOLLAN, E.; CAWSE, P. A.; HISLOP, J. S. & WILLIAMS, D. R. The use of grasses as indicators of environmental pollution. Plant and Soil, Hague, 49(3):691-5, 1978.
0405. BEETLE, A. A. Zootic disclimax concept. ecology. J. Range Manage., Baltimore, 27(1):30-2, Jan. 1974.
0406. BELL, D. T. Dominance of California annual grass lands by *Brassica nigra*. Amer. Midl. Nat., Notre Dame, 90(2):277-99, Oct. 1973.

0407. BONHAM, D. D. An optimum sampling strategy for plant species. J. Range Manage., Baltimore, 29(2):160-6, 1976.
0408. BRYAN, W. W. Grazing trials on the Wallum of South-Eastern Queensland. II. Complex mixtures under common grazing. Aust. J. Exp. Agr. Anim. Husb., Melbourne, 8(35):683-90, Dec. 1968.
0409. CABALLERO G.-A., R. Ecology and agronomic and nutritive value of species and varieties of pasture interest for Spain. IV. The genera Trifolium and Vicia. R. Pastos, Madrid, 3(1):5-24, 1973.
0410. CAMERON, D. G. Pasture plant introduction in Queensland; continuing need. Trop. Grassl., Brisbane, 11(2):107-9, 1977.
0411. COOK, C. W. Cultural energy expended in range meat and fiber production. J. Range Manage. Baltimore, 29(4):268-71, 1976.

0412. COOPER JUNIOR, W. E. Home range size and population dynamics. J. Theor. Biol., London, 75(3): 327-37, 1978.
0413. COSTA, M. da F. Ecologia de pastagens. Gaz. Agric., Luanda, 18(10):773, 775, 777, 779, 781, Oct. 1973.
0414. COUTURIER, D. E. Rainfall interception in mixed grass prairie. Can. J. Plant Sci., Ottawa, 53 (3):659-63, July, 1973.
0415. DOBSON, S. H. Economic returns from forage fertilization. In: MAYS, D. A. ed. Forage fertilization; proceedings of a symposium, 19., Muscle Shoals, 1972. s.l., American Society of Agronomy, 1974. p.533-8.
0416. FENNER, M. A comparison of the abilities of colonizers and closed-turf species to establish from seed in artificial swards. J. Ecol., Oxford, 66(3):953-63, 1978.

0417. FORBES, M. H. C. Farming and foraging in prehistoric Greece; a cultural ecological perspective. Ann. N. Y. Acad. Sci., 268:127-42, 1976.
0418. GODRON, M.; DAGET, P.; POISSONET, J. & POISSONET, P. Some aspects of heterogeneity in grasslands of Cantal (France). In: INTERNATIONAL SYMPOSIUM ON STAT ECOLOGY, New Haven, 1969. v.3. p.397-415.
0419. HANSON, A. A. The importance of forages to agriculture. In: MAYS, D. A. ed. Forage fertilization; Proceeding of a symposium, 19., Muscle Shoals, 1972. s.l., Crop. Science Society of America, 1974. p.1-16.
0420. HAUSSMANN, G. Forage culture and ecology. Ann. Acad. Agric. Torino, 117:1-26, 1974/75.

0421. HAVARD-DUCLOS, B. Las plantas forrageras tropicales. Barcelona, Blume, 1975. 380p.
0422. HAYCOCK, R. E. & HERRON, R. J. Grazing systems for dairy cows. Agric. North. Ireland, Cookstown, 51(11):288-92, 1977.
0423. HUGHES, R. H. Response of planted south Florida slash pine to simulated cattle damage. J. Range Manage., Baltimore, 29(3):198-201, 1976.
0424. HULL, J. C. & MULLER, C. H. The potential for dominance by *Stypa pulchra* in a California grassland. Amer. Midl. Nat., Notre Dame, 97(1):147-75, Jan. 1977.
0425. IVE, J. R. Growth and competition in annual legume-perennial grass pasture in a dry monsoonal climate. Aust. J. Ecol., Melbourne, 1(3):185-96, 1976.

0426. JACOBS, V. E. An economic approach to forage yield measurement and valuation. In: MAYS, D. A. ed. Forage fertilization; proceedings of a symposium, 19., Muscle Shoals, 1972. s.l., American Society of Agronomy, 1974. p.523-32.
0427. JACQUARD, P. Study of social relations between seven forage species at two trophic levels. In: INTERNATIONAL GRASSLAND CONGRESS, 11., 1970. Proceedings. p.657-62.
0428. KELLY, T. K. Pasture and fodder crops for Central Queensland dairy farms. Queensl. Agric. J., Brisbane, 102(3):273-83, 1976.
0429. KENRICK, M. D. Ecological aspects of range study & improvement in Near East & North Africa. In: INTERNATIONAL GRASSLAND CONGRESS, 11., 1970. Proceedings. p. 13-6.

0430. KHAN, C. M. A. New adjustable, decimal, collapsible quadrat VS three old quadrats- an evaluation. J. Range Manage., Baltimore, 27(1):71-5, Jan. 1974.
0431. KRAUSE, W. ed. Handbook of vegetation science. XIII. Application of vegetation science to grassland husbandry. Hague, W. Junk, 1977. 535p.
0432. LAMBERT, M. G. The influence of aspect on pasture environment. Proc. N. Z. Grassl. Assoc. Conf., 38(1):78-86, 1977.
0433. LEACH, G. J.; JONES, R. M. & JONES, R. J. The agronomy and ecology of improved pastures. B. Commonw. Bur. Pasture Field Crops Commonwealth Agric. Bur., Hurley, 51:277-307, 1976.
0434. LE HOUEROU, H. N. Plant sociology and ecology applied to grazing land research, survey and management in The Mediterranean basin. Handle Veg. Sci., 13: 211-74, 1977.

0435. LOVERA P. C. & CASAS G. G. de las. Ecological sectors in Pedroches Valley and their relation to the improvement of grassland. IN: PASTURE and forage production in seasonally arid climates. Proceedings of the general meeting of the European Grassland Federation, 6., Madrid, 1975. Madrid, Sociedade Espanhola para el Estudio de los pastos, 1975. p. 15-32.
0436. Mc NAUGHTON, S. J. Structure and function in California grassland. Ecology, Brooklyn, 49(5): 962-72, 1968.
0437. MARTEN, G. C.; JORDAN, R. M. & HOVIN, A. W. Biological significance of reed canarygrass alkaloids and associated palatability variation to grazing sheep and cattle. Agron. J. Washington, 68(6): 909-14, 1976.

0438. MAYOR, M.; ANDRES, J.; MARTINEZ, G.; NAVARRO, F. & DIAZ, T. E. Study of pasture for grazing and hay in some areas of the Cantabrian Mountains with special attention to the ecological performance of *Festuca hystrix* Bss. R. Pastos, Madrid, 3(2): 193-208, 1973.
0439. MILLER, R. F. & KRUEGER, W. C. Cattle use on summer foothill rangelands in northeastern oregon. J. Range Manage., Baltimore, 29(5): 367-71, Sept. 1976.
0440. PABOT, H. Report to Government of Iran on pasture development and ecological studies. Rome, FAO, 1967. 129p. (FAO Report, 2311).
0441. PETERSON, R. A. Fisiologia das plantas forrageiras. In: INSTITUTO DE ZOOTECNIA, São Paulo. Fundamentos de manejo de pastagens. São Paulo, Secretaria da Agricultura, Coordenadoria da Pesquisa Agropecuária, 1970. p.23-36.

0442. PETERSON, R. A. O sistema ecológico das pastagens. In: INSTITUTO DE ZOOTECNIA, São Paulo. Fundamentos de manejo de pastagens. São Paulo, Secretaria da Agriculura, Coordenadoria da Pesquisa Agropecuária, 1970. 21-22.
0443. PRATT, J. N. Economic returns from forage fertilization in the Southwest. In: MAYS, D. A. ed. Forage fertilization; proceedings of a symposium, 19., Muscle Shoals, 1972. s.l., American Society of Agronomy, 1974. p. 505-21.
0444. RISSE, P. G. & ZEDLER, P. H. An evaluation of the grassland quarter method. Ecology, Brooklyn, 49(5): 1.006-9, 1968.
0445. ROLIN, F. A.; KÖSTER, H. W.; KHAN, E. J. A. & SAI TO, H. M. Alguns resultados de pesquisas agroecológicas na região de Paragominas, Pará e nordeste de Mato Grosso 1977-1978. Convênio SUDAM/Instituto de Pesquisa IRI. Belém, SUDAM, 1979. 56p.

0446. RUELKE, O. C. Breeding grasses and legumes for use in mixtures. Summary of ecological considerations in relation to the breeding and development of legume cultivars which can be grown in grass-legume mixtures. Proc. South Pasture Crop. Imp. Conf., 35., 1978. p. 98-9.
0447. RUMBALL, P. J. & ESLER, A. E. Pasture pattern on grazed slopes. New Zeal. J. Agr. Res., 11(3): 575-88, Aug. 1968.
0448. SCHAAFHAUSEN, R. V. Métodos económicos para formar e melhorar pastagens com as leguminosas *Dolichos lablab*, guandu e soja perene. FIR, São Paulo, 5(9): 44-8, 1963.
0449. SCHOLL, J. M.; LOBATO, F. J. P. & BARRETO, I. Improvement of pastures by direct seedling into native grass in southern Brazil with oats and with nitrogen supplied by fertilizer or arrow leaf clover. Turrialba, 26(2): 144-9, 1976.

0450. SHENK, J. S. The role of plant breeding in improving the nutritive value of forages. J. Dairy Sci., Lancaster, 60(2): 300-5, 1977.
0451. SMITH, R. C. G. & WILLIAMS, W. A. Deferred grazing of Mediterranean annual pasture for increased winter sheep production. Agric. Syst., 1(1): 37-45, 1976.
0452. SOUTO, S. M. Metodologia da introdução e avaliação de plantas forrageiras tropicais. In: SEMINÁRIO SOBRE METODOLOGIA E PLANEJAMENTO DE PESQUISA COM LEGUMINOSAS TROPICAIS, Campo Grande, M. S., 1970. As leguminosas na agricultura tropical. Rio de Janeiro, s. ed., 1971. p. 249-73.
0453. THERON, E. P. & HARWIN, G. O. The future role of improved pastures for beef cattle. S. Afr. J. Anim. Sci., Pretoria, 6(2): 139-46, 1976.

0454. THOMAS, A. G. & DALE, H. M. Cohabitation of three Hieracium species in relation to the spatial heterogeneity in an old pasture. Can. J. Bot., Ottawa, 54(22): 2.517-29, Nov. 1976.
0455. THORUP, R. M. & Mc VICKAR, M. H. What the future holds for forage. Fort Madison, American Society of Agronomy, 1974. p. 583-605. Published in Forage Fertilization, proceedings of a symposium held in Shoals, 1972.
0456. TORSSELL, B. W. R. Drought resistance effects on species composition of an annual pasture in a dry monsoonal climate. J. Appl. Ecol., Oxford, 13(3): 943-53, 1976.
0457. WIELGOLASKI, F. E. Comparison of plant structure on grazed and ungrazed tundra meadows. In: WIELGOLASKI, F. E. ed. Fennoscandian tundra ecosystems. Pt. I. Plants and microorganisms. New York, Springer-Verlag, 1976. p. 86-93.

0458. WILLIAMS, W. T.; GILLARD, P. & EDYE, L. A. An improved numerical method for the analysis of a floristic pasture survey. Aust. J. Ecol., Melbourne, 1(4): 237-43, 1976.

0459. WOENSBY, C. E. Modified step-point system for botanical composition & basal cover estimates. J. Range Manage., Baltimore, 26(4): 302-3, Ju ly, 1973.

PASTAGENS NATIVAS

0460. BAKER, H. Alluvial meadows: a comparative study of grazed and mown meadows. J. Ecol., Oxford, 25: 408-20, 1937.
0461. BARBERO. M.; BONIN, G. & QUEZEL, P. Sparse mountain grasslands of the areas around the Mediterranean Sea. Phyto-Coenologia, 1(4): 427-59, 1975.
0462. BARTOS, D.L. Root dynamics of a shortgrass ecosystem. Dissert. Abst. Inter. B., Michigan, 33(2): 679, 1972.
0463. BASSETT, P. A. The vegetation of a Camargue pasture. J. Ecol., Oxford, 66(3): 803, nov. 1978.
0464. BENNETT, S. H. Grasslands of the United States. Their economic and ecologic importance; a Symposium of the American Forage and Grassland Council. Ames. American Forage and Grassland Council, 1974. 220p.

0465. BLINN, D. W. & HABECK, J. R. An analysis of mo  
rainal vegetation in the upper blackfoot val  
ley, Montana. Northwest Sci., Washington, 41  
(3): 126-40, Aug. 1967.
0466. BLYDENSTEIN, J. El clima y los pastizales natura  
les en América del Sur. Turrialba, 22(3):258-  
262, 1972.
0467. BORIN, G. & ROUX, M. Utilisation de l'analyse  
factorielle des correspondances dans l'étude  
phyto-ecological de quelques pelouses de l'Ape  
nnin Lucano - Calabrais. Oecol. Plantarum, Pa  
ris, 13(2): 121-38, 1978.
0468. BOUXIN, G. Distribution of species in the herba  
ceous layer in the South of Akagera National  
Park (Rwanda, Central Africa). Oecol. Planta  
rum, Paris, 9(4): 315-32, 1974.
0469. BOWNS, J. E. & WEST, N. E. Blackbrush (*Coleogyne  
remosissima* Torr.) on southwestern Utah ran  
gelands. Res. Rep. Utah Agric. Exp. Stn., 27:  
1-27, Jan. 1976.

0470. BREMAN, H. & CISSE, A. M. Dynamics of sahelian pastures in relation to drough and grazing.  
Oecologia, Berlim, 28(3): 301-15, 1977.
0471. BULLINGTON, R. A. Forest invasion on abandoned pasture land at stronghold in Ogee County, Illinois. Trans. Illinois State Acad. Sci., Springfield, 66(3/4): 60-73, 1979.
0472. BURCHAM, L. T. Climate, structure, and history of California's annual grassland ecosystem.  
In: CALIFORNIA ANNUAL GRASSLAND ECOSYSTEM SYM POSIUM, 3., 1975. p. 16-34.
0473. BUSE, A. Habitats as recording units in ecological survey; a field trial in Caernarvonshire, North Wales. J. App. Ecol., Oxford, 11(2): 517-28, 1974.
0474. CABLE, D. R. Invasion of semidesert grassland by velvet mesquite & associated vegetation changes. J. Ariz. Acad. Sci., Tucson, 8(3): 127-34, Oct. 1973.

0475. CHAPPELL, H. G.; AINSWORTH, J. F.; CAMERON, R. A. D. & REDFERN, M. The effect of trampling on a chalk grassland ecosystem. J. Appl. Ecol., Oxford, 8: 869-82, 1971.
0476. CODIGNOLA, A. & GALLINO, M. Contribution to the botanic and chemico-bromatologic study of some pastures of the Varaita Valley (Cuneo). Ann. Turin Univ. Fac. Med. Vet., Turin, 23:96-111, 1976.
0477. COLORADO STATE UNIVERSITY. Natural Resource Ecology Laboratory, Fort Collins. Analysis of structure function, and utilization of grassland ecosystems. Fort Collins, Colorado State University, 1973. V.2.
0478. CONANT, S. & RISSE, P. G. Canopy structure of a tall-grass prairie. J. Range Manage.; Baltimore, 27(4): 318-8, 1974.
0479. DAUBENMIRE, R. Ecology of fire in grasslands. Adv. Ecol. Res., London, 5: 209-66, 1968.

0480. DAVIS, W. Grassland as a biotic community.  
J. Brit. Grass. Soc., 3(3): 171-6, 1948.
0481. DE GLORIA, S. D.; DAUS, S. J. & THOMAS, R. W.  
The utilization of remote sensing data for a  
multidisciplinary resource inventory and ana-  
lysis within a rangeland environment. Proc.  
Annu. Meet. Amer. Soc. Photogramm. p. 640-59,  
1975.
0482. DICKINSON; C. E. & DODD, J. L. Phenological  
pattern in the shortgrass prairie. Amer. Midl.  
Nat., Notre Dame, 96(2): 367-78, 1976.
0483. DUNCAN, D. A. The San Joaquin Site of the grass-  
sland biome: its relation to annual grassland  
ecosystem synthesis. In: CALIFORNIA ANNUAL  
GRASSLAND ECOSYSTEM SYMPOSIUM, 3., 1975. p. 9-  
15.

0484. FENTONE, E. W. Vegetation changes in hill gra  
zings with particular reference to heather  
*(Calluna vulgaris)*. J. Brit. Grasland. Soc.,  
4: 95-103, 1949.
0485. FISH E. B. Comparisons of phytosociological me  
thods of classification on a desert grassland  
site. Agro-Ecosystems, Amsterdam, 2(3):173-94  
Mar. 1976.
0486. FISHER, H. G. & SHAVER, J. C. Remote sensing  
applied to the grassland biome. Proc. Int.  
Congr. Ecol., 1: 293-5, 1974.
0487. FOIN, T. C. & JAIN, S. K. Ecosystem analysis  
and population biology; lessons for the develo  
pment of community ecology. BioScience, Wa  
shington, 27(8): 532-8, Aug. 1977.
0488. FUENTES, E. R. & LE BOULENG, P. Y. The role of  
predation competition in the dynamics communi  
ty in central Chile. Terre Vie. Soc. Nat'l: Pro  
tect. Nat. Accliru., Paris, 31(2): 313-26, Apr.  
June, 1977.

0489. FUENTES SANCHEZ, C. Ecological panorama of soils & pasture lands of center & west of Spain. Agricultura, Madrid, 42(497): 543-52, Sept. 1973.
0490. GILMANOV, T. G. Plant submodel in the holistic model of a grassland ecosystem. Ecol. Model., 3(2): 149-63, May, 1977.
0491. GOLDSMITH, F. B. Multivariate analyses of tropical grassland communities in Mato Grosso, Brazil. J. Biogeogr., 1(2): 111-22, 1974.
0492. GRUBB, P. J. A theoretical background to the conservation of ecologically distinct groups of annuals and biennials in the chalk grassland ecosystem. Biol. Conserv. Barking, 10(1): 53-76, July, 1976.
0493. GRUNOW, J.O. & MORRIS, J. W. Preliminary assessment of ecological status of plant species in three South Africal veld types. J. S.Afr. Bot. 35(1): 1-11, Jan. 1969.

0494. GUPTA, R. K. Potential grassland types & their ecological succession in Rayasthan desert.  
Amer. Arid. Zone, 11(3/4): 198-218, Sept./Dec. 1973.
0495. ————— & NANDA, P. C. Grassland types & their ecological succession in Western Himalayas.  
In: INTERNATIONAL GRASSLAND CONGRESS, 11., 1970, Proceedings, p. 10-3.
0496. HALVA, E. & LESAK, J. Contribution to the study of synecology of grassland association especially in relation to the anthropogenic factors.  
I. Nutrition of natural grassland association.  
Acta Univ. Agric. Fac. Agron., Brno, 23(1):15-35, 1975. Resumo em inglês.
0497. HERBST, S. N. & ROBERTS, B. R. Quantitative ecological relationships in the Alpine Grassland of Lesotho. Proceed. Grassl. Soc. South. Africa, 9: 61-6, 1974.

0498. HEYTING, A. Discussion and development of point-centred quarter method of sampling grassland vegetation. J. Range Manage., Baltimore, 21 (6): 370-80, Nov. 1968.
0499. HOPINS, H. H. Effect of mulch upon certain factors of the grassland environment. J. Range Managem., Baltimore, 7: 255-8, 1954.
0500. HULL JUNIOR, A. C. Seedling emergence and survival from different seasons and rates of sowing mountain rangelands. J. Range Manage., Baltimore, 27(4): 302-4, 1974.
0501. INNIS, G. S. Grassland simulation model. New York, Spring-Verlag, 1978. 324p.
0502. KARTAWINATA, K. & MUELLER-DOMBOIS, O. Phytosociology and ecology of the natural dry-grass communities on Oahu, Hawaii. Reinwardtia, Bogor, 8(3): 369-494, 1972.

0503. KAUL, R. N. & AL-MUFTI, M. M. Range resources of Iraq. II. A preliminary ecological appraisal of artemisia herba-alba vegetations in Iraq. Baghdad, Institute for Applied Research on Natural Resources, 1974. 29p. (Technical Bulletin, 55).
0504. KERNICK, M. Forrage genetic resources in N.Africa, near and Middle East; a special area of concern. II. Plant. Genet. Res. Newslet., Roma, 33: 9-14, 1978.
0505. KHOANG, T. Seasonal dynamics of masses of aerial and subterranean organs in meadow - steppe plants. Soil Sci. B. Moscow Univ. 30(3/4): 41-4, 1975.
0506. KING, T. J. The plant ecology of ant hills in calcareous grasslands. I. Patterns of species in relation to ant hills in southern England. J. Ecol., Oxford, 65(1): 235-256, Mar. 1977.

0507. KING, T. J. The plant ecology of ant hills in calcareous grasslands. II. Succession on the mounds. J. Ecol., Oxford, 65(1): 257-78, Mar. 1977.
0508. ———. The plant ecology of ant-hills in calcareous grasslands. III. Factors affecting the population sizes of selected species. J. Ecol., Oxford, 65(1): 279-315, Mar. 1977.
0509. ———. & NICHOLSON, J. A. Grasslands of the forest and subalpine zones. In: BURNETT, H.H. ed. The vegetation of Scotland. London, Oliver and Boyd, 1964. p.168-215.
0510. KURKIN, K. A. Systems approach to studies of nitrate regime in grassland biogeocenoses. Ecol. Plant., Paris, 12(1): 23-31, 1977.
0511. LAMBERT, M. G. & ROBERTS, E. Aspect differences in an unimproved hill country pasture. I. Climatic differences. N. Z. J. Agric. Res., Wellington, 19(4): 459-67, 1976.

0512. LANG, R. Vegetation changes between 1943 & 1965 on shortgrass plains of Wyoming. J. Range Manage., Baltimore, 26(6): 407-9, Nov. 1973.
0513. LE FLOCLH, E. Study of the pasture on South Tunisia. I. Phyto-ecological map of Oglat Merteba and Mareth, Scale 1/100.000. Annal. Inst. Nat. Recher. Agron. Tunisie, 46(5): 96, 1973.
0514. LOOMAN, J. Applied phytosociology in the Canadian prairies and parklands. Handb. Veg. Sci., 13: 315-56, 1977.
0515. LUDWIG, I. A.; WHITFORD, W. G.; RODNEY, A. B. & GRIEVE, R. E. An evaluation of transmission line construction on pinon-juniper woodland and grassland communities in New Mexico. J. Environ Manage., 5(2): 127-37, Apr. 1977.
0516. MCKENZIE, D. R. Yields of protein extracted from a range of northern victorian herbage. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 17(85): 268-76, 1977.

0517. Mc LEAN, A. & MARCHAND, L. Grassland ranges in the Southern interior of British Columbia. Ottawa, Duhamel, 1968. 28p. (Canada. Department of Agriculture, Publication, 1319).
0518. MALIN, J.-C. The grassland of North America; prolegomena to its history with addenda and postscript. Gloucester, Mass., P. Smith, 1967. 490p.
0519. MARSHALL; J. K. Effects of stock on microenvironments in Australian rangelands. Washington, Department of Agriculture, 1974. p.167-85. (US. Dep. Agric. Miscellaneos. Publication, 1271).
0520. MENDOZA, V. B. Vegetating Philippine grasslands need ecological approaches. Canopy, 4(6): 5, 15, 1978.
0521. MENKE, J. W. & WILLIAMS, W. A. Annual grassland ecosystem processes; abiotic and autotrophic components. In: CALIFORNIA ANNUAL GRASSLAND ECOSYSTEM SYMPOSIUM 3., 1975. p.35-43.

0522. MOIR, W. H. & TRLICA, M. J. Plant communities and vegetation pattern as affected by various treatments in shortgrass prairies of north-eastern Colorado. Southwestern Nat., 21(3): 359-71, 1976.
0523. MOLINIER, R. & TALLON, G. Underdeveloped regions and grasslands of Camargue. Terre Vie, Paris, 114(4): 423-57, Oct./Dec. 1968.
0524. MONTARD, F. de. Some aspects of competition between spontaneous plants & plants sown in temporary *Dactylis* grassland & *Festuca elatior* in Dore Mountains: Effect of pasture rhythm & nitrogen fertilization. Ann. Agron., Paris, 24(5): 571-84, 1973.
0525. MOORE, R. M. & WILLIAM, J. D. A study of a subalpine woodland - grassland boundary. Aust. J. Ecol., Melbourne, 1(3): 145-53, July, 1976.

0526. MORTON, A. J. Ecological studies of a fixed dune grassland of Newborough Warren, Anglesey.  
I. The structure of the grassland. J. Ecol., Oxford, 62(1): 253-60, 1974.
0527. ———. Ecological studies of a fixed dune grassland at Newbordugh Warren, Anglesey. II. Causal factors of the grassland structure. J. Ecol., Oxford, 62(1): 261-78, 1974.
0528. NGE'THE, J. C. & BOX, T. W. Botanical composition of eland and goat diets on an acaria-grassland community in Kenya. J. Range Manage, Baltimore, 29(4): 290-3, 1976.
0529. NORMAN, M. J. T. The effect of burning and seasonal rainfall on native pasture of Katherine, N. T. Aust. J. Exp. Agr. Animal Husbandry, Melbourne, 9(38): 295-8, 1969.
0530. NUMATA, M. ed. Ecological studies of Japanese grassland; draft of jibs synthesis volume. Tokyo, Chiba University, 1973. 215p.

0531. PERRY, D. A. The effects of weather modification on northern Great Plains grasslands; a preliminary assessment. J. Range Manage., Baltimore, 29(4): 272-8, 1976.
0532. PUTOT, P. Meadow groups of the morez Bois-d'Amont (Jura) region. Phytosociological study and application to the determination of pasture values. Ann. Sci. Univ. Besancon, Ser. 3, Bot., 16: 77-140, 1975.
0533. RAAY, H. G. T. van & LEEUW, P. N. de. Fodder resources and grazing management in savanna environment; an ecosystem approach. Hague, Institute of Social Studies, 1975. 26p. (Occasional Papers, 45).
0534. RAGUSE, C. A. Utilization problems and potential of the California annual grassland ecosystem. In: CALIFORNIA ANNUAL GRASSLAND ECOSYSTEM SYMPOSIUM, 3., 1975. p.59-80.

0535. RIPLEY, E. A. & SAUGIER, B. Biophysics of a natural grassland; evaporation. J. Appl. Ecol., Oxford, 15(2): 459-79, 1978.
0536. RITCHIE, J. T.; RHOADES, E. D. & RICHARDSON, C. W. Calculating evaporation from native grassland watersheds. Transactions Amer. Soc. Agric; Eng., St. Joseph, 19(6): 1.098-103, 1976.
0537. ROBERTS, TM.; ROBSON, T. & CATLING, P. M. Factors maintaining a disjunct community of *Liatris spicata* and other prairie species in Ontario, Canada. Can. J. Bot., Ottawa, 55(5): 593-605, Mar. 1977.
0538. ROUSVOAL, D. Response in binary associations of fine species from a semi-natural grassland. Oecol. Plant., Paris, 8(3): 279-300, 1973.
0539. RZEDOWSKI; J. An ecological and phytogeographical analysis of the grassland of Mexico. Taxon, Utrecht, 24(1): 67,80, Feb. 1975.

0540. SAHAL, R.; ASTHANA, M. & SRIVASTAVA, V. C. Energy conserving efficiency of natural and modified grasslands at Gorakhpur. Curr. Sci., Bangalore, 43(22): 727-9, 1974.
0541. SARUKHAN, J. Demographic studies on grassland weed species. Symp. Br. Ecol. Soc., London, 13: 28-41, 1974. Proceeding de um simpósio realizado em Oxford, 1972.
0542. SCHITOSKEY JUNIOR, F. Annual grassland ecosystem processes; heterotrophic components. In: CALIFORNIA ANNUAL GRASSLAND ECOSYSTEM SYMPOSIUM, 3., 1975. p. 44-58.
0543. SCHMUTZ, E, M. & SMITH, D. A. Successional classification of plants on a desert grassland site in Arizona. J. Range Manage., Baltimore, 29(6): 476-9, Nov. 1976.

0544. SHAW, N. H. Superphosphate and stocking rate effects on a native pasture oversown with Stylo santhes humilis in central coastal Queensland. I. Pasture production. Aust. J. Exp. Agric. Anim. Husb., Melborune, 18(95): 788-99, 1978.
0545. ———. Superphosphate and stocking rate effects on a native pasture oversown with Stylo santhes humilis in central coastal Queensland. II. Animal production. Aust. J. Exp. Agric. Anim. Husb., Melborune, 18(95): 800-7, 1978.
0546. ———. & DALE, M. B. Superphosphate and stocking rate effects on a native pasture oversown with Stylosanthes humilis in central coastal Queensland. III. The balance of native species in the pasture. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 18(95): 808-16, 1978.
0547. SMITH, J. M. B. Vegetation and microclimate of east and west-facing slopes in the grassland of Mount Wilhelm, Papua New Guinea. J. Ecol., Oxford, 65(1): 39-53, Mar. 1977.

0548. SHOJI, S. -I. Ecological studies on the zoysia type grassland. II. Survey of seasonal change in the above - ground standing crop of plants. Reports Inst. Agric. Res. Tohoku, Univ.,, Sendai, 25: 53-64, 1974.
0549. SIMS, P. L. & SINGH, J. S. The structure and function of ten western North American Grassland. IV. Compartmental transfers and energy flow within the ecosystem. J. Ecol., Oxford, 66(3): 983-1.009, 1978.
0550. SLUIJS, H. van der. Native grassland of Mesopotamia region of Argentina. Neth. J. Agr. Sci., Wageningen, 19(1): 3-22, 1971.
0551. SPATZ, G. & MUELLER-DOMBOIS, D. Succession patterns after pig digging in grassland communities on Mauna Loa, Hawaii. Phytocoenologia, 3(2/3): 346-73, 1975.

0552. SPRAGUE, H. B. ed. Grasslands of the United States. Their economic and ecological importance. A symposium of the American Forage and grassland Council. Ames, Iowa States University, 1974. 220p.
0553. STOTT, P. A. The nature and conservation of west Middlesex chalk grassland. London Natur. 47: 11-9, July, 1969.
0554. TORSSELL, B. W. R. Stability of the Townsville stylo annual grass pasture ecosystem on cleared Tippera clay loam. Aust. J. Exp. Agric. Anim. Husb., Melbourne 15: 671-8, 1975.
0555. TSUCHIDA, K. The grassland vegetation in the Fujimidai Heights: a moist grassland in the subalpine zone central Japan. Jap. J. Ecol. 26 (2): 83-9, June, 1976. Resumo em Inglês.
0556. TYLER, G. Current problems. I. Analytical plant ecology with examples from Baltic seashore meadows. Bot. Not., Sueden, 122(1): 130-9, 1969.

0557. ULEMLOVA, B.; FINDEISOVA, M. & DOBROVOLNA, E.  
Carbon and nitrogen budget of some alluvial  
grassland ecosystems. Transac. Intern. Symp.  
Humus et Planta, 6: 459-66, 1975.
0558. VAATNOU, H. Pasture ecology at Beaverlodge. In:  
ANNUAL MEETING CANADIAN SOCIETY AGRONOMY, 13,  
1967. Proceeding. 1967. p.102-3,
0559. VALE, T. R. Presettlement vegetation in the sea  
gebrushgrass area of the Intermountain West.  
J. Range Manage., Baltimore, 28(1): 32-6, 1975.
0560. VENTER, H. J. T. An ecological survey of gras  
sland of Ngoye Forest Reserve, Zululand.  
J. S. Afr. Bot., 37(3): 213-8, July, 1971.
0561. WALKER, B. H.; NORTON, G. A.; CONWAY, G. R.; CO  
MINS, H. N. & BIRLEY, M. A procedure for multi  
disciplinary ecosystem research; with referen  
ce to the South African savanna ecosystem pro  
ject. J. Appl. Ecol., Oxford, 15(2): 481-502,  
1978.

0562. WATT, A. S. Senescence and rejuvenation in ungrazed chalk grassland (grassland B) in breckland; the significance of litter and of moles. J. Appl. Ecol., Oxford, 11: 1.157-71. 1974.
0563. ———. Studies in the ecology of Breckland. IV. The grass-heath, J. Ecol., Oxford, 28: 42-70, 1940.
0564. WILLIAMS, W. A. & WOODMANSEE, R. G. Simulation modeling of the annual grassland ecosystems. In: CALIFORNIA ANNUAL GRASSLAND ECOSYSTEM SYMPOSIUM, 3., 1975. p.81-91.
0565. WEBB, L. J. The identification and conservation of habitat-types in the wet tropical lowlands of North Queensland. Proc. Roy. Soc. Queensland, 78: 59-86, 1966.
0566. WERGER, M. J. A. Applicability of Zurich-Montpellier methods in African tropical and subtropical range lands. Handb. Veg. Sci., 13: 123-45, 1977.

0567. WILLIAMS, J. T. & VARLEY, Y. W. Phytosociological studies of some British grasslands. I. Up-land pastures in Northern England. Vegetatio, Dentaaag, 15(3): 169-88, Nov. 1967.
0568. WILLEMS, J. H. Observations on North-West European limestone grassland communities: Phytosociological and ecological notes on chalk grass of Southern England. Vegetatio, Hague, 104(8): 141-50, 1978.
0569. WOODMANSEE, R. G. Critique and analysis of the grassland ecosystem model Elm. New York, Springer-Verlag, 1978. 324p.
0570. ————— & CLAWSON, W. J. An overview of the annual grassland ecosystem synthesis effort. In: CALIFORNIA ANNUAL GRASSLAND ECOSYSTEM SYMPOSIUM, 3., 1975. p. 1-8.
0571. WRIHT, R. G. & VAN DYNE, G.M. Environmental factors influencing semidesert grassland perennial grass demography. Southwest Nat., 21(3): 259-74, Nov. 1976.

PRODUTIVIDADE PRIMÁRIA

0572. BERNARD, J. M. Seasonal changes in standing crop and primary production in a sedge wetland and an adjacent dry old-field in Central Minne So ta. Ecology, Durham, 55(2): 350-9, 1974.
0573. BILLE, J. C. & POUAPON, H. Ecological investigation of the sahel savanna of northern ferlo, Senegal: plant biomass and primary production. Terre e la Vie, Paris, 26(3): 366-82, 1972.
0574. BLISS, L. C. & MARK, A. F. High-alpine environments and primary production on the Rock and Pillar Range, central Otago, New Zealand. N. Z. J. Bot., Wellington, 12(4): 445-83, 1974.
0575. BRITTON, C. M. Correlation of net aerial primary production with selected environmental parameters in an Andropogon-Paspalum grassland ecosystem. Dissert. Abst. Internat. B, Michigan 37(2): 551-2, 1976.

0576. CARO COSTA, R. & VICENTE CHANDLER, J. Comparative productivity of intensively managed star and guinea grass pastures in terms of milk production in the humid mountain region of Puerto Rico. J. Agric. Univ. Puerto Rico, Rio Piedras, 63(4): 437-42, Oct. 1979..
0577. COCKS, P. S. Potential production of grass and clover monocultures in a Mediterranean - type environment an experimental approach. Aust. J. Agric. Res., Melbourne, 25(6): 835-46, 1974.
0578. COUPLAND, R. T. Producers: III. Rates of dry matter production and of nutrient and energy flow through shoots. Tech. Report Matadir Proj. Univ. Saskatchewan, Saskatoon, (33): 85, 1973.
0579. DASH, M. C.; PATRA, U. C. & THAMBI, A. V. Comparison of primary production of plant material and secondary production of oligochaetes in a tropical grassland of southern Orissa, India. Trop. Ecol., Varanasi, 15: 16-21, 1974.

0580. ENG, P. K.; KERRIGGE, P. C. & MANNETJE, L. T.  
Effects of phosphorus and stocking rate on pasture and animal production from a guinea grass-legume pasture in Johore, Malaysia. I. Dry matter yields, botanical and chemical composition. Trop. Grassl., Brisbane, 12(3): 188-97, 1979.
0581. GEYGER, E. Leaf area and productivity in grasslands. Handb. Veg. Sci., 13: 499-520, 1977.
0582. GILMANON, T. G. Plant submodel in the holistic model of a grassland ecosystem (with special attention to the belowground part). Ecol. Model., 3(2): 149-63, 1977.
0583. GREENE, D. M.; WALTON, D. W. H. & CALLAGHAN, T. V. Standing crop in a Festuca grassland on South Georgia. In: BLISS, L. C. & WIELGOLASKI, F. E. eds. Primary production and production processes, Tundra biome; Proceedings of a Conference, 31., Dublim, 1973. s.l. Tundra Biome Steehing Committees, 1973. p.191-4.

0584. HAGGAR, R. J. The seasonal productivity, quality and response to nitrogen of four indigenous grasses compared with *Lolium perenne*. J. Br. Grassl. Soc., Aberystwyth, 31(4): 197-207, 1976.
0585. HANNA, M. R.; KOZUB, G. C. & SMOLIAK, S. Forage production of sainfoin and alfalfa on dryland in mixed - and alternate - row seedings with three grasses. Can.J. Plant Sci., Ottawa, 57 (1): 61-70, 1977.
0586. JAIN, S. K. Aboveground phytomass and net community, productivity in some tropical (sub-humid) grasslands at Sagar (Madhya Pradesh), India. Int. J. Ecol. Environ. Sci., Jaipur, 2(1): 33-41, Apr. 1976.
0587. KOROBENIKOVA, V. P. Estimation of net primary production of several grassland communities. Sov. J. Ecol., New York, 6(5): 451-3, Sept./Oct. 1975.

0588. LAUENROTH, W. K. & WHITMAN, W. C. Dynamics of dry matter production in a mixed-grass prairie in western North Dakota. Oecologia, Berlin, 27 (4): 339-51, 1977.
0589. LOOMAN, J. Productivity of permanent bromegrass pasture in the parklands of the Prairie Provinces. Can. J. Plant. Sci.; Ottawa, 56(4): 829-35, 1976.
0590. McROY, C. P. Seagrass productivity; carbon uptake experiments in ellgras, *Zostera marina*. Aquaculture, Amsterdam, 4(2): 131-7, 1974.
0591. MARGALEF, R. Limnology for the grassland scientist. In: PASTURE and forage production in seasonally arid climates. Proceedings of the G. General Meeting of the European Grassland Federation, Madrid, 1975. Madrid, Sociedad Espanola para el Estudio de los Pastos, 1975. p.3-8.

0592. MILNER, C. & HUGHES, R. E. Methods for the measurement of the primary production of grassland. Oxford, Balckwell, 1968. (IBP. Handbook, 6).
0593. MISRA, C. M. & MALL, L. P. Production and compartment transfer of dry-matter in a tropical grassland community. Proc. Indian Natl. Sci. Acad. Part B. Biol. Sci., 41(5): 452-7, Oct. 1975.
0594. MOROZOV, V. L. & BELAYA, G. A. Accumulation of solar energy by Kamchatka coarse grass filipendula under various ecological conditions. Soviet. J. Ecol., 9(1): 25-31, 1978.
0595. NG, T. T. & WONG, T. H. Comparative productivity of two tropical grasses as influenced by fertilizer nitrogen and pasture legumes. Trop. Grassl., Brisbane, 10(3): 179-85, 1976.
0596. NUMATA, M. Ecological studies of temperate semi-natural meadows of the world; particularly on primary production. J. Japan. Soc. Grassl. Sci., 22(1): 17-32, 1976.

0597. OSTROWSKI, H. T. Pasture production in a protein extraction system. Proc. N. Z. Soc. Anim. Prod., 36:30-41, 1976.
0598. PERASON, L. C. Primary production in grazed and ungrazed desert communities of eastern Idaho. Ecology, 46: 278-85, 1965.
0599. PHIPPS, R. H.; PAIN, B. F. & MULVANY, P. M. A comparison of the energy output/input relationship for forage maize and grass leys on the dairy farm. Agric. Environ., 3(1): 15-20, 1976.
0600. RICE, E. L. & PARENTI, R. L. Causes of decreases in productivity in undisturbed tall grass prairie. Amer. J. Bot., New York, 65(10): 1.091-7, 1978.
0601. RIES, R. E. Quantitative evaluation of herbage production and site factors on ecologically diverse sagebrush-grass locations in Wyoming. Dissert. Abst. Internat., B, Michigan, 34(8): 3.584, 1974.

0602. ROUND-TURNER, N. L.; SCOTT, R. S. & RADCLIFF, J. E. Seasonal distribution of pasture production in New Zealand. XI. Otago Downland and Tai\_eri Plain (Invermay). N. Z. J. Exp. Agric. Wellington, 4(3):321-8, 1976.
0603. RUSSELL, G. & GRACE, J. The effect of shelter on the yield of grasses in Southern Scotland. J. Appl. Ecol., Oxford, 16(1): 319-30, Apr. 1979.
0604. RUTHERFORD, M. C. Changes of biomass in some perennial grass species. Proc. Grassl. Soc. South Africa, 11: 43-6, 1976.
0605. SÁNCHEZ, M., A. Producción forrajera y calidad nutritiva afectadas por la frecuencia y altura de corte en dos zacates introducidos y tres nativos. Pastizales, Chihuahua, 7(4): 18, 1976.
0606. SCIFRES, C. J.; DURHAM, G. P. & MUTZ, J. L. Range forage production and consumption following aerial spraying of mixed brush. Weed Sci., Ithaca, 25(1): 48-54, 1977.

0607. SINGH, J. S. & MISRA, R. Diversity, dominance, stability and net production in the grassland at Varanasi, India. Can. J. Bot., Ottawa, 47 (3): 425-7, Mar. 1969.
0608. ————— & YADAVA, P. S. Seasonal variation in composition, plant biomass, and net primary productivity of a tropical grassland at Kurukshetra, India. Ecol. Monog., 44(3): 351-76, 1974.
0609. SMITH, D. Influence of temperature on growth of Froker oats for forage. I. Dry matter yield and growth rates. Can. J. Plant Sci., Ottawa, 54 (4): 725-30, 1979.
0610. THOMPSON, J. A.; SHERIDAN, K. P. & HAMILTON, B. A. The effects of rates of stocking with rotational grazing on the productivity of dryland lucerne at Tamworth, New South Wales. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 16 (83): 845-53, 1976.

0607. SINGH, J. S. & MISRA, R. Diversity, dominance, stability and net production in the grassland at Varanasi, India. Can. J. Bot., Ottawa, 47 (3): 425-7, Mar. 1969.
0608. ————— & YADAVA, P. S. Seasonal variation in composition, plant biomass, and net primary productivity of a tropical grassland at Kurukshetra, India. Ecol. Monog., 44(3): 351-76, 1974.
0609. SMITH, D. Influence of temperature on growth of Froker oats for forage. I. Dry matter yield and growth rates. Can. J. Plant Sci., Ottawa, 54 (4): 725-30, 1979.
0610. THOMPSON, J. A.; SHERIDAN, K. P. & HAMILTON, B. A. The effects of rates of stocking with rotational grazing on the productivity of dryland lucerne at Tamworth, New South Wales. Aust. J. Exp. Agric. Anim. Husb., Melbourne, 16 (83): 845-53, 1976.

0611. TOMLINSON, P. B. Vegetative morphology and meristem dependence - the foundation of productivity in seagrass. Aquaculture, Amsterdam, 4 (2): 107-30, 1974.
0612. WALKER, B. Productivity of *Macroptilium atropurpureum* cv. Siratro pastures. Trop. Grassl. Brisbane, 11(1): 79-86, 1977.
0613. WILLIAMSON, P. Above-ground primary production of chalk grassland allowing for leaf death. J. Ecol., Oxford, 64(3): 1.059-75, Nov. 1976.
0614. ZAVITROVSKI, J. Ground vegetation biomass, production, and efficiency of energy utilization in some northern Wisconsin forest ecosystems. Ecology, Brooklin, 57(4): 694-706, 1976.
0615. SIMMERMAN, U. D. & KUCERA, C. L. Effects of composition changes on productivity and biomass relationships in tallgrass prairie. Amer. Midl. Nat., Notre Dame, 97(2): 465-9, Apr. 1977.

RELAÇÃO ANIMAL - PLANTA

0616. ALLEN, W. A. & PIENKOWSKI, R. L. The biology and seasonal abundance of the fruit fly, *Oscinella fruit*, in reed canarygrass in Virginia.  
Ann. Entomol. Soc. Amer., Colombris, 67(4): 539-44, 1974.
0617. CURRY, J. P. & TUOHY, C. F. Studies on the epigaeal microarthropod fauna of grassland swards managed for silage production. J. Appl. Ecol., Oxford, 15(3): 727-41, 1978.
0618. DASH, M. C. & PATRA, U. C. Density, biomass and energy budget of a tropical earthworm population from a grassland site in Orissa, India.  
R. Ecol. Biol. Sol., Paris, 14(3): 461-71, 1977.
0619. \_\_\_\_\_. Wormcaster production and nitrogen contribution to soil by a tropical earthworm population from a grassland site in Orissa, India.  
R. Ecol. Biol. Sol., Paris, 16(1): 79-83, 1979.

0620. DAVIDSON, R. L. Influence of soil moisture and organic matter on scarab damage to grasses and clover. J. Appl. Ecol., Oxford, 6: 237-46, 1969.
0621. DICKSON, I. A. & MACPHERSON, A. The effects on ewes and lambs of grazing pasture containing differing levels of nitrate-nitrogen. J. BR. Grassland. Soc., Aberystwyth, 31(3): 129-34, 1976.
0622. DIXON, G. M.; DYSON, C. B. & GRIMMER, D. C. Insecticides to control soldier fly (*Inopus rubriiceps* Macquart) in pasture. Proc. N. Z. Weed Pest Control Conf., 27:210-4, 1974.
0623. DYER, M. I. & BOKHARI, U. G. Plant-animal interactions; studies of the effects of grasshopper grazing on blue grama grass. Ecology, Brooklyn, 57(4): 762-72, 1976.

0624. FARRELL, J. A. K.; SWEENEY, W. J. & JONES, A. E.  
Plant resistance to the porina caterpillar  
*Wiseana cervinata* ( Lepidoptera: Hepialidae).  
I. Resistance in leaumes and grasses. N. Z. J.  
Agric. Res., Wellington, 17(3): 373-8, 1974
0625. FRENCH, N. R. & GRANT, W. E. Small mammal ener-  
getics in grassland ecosystems. Ecol. Monogr.,  
Durham, 46(2): 201-20, 1976.
0626. GOEBEL, C. J. & BERRY, G. Selectivity of range  
grass seeds by local birds. J. Range Manage.,  
Baltimore, 29(5): 393-5, 1976.
0627. HEWITT, G. B.; BURLESON, W. H. & ONSAGER, J. A.  
Forage bosses caused by the grasshopper *Aulocra-*  
*ra elliotti* on shortgrass rangeland. J. Range  
Manage., Baltimore, 29(5): 376-80, 1976.

0628. HORBER, E. Techniques, accomplishments and potential of insect resistance in forage legumes.  
In: MAXWELL, G. G. & HARRIS, F. A. eds.  
Proceedings of the Summer Institute of Biological Control of Plant Insects and Disease. Manhattan, Dep. Entomol. Kansas State Univ., 1974. p. 312-43.
0629. KING, K. L. & HUTCHINSON, K. J. The effects of sheep stocking intensity on the abundance and distribution of mesofauna in pastures.  
J. Appl. Ecol., Oxford, 13: 41-55, 1976.
0630. . ;———— & GREENSLADE, P. The effects of sheep numbers on associations of Colembola in sown pastures. J. Appl. Ecol., Oxford, 13(3): 731-9, 1976.
0631. LAVIGNE, R. J. Rangeland insect-plant associations on the Pawnee Site. Ann. Entomol. Soc. Amer., Colombris, 69(4): 753-63, July, 1976.

0632. LEATH, K. T. & RATCLIFFE, R. H. The effect of fertilization on disease and insect resistance. In: MAYS, D. A. ed. Forage Fertilization; proceedings of a symposium, 19., Muscle Shoals, 1972. s.l., American Society of Agronomy, 1974. p. 481-502.
0633. LOQUET, M. Study of microbiological activity of a permanent pasture: Haras du Pin; comparison with earthworm activity. R. Ecol. Biol. Sol, Paris, 11(1): 47-65, Jan. 1974.
0634. MACKAY, A. C.; ROWE, G. R. & GUTHRIE, N. C. Evaluation of carbofuran for the control of soldier fly in pasture. Proc. N. Z. Weed Pest Control Conf., 27: 215-21, 1974.
0635. MARSH, G. A. Ecology of the gastropod epifauna of eelgrass in a Virginia estuary. Chesapeake Sci., Solumons Island, 17(3): 182-7, Sept. 1976.

0636. MARSH, R. & CHESTNUTT, D. M. B. Effect of concentrate, dried grass and dried white clover rations on intake, digestibility and liveweight gain by early-weaned lambs. J. Br. Grassland Soc., Aberystwyth, 31(3): 93-7, 1976.
0637. MORRILL; W. L. & SUBER, E. F. Biology and control of *Sphenophorus coesifrons* (Gyllenhal) (Coleoptera: Curculionidae) in bahiagrass. J. Ga. Entomol. Soc., 11(4): 285-8, 1976.
0638. MOWAT, D. J. Factors affecting the abundance of shoot-flies (Diptera) in grassland. J. Appl. Ecol., Oxford, 11: 951- 1974.
0639. ———. The effect of shootfly larvae(Diptera) on grass yield. J. British. Grassl. Soc., Aberystwyth, 29(4): 285-90, 1974.
0640. MURDOCH, C. L.; TASHIRO, H. Host preference of the grass webworm, *Herpetogramma licarsisalis* to warm season turfgrasses. Environ. Entomol., College Park, 5(6): 1.068-70, 1976.

0641. NOWAK, E. Population density of earthworms and some elements of their production in several grassland environments. Ekol. Pol., Varsovia, 23(3): 459-91, 1975.
0642. OLECHOWICZ, E. The role of coprophagous dipterans in a mountain pasture ecosystem. Ekol. Pol., Varsovia, 24(2): 125-65, 1976.
0643. OWENS, R. A. Effects of agriculture upon populations of native passerine birds of an *Abberta fescue* grassland. Can. J. Zool., Ottawa, 51(7): 697-713, July, 1973.
- \*  
0644. PARRISH, G. V. & GERHARDT, R. R. Daily face fly infestation patterns on pastured beef cattle. Tenn. Farm Hom. Sci., Knoxville, 97: 12-3, 1976.
0645. PEDEN, D. G.; DYNE, G. M. van; RICE, R. W. & HANSEN, R. M. The trophic ecology of *Bison bison* L. on shortgrass plains. J. Appl. Ecol., Oxford, 11(2):489-97, 1974.

0646. POTTINGER, R. P. The importance of pasture pests in animal production. Proc. N. Z. Soc. Anim. Prod., 36: 12-22, 1976.
0647. PULLIAM, R. H. Comparative feeding ecology of a tropical grassland finch *Tiaris olivacea*. Ecology, Brooklyn, 54(2): 284-98, 1973.
0648. REES, M. C. & MINSON, D. J. Fertilizer calcium as a factor affecting the voluntary intake, digestibility and retention time of pangola grass *Digitaria decumbens* by sheep. British J. Nutr., London, 36(2): 179-87, 1976.
0649. RIDSDILL SMITH, T. J. Effects of root-feeding by scarabacid larvae on growth of perennial rye grass plants. J. Appl. Ecol., Oxford, 14(1): 73-80, 1977.
0650. SINGH, N. Energy dynamics and feeding ecology of two grasshopper populations in a grassland ecosystem. Dissert. Abst. Intern. B, Michigan, 34(2): 542- 1973.

0651. SOMERFIELD, K. G. & THOMAS, W. P. Australian black scarab. New pasture pest in Canterbury. N. Z. J. Agric., Wellington, 133(4): 7-8, 1976.
0652. STEWART, K. M. A three-dimensional wet sieve for extracting Tipulidae (Diptera) larvae from pasture soil. J. Appl. Ecol., Oxford, 11(2):427-30, 1974.
0653. SUTHERLAND, O. R. & HILLIER, J. R. Olfactory response of *Costelytra zealandica* (Coleoptera: Melolonthinae) to the roots of several pasture plants. N. Z. J. Zool., Wellington, 1(3):365-9, 1974.
0654. THAMBI, A. V. & DASH, M. C. Seasonal changes in numbers and biomass of Enchytraeidae (oligochaeta) population in tropical grassland soils from India. Trop. Ecol., Varanasi, 14: 228-37, 1973.

0655. THAYER, D. W. Microbial response to drougth in a Texas high-plains shortgrass prairie. Appl. Microbiol., Baltimore, 28(5): 700-7, 1974.
0656. YAMASHITA, Y.; JONES, R. M. & NICHOLSON, C. H. L. Feeding of slugs *Deroceras* sp and *Lehmnia nyctelia* on subtropical pasture species, particularly Kenya White clover *Trifolium semipilosum* cv. Safari. J. Appl. Ecol., Oxford, 16(1): 307-18, Apr. 1979.
0657. YEATES, G. W. Earthworm population of a pasture spray-irrigated with dairy sheed effluent. N. Z. J. Agric. Res., Wellington, 19(3): 387-91, 1976.
0658. ———. Effect of fertilizer treatment and stocking rate on pasture nematode populations in a yellowgrey earth. N. Z. J. Agric. Res., Wellington, 19(3): 405-8, 1976.

0659. YEATES, G. W. & RISK, W. H. Annual cycle of root  
nematodes on white clover in pasture. III.  
*Heterodera trifolii* in a yellow-brown earth.  
N. Z. Agric. Res., Wellington, 19(3): 393-6,  
1976.

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PUBLICADAS

Bibliografia Brasileira de Batatinha – EMBRAPA/DID  
Bibliografia de Juta – CPATU  
Bibliografia de Malva – CPATU  
Bibliografia de Industrialização de Frutas – UEPAE/Cascata  
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Bibliografia de Dendê – EMBRAPA/DID  
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Bibliografia de Beterraba Açucareira – UEPAE/Pelotas

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Bibliografia de Doenças de Suínos – CNPSA  
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