

Publications (July 2022)

107. Proux, R., Hill, Michael J. and Laguette, Soizik. (2022) Improved ALMANAC Simulations of Upland Switchgrass Ecotypes in the Northern US. *Agronomy Journal* 1 – 16, <https://doi.org/10.1002/agj2.20970> .
106. Liu, Y., McDonough-MacKenzie C., Primack, R. B., Hill, M. J., Zhang, X., Wang, Z., Schaaf, C. B. (2022). Using Remote Sensing to Monitor the Spring Phenology of Acadia National Park across Elevational Gradients. *Ecosphere* <https://doi.org/10.1002/ecs2.3888> .
105. Hill, M. J. and Guerschman, J-P. (2022). Global trends in vegetation fractional cover: hotspots for change in bare soil and non-photosynthetic vegetation. *Agriculture, Ecosystems & Environment* **324**, 107791 <https://doi.org/10.1016/j.agee.2021.107719>.
103. Hill, M. J. (2021). Remote sensing of savannas and woodlands: Editorial. *Remote Sens.* **13**, 1490 <https://doi.org/10.3390/rs13081490>.
102. Hill, M. J. and Guerschmann, J. P. (2020). The MODIS Global Vegetation Fractional Cover Product 2001-2018: Characteristics of Vegetation Fractional Cover in Grasslands and Savanna Woodlands. *Remote Sens.* **2020**, 12(3), 406; <https://doi.org/10.3390/rs12030406>
101. Guerschman. J-P, Hill, M. J., Leys, J. and Heidenreich, S. (2020). Vegetation cover dependence on accumulated antecedent rainfall in Australia I: Relationships with photosynthetic and non-photosynthetic vegetation fractions. *Remote Sensing of Environment* **240**, 111670.
100. Hill, M. J., Millington, A., Lemons, R. and New, C. (2019). Functional phenology of a Texas Post Oak savanna from a CHRIS Proba time series. *Remote Sens.* **2019**, *11*, 2388. <http://dx.doi.org/10.3390/rs11202388>.
99. Woodgate, W., Suarez, L., van Gorsel, E., Cernusak, L.A., Dempsey, R., Devilla, R., Held, A., Hill, M.J. and Norton, A.J., (2019). tri-PRI: A three band reflectance index tracking dynamic photoprotective mechanisms in a mature eucalypt forest. *Agricultural and Forest Meteorology* **272**, 187-201.

98. Zhou, Qiang, Liu, Shuguang and Hill, Michael J. (2019). A novel method for separating woody and herbaceous time series. *Photogrammetric Engineering & Remote Sensing* 85, 509-520.
97. Guerschmann, J-P. and Hill, M. J. (2018). Calibration and validation of the Australian fractional cover product for MODIS collection 6. *Remote Sensing Letters* 9, 696-705.
96. Jiao, Z., Dong Y., Schaaf C.B., Chen J.M. , Román, M., Wang, Z. , Zhang, H., , Ding, A., Erb, A., Hill, M.J., Strahler, A. (2018). An algorithm for the retrieval of the clumping index (CI) from the MODIS BRDF product using an adjusted version of the kernel-driven BRDF mode. *Remote Sensing of Environment* 209, 594-611.
95. Fore, S. R. and Hill, M. J. (2017). Modeling the potential spatial distribution of native plant communities in Minnesota, USA. *Ecological Informatics* 41, 116-132.
94. Woodgate, W., Armston, J. D., Disney, M., Suarez, L., Jones, S. D., Hill, M. J., Wilkes, P. and Soto-Berelov, M. (2017). Validating canopy clumping retrieval methods using a detailed reconstructed 3D virtual forest and simulated hemispherical photography. *Agricultural and Forest Meteorology* 247, 181-193.
93. Lui, Yan, Michael J. Hill, Xiaoyang Zhang, Zhuosen Wang, Andrew D Richardson, Koen Hufkens, Gianluca Filippa, Dennis D Baldocchi, Siyan Ma, Joseph Verfaillie, Crystal B. and Schaaf (2017). Phenology monitoring of California oak/grass savanna and open grassland cross spatial scales using Phenocam, Landsat, MODIS and VIIRS. *Agricultural and Forest Meteorology* 237, 311-325.
92. Keersmaecker, W de, Lhermitte, S., Hill, Michael J., Tits, L., Coppin, C. And Somers, B. (2017). Spatial and temporal variation of vegetation response to climate anomalies in Australia based on GIMMS NDVI time series between 1983 and 2006. *Remote Sensing* 9(1), 34; doi:[10.3390/rs9010034](https://doi.org/10.3390/rs9010034).
91. Hill, M. J., Zhou, Q., Sun, Q., Schaaf, C. B., and Palace, M., (2017). Relationships between vegetation indices, fractional cover retrievals and the structure and composition of Brazilian cerrado natural vegetation. *International Journal of Remote Sensing* 38, 874-905..

90. Yang, X., Smith, A. M. and Hill, M. J. (2017). Updating the Grassland Vegetation Inventory for Alberta using satellite imagery: Conversion of native grassland to cultivated agriculture. *Canadian Journal of Remote Sensing* 43, 62-78.
- 89 Jiao, Z., Schaaf, C. B., Dong, Y., Roman, M., Hill, M. J., Chen, J. M., Wang, Z., Zhang, H., Saenz, E., Poudyal, R., Gatebe, C., Breon, F-C., Li, X., and Strahler, A. (2016). A method for improving hotspot directional signatures in BRDF models used for MODIS. *Remote Sensing of Environment* 186, 135-151.
88. Woodgate, W., Armston, J.D., Disney, M., Jones, S.D., Suarez, L., Hill, M.J., Wilkes, P., & Soto-Berelov, M. (2016). Quantifying the impact of woody material on leaf area index estimation from hemispherical photography using 3D canopy simulations. *Agricultural and Forest Meteorology* 226, 1-12..
87. Hill, M. J. and Southworth, J. (2016). Special Issue Editorial. Anthropogenic change in savannas and associated forest biomes. *Journal of Land Use Science* 11, 1-6. DOI:10.1080/1747423X.2016.1145949.
86. Hill, M. J., Zhou, Q., Sun, Q., Schaaf, C. B., Southworth, J., Mishra, N., Gibbes, C., Bunting, E., Brandt, T., & Crews, K. A. (2016). Dynamics of the NDVI-SWIR32 vegetation index response in Southern Africa: Implications for retrieval of fractional cover from MODIS data. *International Journal of Remote Sensing* 37, 1476-1503.
85. Zhou, Q., Hill, M. J., Sun, Q. and Schaaf, C. B. (2016). Retrieving understory temporal dynamics in tropical savannas from time series decomposition and linear unmixing of MODIS data. *International Journal of Remote Sensing* 37, 1445-1475.
84. Woodgate, W., Disney, M., Armston, J. D., Jones, S. D., Suarez, L., Hill, M. J., Wilkes, P., Soto-Berelov, M., Haywood, A. and Mellor, A. (2015). Quantifying the impact of woody material and within-crown clumping on estimation of forest canopy gap fraction and leaf area index. *Forest Ecology and Management* 358, 303-320.
83. Southworth, J., Zhu, L., Bunting, E., Ryan, S. J., Herror, H., Waylen, P. R. and Hill, M. J. (2016). Changes in vegetation persistence across global savanna landscapes, 1982-2010. *Journal of Land Use Science* 11, 7-32. DOI: 10.1080/1747423X.2015.1071439.

82. Knudson, . M., VanLooy, J. and Hill, M. J. (2015). Mapping habitat suitability for the western prairie fringed orchid (*Platanthera praecox*) on the Sheyenne national Grassland, North Dakota. *Ecological Indicators* 57, 536-545.
81. Smith, A. M., Hill, M. J. and Zhang, Y. (2015). Estimating ground cover in the mixed prairie grassland of Alberta using Landsat TM imagery. *Canadian Journal of Remote Sensing* 41, 51-66.
80. Woodgate, W., Jones, S., Suarez, L., Hill, M. J., Armston, J., Wilkes, P., Soto-Berelov, M., Haywood, A. and Mellor, A. (2015). Comparing *in situ* instrument performance for leaf area attribution over five diverse forest systems. *Agricultural and Forest Meteorology* 205, 83-95.
79. Fore, S., Overmoe, K. and Hill, M. J. (2015). Grassland conservation in North Dakota and Saskatchewan: status, practices and policies. *Journal of Land Use Science* 10, 298-322.
78. Thulin, S., Hill, M. J., Held, A. A., Jones, S., and Woodgate, P. (2014). Predicting levels of crude protein, digestibility, lignin and cellulose for temperate pastures using hyperspectral image data. *American Journal of Plant Sciences* 5, 997-1019, DOI: 10.4236/ajps.2014.57113.
77. Jiao, Z, Hill, M. J., Schaaf, C. B., et al. (2014). An anisotropic flat index (AFX) to derive archetypal BRDF shapes from MODIS. *Remote Sensing of Environment* 141, 168-187.
76. Hill, M. J. (2013). Vegetation index suites as indicators of vegetation state in grassland and savanna: an analysis with simulated SENTINEL 2 data for a North American transects. *Remote Sensing of Environment* 137, 94 –111.
75. Hill, M. J., Renzullo, L., Guerschman, J-P., Marks, A. and Barrett, D. J. (2013). Use of vegetation index fingerprints from Hyperion data to characterize vegetation states within land cover/land use types in an Australian tropical savanna. *IEEE Journal of Selected Topics in Applied Earth Observation and Remote Sensing* 6, 309-319.
74. Hill, M. J. and Olson, R. (2012). Possible future trade-offs between agriculture, energy production and biodiversity conservation in North Dakota. *Regional Environmental Change*, 13, 311-328.

73. Thulin, S., Hill, M. J., Held, A. A., Jones, S., and Woodgate, P. (2012). Hyperspectral determination of feed quality constituents in temperate pastures: effect of processing methods on predictive relationships from partial least squares regression. *International Journal of Applied Earth Observation and Geoinformation* 19, 322–334.
72. FitzSimons, J., Pearson, C. J., Lawson, C. and Hill, M. J. (2012). Development of land use planning scenarios based on intrinsic characteristics and stakeholder values. *Landscape and Urban Planning* 106, 23– 34.
71. Romsdahl, R. J. and Hill, M. J. (2012). Applying the learning community model to graduate education: linking research and teaching between core courses. *Teaching in Higher Education* DOI:10.1080/13562517.2012.678325.
70. Hill, M. J., Roman, M. O., and Schaaf, C. B. (2012). Dynamics of vegetation indices in tropical and subtropical savanas defined by ecoregions and MODIS land cover. *GeoCarto International* 27, 153-191.
69. Hill, M. J., Roman, M. O., Schaaf, C. B., Hutley, L., Brannstrom, C., Etter, A Hanan, N. P., (2011). Characterizing vegetation cover in global savannas with an annual foliage clumping index derived from the MODIS BRDF Product. *Remote Sensing of Environment* 115, 2008-2024.
68. Atkinson, L. M., Romsdahl, R. J. and Hill, M. J. (2011). Future participation in the Conservation Reserve Program of North Dakota. *Great Plains Research* 21, 203-214.
67. Edirisinghe, A., Hill, M. J., Donald, G. E., Henry, D. and Hyder, M. (2011) Quantitative mapping of pasture biomass using satellite imagery. *International Journal of Remote Sensing* 32, 2699-2724.
66. Harper, R. J., Gilkes, R. J., Hill, M. J. and Carter, D. J. (2010). Wind erosion and soil carbon dynamics in south-western Australia. *Aeolian Research* 1, 129-141.
65. Hill, M. J., FitzSimons, J., and Pearson, C. J.(2009). Creating land use scenarios for city greenbelts using a spatial multi-criteria analysis shell: Two case studies. *Physical Geography* 30, 353-382.
64. Guerschman, Juan Pablo, Hill Michael J., Barrett, Damian J., Renzullo, Luigi, Marks, Alan and Botha, Elizabeth. (2009). Estimating fractional cover of

photosynthetic vegetation, non-photosynthetic vegetation and soil in mixed tree-grass vegetation using the EO-1 and MODIS sensors. *Remote Sensing of Environment* 113, 928-945

63. Hill, M. J., Averill, C., Z. Jiao, C. B. Schaaf and Armston, J. (2008). Relationship of MISR RPV parameters and MODIS directional reflectance indices to vegetation patterns in an Australian tropical savanna. *Canadian Journal of Remote Sensing* 34, (Supplement 2), S247-S267.
62. Schellburg, J., Hill, M. J., Gerhards, R., Rothmund, M. and Braun, M. (2008). Precision agriculture on grassland: applications, perspectives and constraints – a review. *European Journal of Agronomy* 29, 59-71.
61. Woldendorp, G., Hill, M. J., Ball, M. and Doran, R. (2008). Frost in a future climate: modelling interactive effects of warmer temperatures and rising atmospheric [CO₂] on the incidence and severity of frost damage in a temperate evergreen (*Eucalyptus pauciflora*). *Global Change Biology* 14, 1-15.
60. Renzullo, L. J., Barrett, D. J., Marks, A. S., Hill, M. J., Guerschman, J-P., Mu, Q. and Running, S. W. (2008). Application of multiple constraints model-data assimilation techniques to coupling satellite passive microwave and thermal imagery for estimation of land surface soil moisture and energy fluxes in Australian tropical savanna. *Remote Sensing of Environment* 112, 1306-1319.
59. Nightingale, Joanne M., Hill, Michael J., Phinn, Stuart R., Held, Alex A. (2007). Comparison of Australian Tropical rainforest productivity derived from the 3-PG Forest Growth Model and MODIS Productivity Products. *Canadian Journal of Remote Sensing* 33, 278-288.
58. Nightingale, Joanne M., Hill, Michael J., Phinn, Stuart R., Davies Ian, D., Held, Alex A. and Erskine, Peter (2007). Use of 3-PG and 3-PGS to simulate forest growth and above ground carbon accumulation dynamics of Australian tropical rainforests. II. An integrated system for modelling forest growth and scenario assessment within the Wet Tropics Bioregion. *Forest Ecology and Management* 254, 122-133.
57. Nightingale, Joanne M., Hill, Michael J., Phinn, Stuart R., Davies Ian, D., Held, Alex A. and Erskine, Peter (2007). Use of 3-PG and 3-PGS to simulate forest growth and above ground carbon accumulation dynamics of Australian tropical

rainforests. I. Parameterisation and calibration for old-growth, regenerating and plantation forests. *Forest Ecology and Management* 254, 107-121.

56. Hill, M. J., Asner, G. P. and Held, A. A. (2006). Hyperspectral Remote Sensing of Vegetation in Coupled Human-Environment Systems – Societal Benefits and Global Context. *Journal of Spatial Sciences*, 32, 49-66.
55. Harper, R. J., Beck, A. C., Ritson, P., Hill, M. J., Mitchell, C. D., Barrett, D. J., Tomlinson, R. J., and Smettem, K. R. J., (2006). The potential of greenhouse sinks to underwrite improved land management. *Ecological Engineering*, doi:10.1016/j.ecoleng.2006.09.025
54. Hill, M. J., Held, A. A., Leuning, R. Coops, N. C., Huges, D., Cleugh, H. (2006). MODIS spectral signals at a flux tower site: relationships with high resolution data, and flux and light use efficiency measurements. *Remote Sensing of Environment* 103, 351-368.
53. Hill, M. J., Senarath, U., Lee, A., Zeppel, M., Nightingale, J. M., Williams, R. T. and McVicar, T. (2006). Assessment of the MODIS LAI product in Australian ecosystems. *Remote Sensing of Environment* 101, 495-518.
52. Hill, Michael J., Lesslie Robert J., Donohue, Randall, Houlder, Paul, Holloway, Jane, Smyth, Jodie, (2006). Multi-criteria assessment of tensions in resource use at continental scale: A proof of concept with Australian rangelands. *Environmental Management* 37, 712-731.
51. Hill, Michael J., Roxburgh, Stephen H., Carter, J. O. and Barrett, D. J. (2006) Development of a synthetic record of fire probability and proportion of late fires from simulated growth of ground stratum and annual rainfall in the Australian tropical savanna zone. *Environmental Modelling and Software* 21, 1214-1229.
50. Hill, M. J., Roxburgh, S. J., McKeon, G. M., Carter, J. O. and Barrett, D. J. (2006). Analysis of soil carbon outcomes from interaction between climate and grazing pressure in Australian rangelands using Range-ASSESS. *Environmental Modelling and Software* 21, 779-801.
49. Barrett, D. J. , Hill, M. J., Hutley, Lindsay, Beringer, Jason, Xu, Johnny Cook, Garry, Carter, John, Williams, R, (2005). Prospects for improving savanna carbon models using multiple constraints model-data assimilation methods. *Australian Journal of Botany* 55, 689-714.

48. Hill, M. J., Roxburgh, S. H., Carter, J. O. and McKeon, G.M. (2005). Carbon changes in response to grazing, drought and fire in savanna woodlands of Australia: a scenario approach using 100 years of simulated annual fire and grassland dynamics. *Australian Journal of Botany* 53, 715 - 739.
47. Hill, M. J., Ticehurst, C., Lee, J. S., Grunes, M. R., Donald, G. E. and Henry, D. (2005). Integration of optical and radar classifications for mapping pasture type in Western Australia. *IEEE Transactions on Geoscience and Remote Sensing* 43, 1665-1681..
46. Hill, Michael J., Braaten, Robert., Lees, Brian and Veitch, Simon M. (2005). Multi-criteria decision analysis in spatial decision support: the ASSESS analytic hierarchy process and the role of quantitative methods and spatially explicit analysis. *Environmental Modelling and Software* 20, 955-976.
45. Hill, M. J., Donald, G. E., Hyder, M. W. and Smith, R. C. G. (2004). Estimation of pasture growth rates in South Western Australia from NOAA AVHRR NDVI and climate data. *Remote Sensing of Environment* 93, 528-545.
44. Boschma, S. M., Hill, M. J., Scott, J. M. and Rapp, G. G., (2003) Response to moisture and defoliation stresses and traits for resilience of perennial grasses on the Northern Tablelands of New South Wales, Australia. *Australian Journal of Agricultural Research* 54, 903-916.
43. Boschma S.P., Scott, J.M., Hill, M. J., King, J., and J. Lutton (2003). Plant reserves of perennial grasses subjected to drought and defoliation stresses on the Northern Tablelands of New South Wales, Australia. *Australian Journal of Agricultural Research* 54, 819-828.
42. Hill, M. J., (2003). Generating generic response signals for scenario calculation of management effects on carbon sequestration in agriculture: approximation of main effects using CENTURY. *Environmental Modelling and Software*, 18, 899-913.
41. Hill, M. J., Braaten, R. and McKeon G. (2003) A spatial tool for evaluating the effect of grazing land management on carbon sequestration in Australian rangelands *Environmental Modelling and Software*, 18, 627-644.

40. Hill M.J. and Donald, G.E. (2003). Estimating spatio-temporal patterns of agricultural productivity in fragmented landscapes using AVHRR NDVI time series. *Remote Sensing of Environment* **84**, 367-384.
39. Hill, M. J., Donald, G. E., Donnelly, J. R. and Moore, A. D. (2000). Integrating spatial data with a grazing system model: assessing variability of pasture and animal production at a regional scale. *Asian – Australasian Journal of Animal Sciences*, **13**, 128-131.
38. Hill, M. J., Smith, A. M. and Foster, T. C. (2000) Remote sensing of grassland with Radarsat; case studies from Australia and Canada. *Canadian Journal of Remote Sensing* **26**, 285-296.
37. Hill, M. J., Willms, W. D and Aspinall, R. J. (2000). Distribution, abundance and biomass of grassland plants in southern Alberta. *Plant Ecology* **147** 59-76.
36. Hill, M. J., Donald, G. E., Vickery, P. J., Donnelly, J. R. and Moore, A. P. (1999). Combining satellite data with a simulation model to describe spatial variability in pasture growth at a farm scale. *Australian Journal of Experimental Agriculture* **39**: 285-300.
35. Hill, M. J., Vickery, P. J, Furnival, E. P. and Donald, G. E. (1999). Using of NOAA AVHRR NDVI and classified Landsat TM data to describe pastures in the temperate high rainfall zone (HRZ) of Eastern Australia. *Remote Sensing of Environment* **67**: 32-50.
34. Hill, M. J., Vickery, P. J., Furnival, E. P. and Donald, G. E. (1999). Relating radar backscatter to biophysical properties of temperate perennial grassland. *Remote Sensing of Environment* **67**: 15-31.
33. Vickery, P. J., Hill, M. J. and Donald, G. E. (1997). Landsat derived maps for pasture growth status: association of classification with botanical composition. *Australian Journal of Experimental Agriculture* **37**, 547-562.
32. Hill, Michael J., Aspinall, Richard J. and Willms, Walter W. (1997). Knowledge-based and inductive modelling of rough fescue (*Festuca altaica*, *F. campestris* and *F. hallii*) distribution in Alberta, Canada. *Ecological Modelling* **103**, 135-150.

31. Hill, Michael J. (1996). Potential adaptation zones for temperate pasture species as constrained by climate: A GIS-based modelling approach. *Australian Journal of Agricultural Research* **47**, 1095-1117.
30. Hill, M. J., Donald, G. E., Vickery, P. J. and E. P. Furnival (1996). Integration of satellite remote sensing, simple bioclimatic models and GIS for assessment of pasture suitability for a commercial grazing enterprise. *Australian Journal of Experimental Agriculture* **36**, 309-321.
29. Hill, M. J. (1996). Defining the white clover zone in eastern Australia using a model and a GIS. *Ecological Modelling* **86/2-3**, 245-252.
28. Major, D. J., Smith, A. M., Hill, M. J., Willms, W. D., Brisco, B. and Brown, R. J. (1994). Seasonal radar backscatter and visible infrared reflectance of a short-grass prairie. *Canadian Journal of Remote Sensing* **20**, 71-77.
27. Smith, A. M., Major, D. J., Hill, M. J., Willms, W. D., Brisco, B., Lindwall, C. L. and Brown, R. J. (1994). Airborne synthetic aperture radar analysis of rangeland revegetation of a mixed prairie. *Journal of Range Management* **47**, 385-391.
26. King, J. R., Hill, M. J. and Willms, W. D. (1998). Temperature effects on regrowth of *Festuca altaica*, *F. campestris* and *F. hallii*. *Journal of Range Management*. **51**: 463-468.
25. Hill, M. J., Mulcahy, C. and Rapp, G. G. (1996). Perennial legumes for the high rainfall zone of eastern Australia. II. Persistence and potential adaptation zones. *Australian Journal of Experimental Agriculture* **36**, 165-175.
24. Hill, M. J., Mulcahy, C. and Rapp, G. G. (1996). Perennial legumes for the high rainfall zone of eastern Australia. I. Evaluation in single rows and selection of superior Caucasian clover material. *Australian Journal of Experimental Agriculture* **36**, 151-163.
23. Hill, M. J. and Mulcahy, C. (1995). Seedling vigour and rhizome development in *Trifolium ambiguum* M. Bieb. (Caucasian clover) as affected by density of companion grasses, fertility, drought and defoliation in the first year. *Australian Journal of Agricultural Research* **46**, 807-19.

22. King, Jane R., Hill, Michael J. and Willms, Walter D. (1995). Growth response of *Festuca altaica*, *Festuca hallii* and *F. campestris* to temperature. *Canadian Journal of Botany* **73**, 1074-80
21. Hill, M. J., Hockney, M. J., Mulcahy, C. A. and Rapp, G. G. (1995). The effect of season, cyanide concentration and morphology on the relative acceptability to sheep of white and Caucasian clover herbage. *Grass and Forage Science* **50**, 1-9.
20. Duarsa, M. A. P., Hill, M. J. and Lovett, J. V. (1993). Soil moisture and temperature affect tannin concentration and growth of *Lotus corniculatus* and *Lotus pedunculatus*. *Australian Journal of Agricultural Research* **44**, 1667-81.
19. Hill, M. J. and Hoveland, C. S. (1993). Moisture stress and defoliation influence competition in mixtures of white clover, birdsfoot trefoil and Caucasian clover with tall fescue. *Australian Journal of Agricultural Research* **43**, 1135-45.
18. Chen Wen, Hill, Michael J, and Blair, G. J. (1993). African clovers and miscellaneous legumes on the Northern Tablelands of NSW. *Australian Plant Introduction Review* **23** (1): 1-9.
17. Hill M. J. and Gleeson A. C. (1991). Competition between Clare and Seaton Park, and Clare and Daliak subterranean clovers in replacement series mixtures in the field. *Australian Journal of Agricultural Research* **42**: 161-73.
16. Hill M. J. (1991). Sward growth of monocultures and binary mixtures of phalaris, lucerne, white clover, and subterranean clover under two defoliation regimes. *Australian Journal of Experimental Agriculture* **31**: 51-61.
15. Hill M. J. and Luck R. (1991). The effect of temperature on germination and seedling growth of temperate perennial pasture legumes. *Australian Journal of Agricultural Research* **42**: 175-89.
14. Hill, M. J. (1990). Herbaceous temperate perennial legumes: in praise of diversity. *Australian Plant Introduction Review* **21** (2): 15-24.
13. Oram R. N., Ridley A. M., Hill M. J., Hunter J., Hedges D. A., Standen R. L. and Bennison L. (1990). Improving the tolerance of *Phalaris aquatica* L. to soil acidity by introgression of genes from *Phalaris arundinacea* L.. *Australian Journal of Agricultural Research* **41**: 657-68.

12. Hill M. J. and Gleeson A. C.(1990). Competition between white clover (*Trifolium repens*) and subterranean clover (*Trifolium subterraneum*) in binary mixtures in the field. *Grass and Forage Science* **45**: 373-82.
11. Wheeler, J. L. and Hill, M. J. (1990). Shrub/arboreal legumes for forage in temperate Australia. *Australian Plant Introduction Review* **21**: 1-5.
10. Hill M. J. and Watson R. W. (1989). The effect of differences in intensity and frequency of defoliation on the growth of Sirolan phalaris in the field. *Australian Journal of Agricultural Research* **40**: 345-352.
9. Hill M. J. (1989). The effect of differences in intensity and frequency of defoliation on the growth of *Phalaris aquatica* L. and *Dactylis glomerata* L.. *Australian Journal of Agricultural Research* **40**: 333-343.
8. Hill M. J. (1989). Growth of *Trifolium repens* L. and *Trifolium semipilosum* Fres. var. *glabrescens* Gillet at different temperatures in controlled environments and in the field. *Grass and Forage Science* **44**: 125-137.
7. Hill M. J. and Gleeson A. C. (1988). Competition among seedlings of phalaris, subterranean clover and white clover in diallel replacement series mixtures. *Grass and Forage Science* **43**: 411-420.
6. Hill M. J., Kay, G. and Yeates, S.J. (1985). A comparison of the growth of seedlings of Mediterranean and temperate tall fescues with phalaris and annual ryegrass. *Australian Journal of Experimental Agriculture* **25**: 818-823.
5. Hill M. J. (1985). Direct-drilling tall fescue (*Festuca arundinacea* Schreb.), prairie grass (*Bromus catharticus* Vahl) and Italian ryegrass (*Lolium multiflorum* Lam.) into kikuyu and paspalum pastures. *Australian Journal of Experimental Agriculture* **25**:806-817.
4. Hill M. J., Pearson C. J. and Campbell L. C. (1985). Growth of seedlings of prairie grass tall fescue in small swards of kikuyu at different temperatures. *Australian Journal of Agricultural Research* **36**: 213-220.
3. Hill M. J., Pearson C. J. and Kirby A. C. (1985). Germination and seedling growth of prairie grass, tall fescue and Italian ryegrass at different temperatures. *Australian Journal of Agricultural Research* **36**: 13-24.

2. Hill, M. J. and Pearson C. J. (1985). Primary growth and regrowth responses of temperate grasses to different temperatures and cutting frequencies. *Australian Journal of Agricultural Research* **36**: 25-34.
1. Hill, M. J. and Lamp, C.A. (1980). Use of pulverised fuel ash from Victorian brown coal as a source of nutrients for a pasture species. *Australian Journal of Experimental Agriculture and Animal Husbandry* **20**: 377-384.

Book Chapters

Published

15. Hill, M. J. (2021). Remote sensing of savannas and woodlands: Editorial. In Hill, Michael J. (ed) *Remote Sensing of Savannas and Woodlands* (MDPI, Basel, Switzerland) pp 1-6.
14. Hill, M. J. and Guerschmann, J. P. (2020). The MODIS Global Vegetation Fractional Cover Product 2001-2018: Characteristics of Vegetation Fractional Cover in Grasslands and Savanna Woodlands. In Hill, Michael J. (ed) *Remote Sensing of Savannas and Woodlands* (MDPI, Basel, Switzerland) pp 7-36.
13. Hill, M. J., Millington, A., Lemons, R. and New, C. (2019). Functional phenology of a Texas Post Oak savanna from a CHRIS Proba time series. In Hill, Michael J. (ed) *Remote Sensing of Savannas and Woodlands* (MDPI, Basel, Switzerland) pp 229-250.
12. Hill, M. J.(2014). “Savanna Biome.” In Oxford Bibliographies in Ecology. Ed. David Gibson, New York: Oxford University Press, (in press). Peer reviewed by 2 independent reviewers .
11. Hill, Michael J. and Hanan, Niall P. (2011). Current approaches to measurement, remote sensing and modelling in savannas: a synthesis. In, Hill, Michael J. and Hanan, Niall P. eds (2011). *Ecosystem Function in Savannas: Measurement and Modeling at Landscape to Global Scales*. (CRC Press, Boca Raton, Florida) pp 515-545.
10. Hill, Michael J., Roman, Miguel O. and Schaaf, Crystal B. (2011) Biogeography, Ecology and Dynamics of Global Savannas: A Spatio-Temporal View. In, Hill, Michael J. and Hanan, Niall P. eds (2011). *Ecosystem Function in*

Savannas: Measurement and Modeling at Landscape to Global Scales. (CRC Press, Boca Raton, Florida) pp 3 - 37.

9. Nightingale, J., Phinn, S. R., Hill, M.J (2011). Remote sensing for monitoring and modelling biogeographical change. In: M. Blumler, G. MacDonald, A. Millington and U. Schickhoff (Editors). *Handbook of Biogeography* SAGE Publications, London.
8. Ball, Marilyn C. and Hill, Michael J. (2009). Elevated atmospheric CO₂ concentrations enhance vulnerability to frost damage in a warming world. In, Proceedings of the 8th International Plant Cold Hardiness Seminar, Saskatoon, Canada. CABI, Oxfordshire, UK, pp. 183-189.
7. Lesslie, R.G., Hill, M.J., Hill, P., Cresswell, H.P. and Dawson, S. (2008) The Application of a Simple Spatial Multi-Criteria Analysis Shell to Natural Resource Management Decision Making, in *Landscape Analysis and Visualisation: Spatial Models for Natural Resource Management and Planning*, (Eds. Pettit, C., Cartwright, W., Bishop, I., Lowell, K., Pullar, D. and Duncan, D.), Springer, Berlin, pp 73-96.
6. Aspinall, R. J. and Hill, M. J. (2008). Introduction. In: Richard J. Aspinall and Michael J. Hill (Editors). *Land use change: science, policy and management*. CRC Press, Boca Raton, Florida. pp. xxi-xxv.
5. Hill, M. J. (2008). Developing spatially dependent procedures and models for multi-criteria assessments: place, time and decision making related to land use change. In: Richard J. Aspinall and Michael J. Hill (Editors). *Land use change: science, policy and management*. CRC Press, Boca Raton, Florida. pp. 17-40.
4. Hill, M. J. and Aspinall, R. J (2008). Synthesis, Comparative Analysis, and Prospect. In: Richard J. Aspinall and Michael J. Hill (Editors). *Land use change: science, policy and management*. CRC Press, Boca Raton, Florida. pp. 163-178.
3. Hill, M. J. (2004). Grazing agriculture – Managed Pasture, Grassland and Rangeland. In S. L. Ustin (ed.) *Manual of Remote Sensing, Volume 4, Remote Sensing for Natural Resource Management and Environmental Monitoring*, (Wiley International, New York) 768 pp.
2. Hill, M. J. (2000). Applications for spatial information in monitoring and management of grasslands. In M. J. Hill and R. J. Aspinall (eds) *Spatial*

Information for Land Use Management, pp.113-128 (Gordon and Breach Overseas Publishing Associates, Reading - now Taylor and Francis).

1. Aspinall, R. J. and Hill, M. J. (2000). Introduction: Spatial Information for Land Use Management. In M. J. Hill and R. J. Aspinall (eds) *Spatial Information for Land Use Management*, pp.1-9 (Gordon and Breach Overseas Publishing Associates, Reading).

Books Edited

Hill, Michael J. ed. (2021). Remote Sensing of Savannas and Woodlands.(MDPI, Basel, Switzerland) 273 pp. <https://doi.org/10.3390/books978-3-0365-1956-2>.

Hill, Michael J. and Hanan, Niall P. eds (2011). Ecosystem Function in Savannas: Measurement and Modeling at Landscape to Global Scales. (CRC Press, Boca Raton, Florida) 559 pp.

Aspinall, Richard J. and Hill, Michael J. eds (2008). Land Use Change: Science, Policy and Management. (CRC Press, Boca Raton, Florida) 185 pp.

Hill, M. J. and Aspinall, R. J. eds. (2000). Spatial Information for Land Use Management. (Gordon and Breach OPA, Reading) 224 pp.

Bibliographies

Hill, Michael J.. “Savanna Biome.” In Oxford Bibliographies in Ecology. Ed. David Gibson. New York: Oxford University Press, forthcoming (2022).

Special Publications

Lesslie, R., Hill, M.J., Woldendorp, G., Dawson, S. and Smith, J. (2006). Towards Sustainability for Australia’s Rangelands: Analysing the Options, Australian Government, Bureau of Rural Sciences, Canberra.

Donohue, R., Hill, M. J., Holloway, J., Houlder, P., Lesslie, R., Smith, J. and Thackway, R.. (2005). Australia’s Rangelands: an analysis of natural resources, patterns of use and community assets. Bureau of Rural Sciences, Commonwealth of Australia.

Hill, M. J., Braaten, R., McKeon, G., Barrett, D., Dyer, R. and seven others (2002). Range-ASSESS: A spatial framework for analysis of potential for carbon sequestration in rangelands. Technical Publication No. 1, CRC for Greenhouse Accounting, ANU, Canberra, 43 pp.

Conference Proceedings

68. Cherie L. New, Michael J. Hill and Rebecca E. Lemons (2015). Using birds as indicators of biodiversity status for two North Dakota counties. 100th Ecological Society of America Annual meeting, August 9 – 14, 2015, Baltimore, Maryland.
67. Rebecca E. Lemons, Michael J. Hill and Cherie L. New. (2015). Characterizing a landscape using ecological sites and remote sensing. 100th Ecological Society of America Annual meeting, August 9 – 14, 2015, Baltimore, Maryland.
66. Seth Fore and Michael J. Hill (2015). Mapping the potential extent of native plant communities in Minnesota: linking land use with ecosystem function. 100th Ecological Society of America Annual meeting, August 9 – 14, 2015, Baltimore, Maryland.
65. Hill, M. J. and Smith, A. M. (2014). Sentinel 2 Science for rangeland applications: A case study from Alberta Canada. Proceedings of the Sentinel 2 for Science Symposium, ESA-ESRIN, Frascati, Italy, 20-22 May 2014, CDROM, 8pp (reviewed)
64. Woodgate, W., Soto-Berelov, M., Suarez, L., Jones, S. , Hill, M. J., Wilkes, P., Axelsson, C., Haywood, A. and Mellow, A. (2012). Searching for the optimal sampling design for measuring LAI in an upland rainforest. GSR Conference, RMIT University, December, 2012, 12 pp.(reviewed)
63. Hill, M. J., Lemons, R. and Zhou, Q. (2012). State and transition modeling with remote sensing: a synergistic future for MODIS, VIIRS and SENTINEL 2. Proceedings of the Sentinel 2 Preparatory Symposium, ESA-ESRIN, Frascati, Italy, 23-27 April, CDROM, 8pp (reviewed)
62. Zhang, Y., Smith, A. M. and Hill, M. J. (2011). Estimating biomass of mixed prairie grasslands from satellite remote sensing imagery. Proceedings of the Canadian Remote Sensing Symposium, Saskatoon, Saskatchewan, July 2011.

61. Zhang, Y., Smith, A. M., Hill, M. J. Larson, G. and Kloppenburg, C. (2011). Combining ground and satellite remote sensing measurements for quantifying grassland cover components. Proceedings of the Canadian Remote Sensing Symposium, Saskatoon, Saskatchewan, July 2011.
60. Smith, A. M., Hill, M. J. and Zhang, Y. (2011). Estimating native grassland productivity using a simple light use efficiency model. Proceedings of the Canadian Remote Sensing Symposium, Saskatoon, Saskatchewan, July 2011.
59. Zhang, Y., Smith, A. M. and Hill, M. J. (2011). Estimating biomass of mixed prairie grasslands from satellite remote sensing imagery. Proceedings of the 34th International Symposium on Remote Sensing of Environment, April 10-15, 2011, Sydney, Australia.
58. Hill, M. J., Hanan, N. P., Hoffmann, W., Scholes, R., Prince, S., Ferwerda, J., Lucas, R. M., Baker, I., Arneth, A., Higgins, S., Barrett, D. J., Disney, M. and Hutley, L. (2011). Remote Sensing and Modeling of Savannas: The State of the Dis-Union. Proceedings of the 34th International Symposium on Remote Sensing of Environment, April 10-15, 2011, Sydney, Australia, 6 pp.
57. Hanan, N. P. and Hill, M. J. (2010). Challenges and opportunities for improved remote sensing and modeling of global savannas. In, Earth Observation for Land-Atmosphere Interaction Science, Proceedings of the ESA, iLEAPS, EG Joint Conference, 3-5 November 2010, Frascati, Italy. CDROM, 8 pp.
56. Laguette, S. and Hill, M. (2008). Identifying and mapping potential land for switchgrass production in North Dakota. Proceedings of the World Renewable Energy Congress 2008, 19-25 July, Glasgow, Scotland.
55. Hill, M. J., FitzSimons, J., Pearson, C. J. and Crews, K. A. (2008). Creating land use scenarios for city greenbelts using a spatial multi-criteria analysis shell. Association of American Geographers, Annual Meeting, April 2008, Boston, MA, Abstract 18032.
54. Barrett, D. J., Renzullo, L. J., Guerschman, J-P. and Hill, M. J. (2007). Multi-sensor model-data assimilation for improved savanna carbon and water budgets. EOS Transactions AGU, 88(52), Fall Meeting Supplement, Abstract B21B-08.

53. Zhang, X, Berhane, T., Hill, M. and Rundquist, B. (2007). Remote sensing of heat fluxes using SEBAL: Comparison between Landsat and MODIS. EOS Transactions AGU, 88(52), Fall Meeting Supplement, Abstract B13D-1520.
52. Guerschman, J-P., Hill, M. J., Barrett, D. J., Renzullo, L., Marks, A. And Botha, E. (2007). Estimating fractional cover of photosynthetic vegetation, non-photosynthetic vegetation and soil in savannas using the EO-1 Hyperion and MODIS sensors. EOS Transactions AGU, 88(52), Fall Meeting Supplement, Abstract B23C-1491.
51. Hill, M. J. and Hanan, N. P. (2007). Frameworks, schemes and hierarchies for reducing uncertainties in estimation of carbon dynamics in tree-grass systems. EOS Transactions AGU, 88(52), Fall Meeting Supplement, Abstract B23C-1490.
50. Thulin, S. M., Held, A. A. and Hill, M. J. (2006). Analysis of temperate pasture quality using spectrometer data captured at different resolutions. Proceedings of the 13th Australasian Remote Sensing and Photogrammetry Conference, Canberra, November, 2006, CDROM.
49. Hill, M. J., Lesslie, R., Barry, A. and Barry, S. M. (2005). A simple, portable, spatial multi criteria analysis shell – MCAS-S. MODSIM 2005, International Symposium on Modelling and Simulation, University of Melbourne, 12-15 December, 2005, CDROM.
48. Harper , R.J., Beck, A.C., Barrett, D.J., Hill, M.J., Tomlinson R.J., and Ritson P. (2004). The potential of greenhouse sinks to underwrite improved land management: a case study from Western Australia. ISCO 2004 - 13th International Soil Conservation Organisation Conference – Brisbane, July 2004.
47. Thulin, Susanne, Hill, Michael J., Held, Alex, Saul, G. and Woodgate. P.. (2004). Spectral sensitivity to carbon and nitrogen content in diverse temperate pastures of Australia. International Geoscience and Remote Sensing Symposium, Proceedings, Fairbanks, Alaska, October 2004, CDROM..
46. Held, A. A., Hill, M. J., Leuning, R., Coops, N., Huges, D., Cleugh H. (2003). Using Hyperspectral and Multispectral Imagery at a Range of Scales to Characterise Biophysical Constraints to Carbon Dynamics at a CO₂ Flux Tower Site. *Proceedings of the 30th International Symposium on Remote Sensing of Environment*, Hawaii, November 2003, CDROM..

45. Harper, R. J., Gilkes, R. J., Hill, M. J., and Carter, D. J. (2002). The incidence of wind erosion as related to soil properties and geomorphic history in south-western Australia. In Proceedings '2002 International Conference on Wind Erosion and Aeolian Processes. ICAR 5 and GCTE-SEN,' Lubbock, Texas, 22-25 July 2002.
44. Thulin, S., Hill, M. J., and Held, A. (2002). Hyperspectral detection of pasture condition and chemical properties within management and fertility treatments on a dairy farmlet experiment in eastern Victoria, Australia. In, *International Symposium on Remote Sensing of Environment, Proceedings*, International Society for Remote Sensing of Environment, Buenos Aires, Argentina, CDROM.
43. Nightingale, J, Phinn, S., Hill, M. J., Held, A. and Coops, N. (2002). Integrating ecosystem process models and remotely sensed data to map carbon fluxes within tropical forest environments. In, *International Symposium on Remote Sensing of Environment, Proceedings*, International Society for Remote Sensing of Environment, Buenos Aires, Argentina, CDROM.
42. Edirisinghe, A., Donald, G. E., Hill, M. J., Hyder, M., Smith, R. C. G. and Henry, D. (2002). A system for provision of timely biomass and growth rate estimates for precision management of the feed supply in annual pastures of Western Australia. In, *International Symposium on Remote Sensing of Environment, Proceedings*, International Society for Remote Sensing of Environment, Buenos Aires, Argentina, CDROM.
41. Hill, M. J., Lee, J. S., Donald, G. E. and Henry, D. (2002). Multifrequency SAR analysis of vegetation types and biomass for annual and perennial pastures in Western Australia. In, *International Symposium on Remote Sensing of Environment, Proceedings*, International Society for Remote Sensing of Environment, Buenos Aires, Argentina, CDROM.
40. Ranatunga, K., Hill, Michael J., Probert, M. E. and Dalal, R. C. (2001). Comparative application of APSIM, RothC and CENTURY to predict soil carbon dynamics. In *MODSIM2001*, International Congress on Modelling and Simulation, ANU, Canberra, November 2001, edited by F. Ghassemi, P. Whetton, R. Little and M. Littleboy, Modeling and Simulation Society of Australia and New Zealand, Canberra, Vol. 2, pp 733-738.
39. Hill M. J., Braaten, R. and Ainslie, H. (2001). A spatial framework and signal transfer approach to scenario analysis of management effects on carbon

sequestration in pasture and cropping systems on Northern NSW. In *MODSIM2001*, International Congress on Modelling and Simulation, ANU, Canberra, November 2001 edited by F. Ghassemi, P. Whetton, R. Little and M. Littleboy, Modeling and Simulation Society of Australia and New Zealand, Canberra, Vol. 2, pp. 745-750.

38. Hill, M. J., Braaten, R. and McKeon G. (2001) A spatial tool for evaluating the effect of grazing land management on carbon sequestration in Australian rangelands, In *MODSIM2001*, International Congress on Modelling and Simulation, ANU, Canberra, November 2001 edited by F. Ghassemi, P. Whetton, R. Little and M. Littleboy, Modeling and Siumulation Society of Australia and New Zealand, Canberra, Vol. 2, pp. 739-744 .
37. Aspinall, R. J. and Hill, M. J. (2000). Urban growth – analysis, modelling and prediction of past, present and future land use changes in Gallatin Valley, Montana (1860-2010). In *4th International Conference on Integrating GIS and Environmental Modelling (GIS/EM4)*, Problems, Prospects and Research Needs, Banff, Alberta, Canada, September 2-8, 2000.
36. Edirisinghe, A., Hill M. J., Donald, G. E., Hyder, M., Warren, B. and Wheaton G. A. (2000). Estimating feed-on-offer and pasture growth rate using remote sensing. In, *Proceedings of the 10th Australasian Remote Sensing and Photogrammetry Conference*, Adelaide, August 21-25, CDROM.
35. Simpson, R., Donnelly, J., Graham, P., Salmon, L., Moore, A. and Hill, M. J. (2000). Using technology to improve the sustainability of grazing systems in high rainfall landscapes. In, *Emerging Technologies in Agriculture, Conference*, July 2000, Bureau of Rural Sciences, Barton pp. 86-98.
34. Hill, M. J., Donald, G. E., Donnelly, J. R. and Moore, A. D. (2000). Integrating spatial data with a grazing system model: assessing variability in pasture and animal production at a regional scale. *Proceedings of the Ninth Animal Science Congress of the Asian-Australian Association of Animal Production Societies. University of New South Wales, July, 2000.*
33. Smith, Anne M., Hill, Michael J. and F (1998). Radarsat for grassland monitoring in Canada and Australia. *Proceedings of the Final Radarsat ADRO Symposium*, Montreal, Canada, October, 1998.

32. Hill, Michael J. (1998). Classification of pasture and grassland with Radarsat data. *Proceedings of the 9th Australasian Remote Sensing and Photogrammetry Conference*, UNSW, Sydney, July, 1998.
31. Hill, Michael J., Donald, Graham E., Wheaton, G. A., Hyder, M. and Smith, Richard C. G. (1998). Remote sensing for precision pasture management in South Western Australia. *Proceedings of the 9th Australasian Remote Sensing and Photogrammetry Conference*, UNSW, Sydney, July, 1998.
30. Hill, Michael J., Donald, Graham E. and Smith, Richard C. G. (1998). NDVI-based phenological indices; predictive potential for grazing systems. *Proceedings of the 9th Australasian Remote Sensing and Photogrammetry Conference*, UNSW, Sydney, July, 1998.
29. Hill, M. J., Donald, G. E., and Moore, A. D. (1997). Using GIS and the GRAZPLAN simulation models to assess the effect of climate variability on pasture production. *Proceedings of the International Congress on Modelling and Simulation, 1997, Hobart, Tasmania*.
28. Aspinall, R. J. and Hill, Michael J. (1997). Land cover change: A method for assessing the reliability of land cover changes measured from remotely sensed data. In *IGARSS'97 1997 IEEE International Geoscience and Remote Sensing Symposium Proceedings* T. L. Stein (Ed), IEEE Publications, Piscataway, New Jersey, Vol 1, p 275-277
27. Hill, Michael J., Vickery, Peter J., Furnival, E. Peter and Donald, Graham E. (1997). Mapping Pastures in Eastern Australia with NOAA AVHRR and Landsat TM data. In *IGARSS'97 1997 IEEE International Geoscience and Remote Sensing Symposium Proceedings*, T. L. Stein (Ed), IEEE Publications, Piscataway, New Jersey, Vol 1, p 269-271.
26. Hill, M. J., Vickery, P. J., Donald, G. E., Furnival, E. P. and Mulcahy, C. (1997). Remote sensing of grassland with polarimetric SAR. In, "Significant Results of the AIRSAR Australia 1993 Mission", *Proceedings of the International Workshop on Radar Image Processing and Applications*, COSSA Publication 040, CSIRO, Australia, pp 29-32.
25. Hill, M. J., Vickery, P. J., Donald, G. E., Furnival, E. P. and Mulcahy, C. (1996). Managing the pastoral landscape: adding a spatial dimension? *Proceedings of the 7th Australian Agronomy Conference*, Toowoomba, Qld. pp 309-312.

24. Hill, M. J., Vickery, P. J., Furnival, E. P. and Donald, G. E. (1995). The use of synthetic aperture radar data to identify temperate grassland associations in eastern Australia. *Proceedings of the Fifth International Rangeland Congress* pp 236-237.
23. Hill, M. J., Willms, W. D., Major, D. J. and King, J. R. (1995). Modelling the biogeography of rough fescue (*Festuca altaica*, *F. campestris* and *F. hallii*) in Alberta, Canada. *Proceedings of the Fifth International Rangeland Congress* pp 234-235.
22. Pearson, Craig J., Hill, Michael J. and Archer, Ken A. (1994). Research management: Combining diverse methods to estimate benefits and identify priorities for agricultural research. In: *Systems-oriented Research in Agricultural and Rural Development, Proceedings of 13th International Symposium, Montpellier*, p 264-9.
21. Hill, M. J., Vickery, P. J., Donald, G. E. and Furnival, E. P. (1994). Radar for Grassland Monitoring. *7th Australasian Remote Sensing Conference, Proceedings* Vol 1, pp 244-251.
20. Hill, M. J. (1993). Defining the white clover zone in eastern Australia using a model and a GIS. In, *International Congress on Modelling and Simulation, Proceedings* (edited by Michael McAleer and Anthony Jakeman; University of Western Australia) Vol. 3 pp 1077-1082.
19. Vickery, P. J., Hill, M. J. and Furnival, E. P. (1993). Simulating the impact of global warming on regional pasture production in a cool temperate environment. *Proceedings of the XVII International Grasslands Congress 1993.* pp 1133-4.
18. Willms, W. D., Major, D. J., Hill, M. J., Briscoe, B. and Brown, R. J. (1993). Remote sensing and geographic information systems for range assessment in southern Alberta. *Proceedings of the XVII International Grasslands Congress 1993.* pp 1608-9.
17. Major, D. J., Hill, M. J., Willms, W. D., Briscoe, B. and Brown, R. J. (1992) Radar backscatter from a short-grass prairie. *Proceedings of 1992 International Geoscience and Remote Sensing Symposium* vol 5: 1683-5.
16. Hill, M. J., Hedges, D. A., Vickery, P. J. and Hutchinson, M. F. (1990) Use of climatic GIS data to map potential herbage accumulation in improved pastures of

the Hunter and New England regions of NSW. *Proceedings of 5th Australasian Remote Sensing Conference*, Vol. 1. p 548-51.

15. Hill, M. J., Hedges, D. A., Davies, H. I. and Vickery, P. J.(1990) Some preliminary rainfall analysis for improved targeting of perennial legumes to appropriate environments. In R C Muchow and J A Bellamy, Climatic Risk in Crop Production - Poster papers from the International Symposium. p 106-7. (CSIRO Div. Tropical Crops and Past., Brisbane).
14. Hill, M. J., Hutchinson, M. F. and Kirby, A. C. (1989) Mapping herbage accumulation for the Hunter Region of NSW using climatic analysis, growth indices and field experiments. *Proceedings of the XVI International Grassland Congress*, pp. 1369-70.
13. Boschma, S. P., Hill , M. J., Scott, J. M. and Lutton, J. J. (1997). Carbohydrate reserves of perennial grasses: effect of drought and defoliation intensity. *Proceedings of the XVIII International Grassland Congress..*
12. Boschma, Suzanne P., Hill, Michael J., Scott, James M. and Rapp, Graeme, G. (1996). Effect of different intensities of drought and defoliation upon the mortality of perennial grasses. *Proceedings of the 7th Australian Agronomy Conference*, Toowoomba, Qld, p. 624.
11. King, J. R., Hill, M. J. and Willms, W. D. (1995). Rough fescue species of Alberta: Growth characteristics and adaptation. *Proceedings of the Fifth International Rangelands Congress* pp 289-290.
10. Hill, M. J. and Mulcahy, C. A. (1994) Caucasian clover (*Trifolium ambiguum* M. Bieb.) - A position paper for Australia and New Zealand in 1993. In "Alternative Pasture Legumes 1993". Edited by D. L. Michalk, A. D. Craig and W. J. Collins. *Department of Primary Industries South Australia, Technical report 219*. pp 88-93.
9. Duarsa, M. A. P., Hill, M. J. and Lovett, J. V. (1993). Growth of perennial legumes over three cycles of defoliation at different temperatures. *Proceedings of the XVII International Grasslands Congress 1993*. pp 136-138.
8. Hill, M. J., Mulcahy, C. A. and Rapp, G. G. (1993). A search for persistent perennial legumes for temperate Australia. *Proceedings of the XVII International Grasslands Congress 1993*. pp 423-4.

7. Duarsa, M. A. P., Hill, M. J. and Lovett, J. V. (1992) The distribution of tannins in *Lotus* spp.: variations within plant and stage of maturity. *Proceedings of the Sixth Australian Agronomy Conference*, p 446-9.
6. Hill, M. J., Archer, K. A. and Hutchinson, K. J. (1989) Towards developing a model of persistence and production for white clover. *Proceedings of XVI International Grassland Congress*, pp. 1043-44.
5. Watson, R. W., Strachan, N. and Hill, M. J. (1987). Evaluation of post-emergence herbicides on seedling phalaris pasture. *Proceedings of the Eighth Australian Weeds Conference*, Weed Society of NSW, Sydney, pp. 66-69.
4. Hill M. J. and Watson R. W. (1987). Establishing phalaris in the Upper Hunter by aerial seeding. *Proceedings of the 4th Australian Agronomy Conference, Australian Society of Agronomy*, Melbourne, p.173.
3. Hill M. J. and Kirby A. C. (1985). Morphological variation in prairie grass (*Bromus catharticus* Vahl). *Proceedings of XV International Grassland Congress*, pp. 179-181.
2. Hill M. J. (1985). Establishing temperate grasses in existing subtropical grass swards: the influence of temperature and species characteristics. *Proceedings of XV International Grassland Congress*, pp. 577-579.
1. Hill, M. J. and Pearson C. J. (1982). Early growth pattern and sod-sowing of temperate pasture grasses. "Agronomy Australia 1982", Proceedings of the Second Australian Agronomy Conference, Australian Society of Agronomy, Melbourne, p.172.