

PROFESSOR R. H. ELLIS

University of Reading

<https://www.reading.ac.uk/crop-science/our-staff/Richard-Ellis>

PUBLICATIONS

1. Ellis, R.H. and Roberts, E.H., 1977. A revised seed viability nomograph for onion. *Seed Research*, 5, 93-103.
2. Roberts, E.H. and Ellis, R.H., 1977. Prediction of seed longevity at sub-zero temperatures and genetic resources conservation. *Nature*, London, 268, 431-433.
3. Ellis, R.H. and Roberts, E.H., 1979. Germination of stored cassava seed at constant and alternating temperatures. *Annals of Botany*, 44, 677-684.
4. Ellis, R.H. and Roberts, E.H., 1980a. Improved equations for the prediction of seed longevity. *Annals of Botany*, 45, 13-30.
5. Ellis, R.H. and Roberts, E.H., 1980b. The influence of temperature and moisture on seed viability period in barley (*Hordeum distichum* L.). *Annals of Botany*, 45, 31-37.
6. Ellis, R.H. and Roberts, E.H., 1980c. Towards a rational basis for testing seed quality. In *Seed Production* (ed P.D. Hebblethwaite), pp. 605-635. Butterworths, London.
7. Ellis, R.H., Roberts, E.H. and Whitehead, J., 1980. A new, more economic and accurate approach to monitoring the viability of accessions during storage in seed banks. *Plant Genetic Resources Newsletter*, 41, 3-18.
8. Roberts, E.H. and Ellis, R.H., 1980. Seed physiology and seed quality in soyabean. In *Advances in Legume Science* (eds R.J. Summerfield and A.H. Bunting), pp. 297-312. HMSO, London.
9. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1981. The influence of desiccation on cassava seed germination and longevity. *Annals of Botany*, 47, 173-175.
10. Ellis, R.H. and Roberts, E.H., 1981a. An investigation into the possible effects of ripeness and repeated threshing on barley seed longevity under six different storage environments. *Annals of Botany*, 48, 93-96.
11. Ellis, R.H. and Roberts, E.H., 1981b. The quantification of ageing and survival in orthodox seeds. *Seed Science & Technology*, 9, 373-409.
12. Roberts, E.H. and Ellis, R.H., 1981. Seed storage, loss of viability, genetic damage and crop yield. In *Handbook of Agricultural Productivity: Plant Productivity* (ed M. Rechcigl), pp. 143-149. CRC Press, Boca Raton, USA.
13. Cromarty, A.S., Ellis, R.H. and Roberts, E.H., 1982. *The design of seed storage facilities for genetic conservation*, 96 pp. IBPGR, Rome.
14. Ellis, R.H., 1982. Seed storage and germination of apple and pear. *Plant Genetic Resources Newsletter*, 50, 53-61.
15. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1982. An investigation of the influence of constant and alternating temperatures on the germination of cassava seed using a two-way temperature gradient plate. *Annals of Botany*, 49, 241-246.
16. Ellis, R.H., Osei-Bonsu, K. and Roberts, E.H., 1982a. Desiccation and germination of seed of cowpea (*Vigna unguiculata* (L.) Walp.). *Seed Science & Technology*, 10, 509-515.

17. Ellis, R.H., Osei-Bonsu, K. and Roberts, E.H., 1982b. The influence of genotype, temperature and moisture on seed longevity in chickpea, cowpea and soyabean. *Annals of Botany*, 50, 69-82.
18. Ellis, R.H. and Roberts, E.H., 1982a. Desiccation, rehydration, germination, imbibition injury and longevity of pea seeds (*Pisum sativum* L.). *Seed Science & Technology*, 10, 501-508.
19. Ellis, R.H. and Roberts, E.H., 1982b. *Use of deep-freeze chests for medium- and long-term storage of small seed collections*. 9 pp. IBPGR, Rome.
20. Roberts, E.H. and Ellis, R.H., 1982. Physiological, ultra-structural and metabolic aspects of seed viability. In *Physiology and Biochemistry of Seed Dormancy and Germination* (ed A.A. Khan), pp. 465-485. North-Holland, New York.
21. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1983a. Safe procedures for the removal of rice seed dormancy. *Seed Science & Technology*, 11, 77-112.
22. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1983b. A note on the development of a practical procedure for promoting the germination of dormant seed of grape (*Vitis* spp.). *Vitis*, 22, 211-219.
23. Ellis, R.H. and Wetzel, M., 1983. Recent developments on applying sequential analysis to gene bank seed viability monitoring tests. *Plant Genetic Resources Newsletter*, 55, 2-15.
24. Ellis, R.H., 1984a. The meaning of viability. In *Seed Management Techniques for Genebanks* (eds J.B. Dickie, S. Linington and J.T. Williams), pp. 146-178. IBPGR, Rome.
25. Ellis, R.H., 1984b. A revised table of seed storage characteristics. *Plant Genetic Resources Newsletter*, 58, 16-33.
26. Ellis, R.H. and Roberts, E.H., 1984. Procedures for monitoring accessions during storage which minimise costs, and the risk of genetic change, losing accessions and unnecessary regeneration. In *Crop Genetic Resources: Conservation and Evaluation* (eds J.H.W. Holden and J.T. Williams), pp. 63-76. George Allen and Unwin, London.
27. Roberts, E.H. and Ellis, R.H., 1984. The implications of the deterioration of orthodox seeds during storage for genetic resources conservation. In *Crop Genetic Resources: Conservation and Evaluation* (eds J.H.W. Holden and J.T. Williams), pp. 18-37. George Allen and Unwin, London.
28. Roberts, E.H., King, M.W. and Ellis, R.H., 1984. Recalcitrant seeds: Their recognition and storage. In *Crop Genetic Resources: Conservation and Evaluation* (eds J.H.W. Holden and J.T. Williams), pp. 38-52. George Allen and Unwin, London.
29. Ellis, R.H., 1985a (ed.). *Long term seed storage of major temperate fruits*, 38 pp. IBPGR, Rome.
30. Ellis, R.H., 1985b. Information required within genetic resources centres to maintain and distribute seed accessions. In *Documentation of Genetic Resources. Information Handling Systems for Genebank Management* (eds J. Konopka and J. Hanson), pp. 11-20. IBPGR, Rome.
31. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1985a. Preliminary seed germination and seed storage investigations with the winged bean (*Psophocarpus tetragonolobus* (L.) DC.). *The Winged Bean Flyer*, 5 (2), 22-36.
32. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1985b. *Handbook of seed technology for genebanks*. Volume I. Principles and Methodology, 210 pp. IBPGR, Rome.

33. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1985c. *Handbook of seed technology for genebanks. Volume II. Compendium of specific germination information and test recommendations*, pp. 211-667. IBPGR, Rome.
<https://cgspace.cgiar.org/items/a4b3390b-b04d-41c5-a1a9-8fc08a966549>
34. Summerfield, R.J., Roberts, E.H., Erskine, W. and Ellis, R.H., 1985. Effects of temperature and photoperiod on flowering in lentils (*Lens culinaris* Medic.). *Annals of Botany*, 56, 659-671.
35. Arnold, M.H., Astley, D., Bell, E.A., Bleasdale, J.K.A., Bunting, A.H., Burley, J., Callow, J.A., Cooper, J.P., Day, P.R., Ellis, R.H., Ford-Lloyd, B.V., Giles, R.J., Hawkes, J.G., Hayes, J.D., Henshaw, G.G., Heslop-Harrison, J., Heywood, V.H., Innes, N.L., Jackson, M.T., Jenkins, G., Lawrence, M.J., Lester, R.N., Matthews, P., Mumford, P.M., Roberts, E.H., Simmonds, N.W., Smartt, J., Smith, R.D., Tyler, B., Watkins, R., Whitmore, T.C. and Withers, L.A., 1986. Plant gene conservation. *Nature*, 319, 615.
36. Covell, S., Ellis, R.H., Roberts, E.H. and Summerfield, R.J., 1986. The influence of temperature on seed germination rate in grain legumes. I. A comparison of chickpea, lentil, soyabean and cowpea at constant temperatures. *Journal of Experimental Botany*, 37, 705-715.
37. Ellis, R.H., Covell, S., Roberts, E.H. and Summerfield, R.J., 1986. The influence of temperature on seed germination rate in grain legumes. II. Intraspecific variation in chickpea (*Cicer arietinum* L.) at constant temperatures. *Journal of Experimental Botany*, 37, 1503-1515.
38. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1986a. Logarithmic relationship between moisture content and longevity in sesame seeds. *Annals of Botany*, 57, 499-503.
39. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1986b. Quantal response of seed germination in *Brachiaria humidicola*, *Echinochloa turnerana*, *Eragrostis tef* and *Panicum maximum* to photon dose for the low energy reaction and the high irradiance reaction. *Journal of Experimental Botany*, 37, 742-753.
40. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1986c. The response of seeds of *Bromus sterilis* L. and *Bromus mollis* L. to white light of varying photon flux density and photoperiod. *New Phytologist*, 104, 485-496.
41. Khah, E.M., Ellis, R.H. and Roberts, E.H., 1986. Effects of laboratory germination, soil temperature and moisture content on the emergence of spring wheat. *Journal of Agricultural Science, Cambridge*, 107, 431-438.
42. Tao, K.-L., Ellis, R.H., Stanwood, P.C. and Chang, T.T., 1986. *Genebank Management and Seed Storage*, 238 pp. IBPGR-CAAS, Beijing.
43. Ellis, R.H., 1987a. Recent developments from research in crop production at Reading. *New Laden Wain*, 3, 37-42.
44. Ellis, R.H., 1987b. Monitoring the viability of seed accessions. *Plant Genetic Resources Newsletter*, 71, 16-21.
45. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1987a. The development of desiccation-tolerance and maximum seed quality during seed maturation in six grain legumes. *Annals of Botany*, 59, 23-29.

46. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1987b. Comparison of cumulative germination and rate of germination of dormant and aged barley seed lots at different constant temperatures. *Seed Science and Technology*, 15, 717-728.
47. Ellis, R.H., Simon, G. and Covell, S., 1987. The influence of temperature on seed germination rate in grain legumes. III. A comparison of five faba bean genotypes using a new screening method. *Journal of Experimental Botany*, 38, 1033-1043.
48. Ellis, R.H. and Whitehead, J., 1987. Open, truncated and triangular sequential seed testing procedures. *Seed Science and Technology*, 15, 1-17.
49. Rao, N.K., Roberts, E.H. and Ellis, R.H., 1987a. Loss of seed viability in lettuce seeds and the accumulation of chromosome damage under different storage conditions. *Annals of Botany*, 60, 85-96.
50. Rao, N.K., Roberts, E.H. and Ellis, R.H., 1987b. The influence of pre and post-storage hydration treatments on chromosomal aberrations, seedling abnormalities, and viability of lettuce seeds. *Annals of Botany*, 60, 97-108.
51. Roberts, E.H., Murdoch, A.J. and Ellis, R.H., 1987. The interaction of environmental factors on seed dormancy. In *Proceedings of the British Crop Protection Conference - Weeds 1987*, pp. 687-694. British Crop Protection Council Publications, Thornton Heath, Surrey.
52. Ellis, R.H., 1988. The viability equation, seed viability nomographs and practical advice on seed storage. *Seed Science and Technology*, 16, 29-50.
53. Ellis, R.H., Agrawal, P.K. and Roos, E.E., 1988. Harvesting and storage factors that affect seed quality in pea, lentil, faba bean and chickpea. In *World Crops: Cool Season Food Legumes* (ed. R.J. Summerfield), pp. 303-329. Martinus Nijhoff/Dr W. Junk Publishers, Dordrecht, The Netherlands.
54. Ellis, R.H. and Butcher, P.D., 1988. The effects of priming and 'natural' differences in quality amongst onion seed lots on the response of the rate of germination to temperature, and the identification of the characteristics under genotypic control. *Journal of Experimental Botany*, 39, 935-950.
55. Ellis, R.H. and Dolman, G.F.S., 1988. The germination and emergence of seeds of winter oilseed rape stored and sown in a mixture with pelleted methiocarb. *Annals of Applied Biology*, 112, 555-561.
56. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1988. A low-moisture-content limit to logarithmic relations between seed moisture content and longevity. *Annals of Botany*, 61, 405-408.
57. Ellis, R.H., Roberts, E.H. and Summerfield, R.J., 1988a. Photo-thermal time for flowering in faba bean (*Vicia faba* L.) and the analysis of potential vernalization responses. *Annals of Botany*, 61, 73-82.
58. Ellis, R.H., Roberts, E.H. and Summerfield, R.J., 1988b. Variation in the optimum temperature for rates of seedling emergence and progress towards flowering amongst six genotypes of faba bean (*Vicia faba* L.). *Annals of Botany*, 62, 119-126.
59. Ellis, R.H., Roberts, E.H., Summerfield, R.J. and Cooper, J.P., 1988. Environmental control of flowering in barley (*Hordeum vulgare* L.). II. Rate of development as a function of temperature and photoperiod and its modification by low-temperature vernalization. *Annals of Botany*, 62, 145-158.

60. Ellis, R.H., Summerfield, R.J. and Roberts, E.H., 1988. Effects of temperature, photoperiod and seed vernalization on flowering in faba bean (*Vicia faba* L.). *Annals of Botany*, 61, 17-27.
61. Rao, N.K., Roberts, E.H. and Ellis, R.H., 1988. A comparison of the quantitative effects of seed moisture content and temperature on the accumulation of chromosome damage and loss of seed viability in lettuce. *Annals of Botany*, 62, 245-248.
62. Roberts, E.H., Hadley, P., Ellis, R.H. and Summerfield, R.J., 1988. Quantitative relations between photoperiod, temperature and rates of development, and their implications for screening germplasm. In *4th EUCARPIA Allium Symposium*, pp. 139-148. Institute of Horticultural Research, Wellesbourne.
63. Roberts, E.H., Summerfield, R.J., Cooper, J.P. and Ellis, R.H., 1988. Environmental control of flowering in barley (*Hordeum vulgare* L.). I. Photoperiod limits to long-day responses, photoperiod-insensitive phases, and effects of low-temperature and short-day vernalization. *Annals of Botany*, 62, 127-144.
64. Roberts, E.H., Summerfield, R.J., Ellis, R.H. and Stewart, K.A., 1988. Photo-thermal time for flowering in lentils (*Lens culinaris* Medic.) and the analysis of potential vernalization responses. *Annals of Botany*, 61, 29-39.
65. Roberts, E.H., Summerfield, R.J., Hadley, P. and Ellis, R.H., 1988. Research on the control of flowering at the Plant Environment Laboratory, Reading University, UK. *Flowering Newsletter*, 5, 2-10.
66. Ellis, R.H., 1989. The effects of differences in seed quality resulting from priming or deterioration on the relative growth rate of onion seedlings. *Acta Horticulturae*, 253, 203-211.
67. Ellis, R.H., Hadley, P., Morison, J.I.L., Roberts, E.H. and Summerfield, R.J., 1989. The 'greenhouse effect' and effects on crop yields. In *The 'Greenhouse Effect' and UK Agriculture* (ed. R.M. Bennett), pp. 97-100. Centre for Agricultural Strategy, Reading.
68. Ellis, R.H., Hong, T.D., and Roberts, E.H., 1989a. Quantal response of seed germination in seven genera of Cruciferae to white light of varying photon flux density and photoperiod. *Annals of Botany*, 63, 145-158.
69. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1989b. Response of seed germination in three genera of Compositae to white light of varying photon flux density and photoperiod. *Journal of Experimental Botany*, 40, 13-22.
70. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1989c. A comparison of the low-moisture-content limit to the logarithmic relation between seed moisture and longevity in twelve species. *Annals of Botany*, 63, 601-611.
71. Ellis, R.H., Summerfield, R.J., Roberts, E.H. and Cooper, J.P., 1989. Environmental control of flowering in barley (*Hordeum vulgare*). III. Analysis of potential vernalization responses, and methods of screening germplasm for sensitivity to photoperiod and temperature. *Annals of Botany*, 63, 687-704.
72. Khah, E.M., Roberts, E.H. and Ellis, R.H., 1989. The effects of seed ageing on the growth and yield of spring wheat at different plant population densities. *Field Crops Research*, 20, 175-190.
73. Roberts, E.H. and Ellis, R.H., 1989. Water and seed survival. *Annals of Botany*, 63, 39-52.
74. Summerfield, R.J., Ellis, R.H. and Roberts, E.H., 1989. Vernalization in chickpea (*Cicer arietinum*): Fact or artefact? *Annals of Botany*, 64, 599-603.

75. Dickie, J.B., Ellis, R.H., Kraak, H.L., Ryder, K. and Tompsett, P.B., 1990. Temperature and seed storage longevity. *Annals of Botany*, 65, 197-204.
76. Ellis, R.H., 1990a. Climatic change and plant genetic resources. *Biologist*, 37, 4-6.
77. Ellis, R.H., 1990b. Breeding crops for our changing climate. *Biotechnology Insight*, 81, 5-6.
78. Ellis, R.H., de Barros, M.A., Hong, T.D. and Roberts, E.H., 1990. Germination of seeds of five cultivars of *Echinochloa colonum* (L.) Link in response to potassium nitrate and white light of varying photon flux density and photoperiod. *Seed Science and Technology*, 18, 119-130.
79. Ellis, R.H., Hadley, P., Roberts, E.H. and Summerfield, R.J., 1990. Quantitative relations between temperature and crop development and growth. In *Climatic Change and Plant Genetic Resources* (eds M. Jackson, B.V. Ford-Lloyd and M.L. Parry), pp. 85-115. Belhaven Press, London.
80. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1990a. Effect of moisture content and method of rehydration on the susceptibility of pea seeds to imbibition damage. *Seed Science and Technology*, 18, 131-137.
81. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1990b. Moisture content and the longevity of seeds of *Phaseolus vulgaris*. *Annals of Botany*, 66, 341-348.
82. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1990c. An intermediate category of seed storage behaviour? I. Coffee. *Journal of Experimental Botany*, 41, 1167-1174.
83. Ellis, R.H., Hong, T.D., Roberts, E.H. and Tao, K.-L., 1990. Low moisture content limits to relations between seed longevity and moisture. *Annals of Botany*, 65, 493-504.
84. Ellis, R.H., Summerfield, R.J. and Roberts, E.H., 1990. Flowering in faba bean: Genotypic differences in photoperiod sensitivity, similarities in temperature sensitivity, and implications for screening germplasm. *Annals of Botany*, 65, 129-138.
85. Erskine, W., Ellis, R.H., Summerfield, R.J., Roberts, E.H. and Hussain, A., 1990. Characterization of responses to temperature and photoperiod for time to flowering in a world lentil collection. *Theoretical and Applied Genetics*, 80, 193-199.
86. Hong, T.D. and Ellis, R.H., 1990. A comparison of maturation drying, germination, and desiccation tolerance between developing seeds of *Acer pseudoplatanus* L. and *Acer platanoides* L. *New Phytologist*, 116, 589-596.
87. Summerfield, R.J., Virmani, S.M., Roberts, E.H. and Ellis, R.H., 1990. Adaptation of chickpea to agroclimatic constraints. In *Chickpea in the Nineties*, pp. 61-72. ICRISAT, India.
88. Ellis, R.H., 1991a. Longevity of seeds. *HortScience*, 26, 1119-1125.
89. Ellis, R.H., 1991b. Genebanks: how low can you go? *New Laden Wain*, 7, 44-51.
90. Ellis, R.H., 1991c. Seed storage in national centers. In *Rice Germplasm, Collecting, Preservation, Use*, pp. 81-85. IRRI, The Philippines.
91. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1991a. Effect of storage temperature and moisture on the germination of papaya seeds. *Seed Science Research*, 1, 69-72.
92. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1991b. An intermediate category of seed storage behaviour? II. Effects of provenance, immaturity, and imbibition on desiccation-tolerance in coffee. *Journal of Experimental Botany*, 42, 653-657.

93. Ellis, R.H., Hong, T.D. and Roberts, E.H. 1991c. Seed moisture content, storage, viability and vigour. *Seed Science Research*, 1, 275-277.
94. Ellis, R.H., Hong, T.D., Roberts, E.H. and Soetisna, U., 1991d. Seed storage behaviour in *Elaeis guineensis*. *Seed Science Research*, 1, 99-104.
95. Kameswara Rao, N., Appa Rao, S., Mengesha, M.H. and Ellis, R.H., 1991. Longevity of pearl millet (*Pennisetum glaucum*) seeds harvested at different stages of maturity. *Annals of Applied Biology*, 119, 97-103.
96. Osei-Bonsu, K., Ellis, R.H. and Roberts, E.H., 1991. Effect of time harvesting on the storability of chickpea (*Cicer arietinum* L.) seeds. *Ghana Journal of Agricultural Science*, 24-27, 31-35.
97. Pieta Filho, C. and Ellis, R.H., 1991a. The development of seed quality in spring barley in four environments. I. Germination and Longevity. *Seed Science Research*, 1, 163-177.
98. Pieta Filho, C. and Ellis, R.H., 1991b. The development of seed quality in spring barley in four environments. II. Field emergence and seedling size. *Seed Science Research*, 1, 179-185.
99. Summerfield, R.J., Collinson, S.T., Ellis, R.H. and Roberts, E.H., 1991. Measuring and predicting flowering in rice. *International Agricultural Development*, 11(5), 21.
100. Summerfield, R.J., Ellis, R.H., Roberts, E.H. and Qi, A., 1991. Measurement, prediction and genetic characterization of flowering in *Vicia faba* and *Pisum sativum*. *Aspects of Applied biology*, 27, 253-261.
101. Summerfield, R.J., Roberts, E.H., Ellis, R.H. and Lawn R.J., 1991. Towards the reliable prediction of time to flowering in six annual crops. I. The development of simple models for fluctuating field environments. *Experimental Agriculture*, 27, 11-31.
102. Wheeler, T.R. and Ellis, R.H., 1991. Seed quality, cotyledon elongation at suboptimal temperatures, and the yield of onion. *Seed Science Research*, 1, 57-67.
103. Zewdie, M. and Ellis, R.H., 1991a. The upper-moisture-content limit to negative relations between seed longevity and moisture in niger and tef. *Seed Science and Technology*, 19, 295-302.
104. Zewdie, M. and Ellis, R.H., 1991b. Comparisons of seed longevity between tef and niger in similar storage conditions. *Seed Science and Technology*, 19, 303-307.
105. Zewdie, M. and Ellis, R.H., 1991c. Survival of tef and niger seeds following exposure to sub-zero temperatures at various moisture contents. *Seed Science and Technology*, 19, 309-317.
106. Zewdie, M. and Ellis, R.H., 1991d. Response of tef and niger seed longevity to storage temperature and moisture. *Seed Science and Technology*, 19, 319-329.
107. Collinson, S.T., Ellis, R.H., Summerfield, R.J. and Roberts, E.H., 1992. Duration of the photoperiod-sensitive and photoperiod-insensitive phases of development to flowering in four cultivars of rice. *Annals of Botany*, 70, 339-346.
108. Craufurd, P.Q., Ellis, R.H., Qi, A., Summerfield, R.J. and Roberts, E.H., 1992. Predicting flowering date in cowpea. *Agronomy Abstracts*, 84, 14.
109. Demir, I. and Ellis, R.H., 1992a. Changes in seed quality during seed development and maturation in tomato. *Seed Science Research*, 2, 81-87.
110. Demir, I. and Ellis, R.H., 1992b. Development of pepper (*Capsicum annuum* L.) seed quality. *Annals of Applied Biology*, 121, 385-399.

111. Edmeades, G.O., Ellis, R.H. and Lafitte, H.R., 1992. Photothermal responses of tropically-adapted maize. *Agronomy Abstracts*, 84, 124.
112. Ellis, R.H., 1992. Seed and seedling vigour in relation to crop growth and yield. *Plant Growth Regulation*, 11, 249-255.
113. Ellis, R.H., Collinson, S.T., Hudson, D. and Patefield, W.M., 1992. The analysis of reciprocal transfer experiments to estimate the durations of the photoperiod-insensitive phases of plant development: an example in soya bean. *Annals of Botany*, 70, 87-92.
114. Ellis, R.H., Hong, T.D. and Roberts, E.H., 1992. The low-moisture-content limit to the negative logarithmic relation between seed longevity and moisture content in three subspecies of rice. *Annals of Botany*, 69, 53-58.
115. Ellis, R.H. and Pieta-Filho, C., 1992. The development of seed quality in spring and winter cultivars of barley and wheat. *Seed Science Research*, 2, 9-15.
116. Ellis, R.H., Summerfield, R.J., Edmeades, G.O. and Roberts, E.H., 1992a. Photoperiod, leaf number, and interval from tassel initiation to emergence in diverse cultivars of maize. *Crop Science*, 32, 398-403.
117. Ellis, R.H., Summerfield, R.J., Edmeades, G.O. and Roberts, E.H., 1992b. Photoperiod, temperature and the interval from sowing to tassel initiation in diverse cultivars of maize. *Crop Science*, 32, 1225-1232.
118. Hong, T.D. and Ellis, R.H., 1992a. Optimum air-dry seed storage environments for arabica coffee. *Seed Science and Technology*, 20, 547-560.
119. Hong, T.D. and Ellis, R.H., 1992b. The survival of germinating orthodox seeds after desiccation and hermetic storage. *Journal of Experimental Botany*, 43, 239-247.
120. Hong, T.D. and Ellis, R.H., 1992c. Development of desiccation tolerance in Norway maple (*Acer platanoides* L.) seeds during maturation drying. *Seed Science Research*, 2, 169-172.
121. Murdoch, A.J. and Ellis, R.H., 1992a. Longevity, viability and dormancy. In *Seeds: The Ecology of Regeneration and Plant Communities* (ed. M. Fenner), pp. 193-229. CABI, Wallingford.
122. Pieta Filho, C. and Ellis, R.H., 1992. Estimating the value of the seed lot constant (K_i) of the seed viability equation in barley and wheat. *Seed Science and Technology*, 20, 93-99.
123. Pieta Filho, C. and Ellis, R.H. 1992. A maxima qualidade das sementes de cereais. *Agropecuaria Catarinense*, 5, 27-29.
124. Summerfield, R.J., Collinson, S.T., Ellis, R.H., Roberts, E.H. and Penning de Vries, F.W.T., 1992. Photothermal responses of flowering in rice (*Oryza sativa* L.). *Annals of Botany*, 69, 101-112.
125. Summerfield, R.J., Ellis, R.H., Roberts, E.H. and Qi, A., 1992a. Photothermal flowering responses in pea, lentil, faba bean and chickpea. In *Proceedings of the First European Conference on Grain Legumes* (eds Ph Plancquaert *et al.*), pp. 195-196, Association Europeenne de Recherche pour les Proteagineux, Paris.
126. Summerfield, R.J., Ellis, R.H., Roberts, E.H. and Qi, A., 1992b. Predicting time to flowering in soyabean. *Eurosoya Newsletter*, 9, 30-35.
127. Wheeler, T.R. and Ellis, R.H., 1992a. Seed quality and seedling emergence in onion (*Allium cepa* L.). *Journal of Horticultural Science*, 67, 319-332.

128. Wheeler, T.R., and Ellis, R.H., 1992b. Taking the guesswork out of seed sowing. *Grower* August 27, pp 16-17.
129. Collinson, S.T., Summerfield, R.J., Ellis, R.H. and Roberts, E.H., 1993. Durations of the photoperiod-sensitive and photoperiod-insensitive phases of development to flowering in four cultivars of soyabean [*Glycine max* (L.) Merrill]. *Annals of Botany*, 71, 389-394.
130. Demir, I. and Ellis R.H., 1993. Changes in potential seed longevity and seedling growth during seed development and maturation in marrow. *Seed Science Research*, 3, 247-257.
131. Ellis, R.H., Demir, I. and Pioto Filho, C., 1993. Changes in seed quality during seed development in contrasting crops. In *Fourth International Workshop on Seeds, Basic and Applied Aspects of Seed Biology, Volume 3* (eds. P. Côme and F. Corbineau), pp. 897-904, ASFIS, Paris.
132. Ellis, R.H., Hong, T.D. and Jackson, M.T., 1993. Seed production environment, time of harvest, and the potential longevity of seeds of three cultivars of rice (*Oryza sativa* L.) *Annals of Botany*, 72, 583-590.
133. Ellis, R.H., Hong, T.D., Martín, M.C., Pérez-Garcia, F. and Gómez-Campo, C., 1993. The long-term storage of seeds of seventeen crucifers at very low moisture contents. *Plant Varieties and Seeds*, 6, 75-81.
134. Ellis, R.H., Qi, A., Summerfield, R.J. and Roberts, E.H., 1993. Rates of leaf appearance and panicle development in rice (*Oryza sativa* L.): a comparison at three temperatures. *Agricultural and Forest Meteorology*, 66, 129-138.
135. Ellis, R.H., Summerfield, R.J. and Roberts, E.H., 1993. Genetic characterization of flowering responses to photothermal environment. *Aspects of Applied Biology*, 34, 79-88.
136. Jones, S., Gosling, P. and Ellis, R.H., 1993. The effects of redrying moist, prechilled, and chitted sitka spruce (*Picea sitchensis* Bang. Carr.) seeds. In *Fourth International Workshop on Seeds, Basic and Applied Aspects of Seed Biology, Volume 3* (eds. D. Côme and F. Corbineau), pp. 1015-1020. ASFIS, Paris.
137. Roberts, E.H., Summerfield, R.J., Ellis, R.H. and Qi, A., 1993. Adaptation of flowering in crops to climate. *Outlook on Agriculture*, 22, 105-110.
138. Summerfield, R.J. and Ellis, R.H., 1993. Crop productivity in changing climates. In *The Renewal of Hungarian Agriculture* (ed. S. Gabor), pp.46-56. A Debreceni Agrartudományegyetem 125 Eve, Debrecen, Hungary.
139. Summerfield, R.J., Lawn, R.J., Qi, A., Ellis, R.H., Roberts, E.H., Chay, P.M., Brouwer, J.B., Rose, J.L., Shanmugasundaram, S., Yeates, S.J. and Sandover, S., 1993. Towards the reliable prediction of time to flowering in six annual crops. II. Soyabean (*Glycine max*). *Experimental Agriculture*, 29, 253-289.
140. Wheeler, T.R., Hadley, P., Ellis, R.H. and Morison, J.I.L., 1993. Changes in growth and radiation use by lettuce crops in relation to temperature and ontogeny. *Agricultural and Forest Meteorology*, 66, 173-186.
141. Wheeler, T.R., Hadley, P., Morison, J.I.L. and Ellis, R.H., 1993. Effects of temperature on the growth of lettuce (*Lactuca sativa* L.) and the implications for assessing the impacts of potential climate change. *European Journal of Agronomy*, 2, 305-311.
142. Wheeler, T.R., Morison, J.I.L., Hadley, P. and Ellis, R.H., 1993. Whole-season experiments on the effects of carbon dioxide and temperature on vegetable crops. In *The Effect of Climate Change on Agricultural and Horticultural Potential in Europe* (eds

- G.J. Kenny, P.A. Harrison and M.L. Parry), pp. 165-176. Environmental Change Unit, University of Oxford, Oxford.
143. Zanakakis, G.N., Ellis, R.H. and Summerfield, R.J., 1993. Response of seed longevity to moisture content in three genotypes of soyabean (*Glycine max*). *Experimental Agriculture*, 29, 449-459.
144. Demir, I. and Ellis, R.H., 1994. The effects of priming on germination and longevity of sequentially harvested pepper seed lots. *Turkish Journal of Agriculture and Forestry*, 18, 213-217.
145. Ellis, R.H. and Barrett, S. 1994. Alternating temperatures and rate of seed germination in lentil. *Annals of Botany*, 74, 519-524.
146. Ellis, R.H. and Hong, T.D., 1994. Desiccation tolerance and potential longevity of developing seeds of rice (*Oryza sativa* L.). *Annals of Botany*, 73, 501-506.
147. Ellis, R.H., Hong, T.D., Astley, D. and Kraak, H. L., 1994. Medium-term storage of dry and ultra-dry seeds of onion at ambient and sub-zero temperatures. *Onion Newsletter for the Tropics*, 6, 56-58.
148. Ellis, R.H., Lawn, R.J., Summerfield, R.J., Qi, A., Roberts, E.H., Chay, P.M., Brouwer, J.B., Rose, J.L. and Yeates, S.J., 1994. Towards the reliable prediction of time to flowering in six annual crops. III. Cowpea (*Vigna unguiculata*). *Experimental Agriculture*, 30, 17-29.
149. Ellis, R.H., Lawn, R.J., Summerfield, R.J., Qi, A., Roberts, E.H., Chay, P.M., Brouwer, J.B., Rose, J.L., Yeates, S.J. and Sandover, S., 1994a. Towards the reliable prediction of time to flowering in six annual crops. IV. Cultivated and wild mung bean. *Experimental Agriculture*, 30, 31-43.
150. Ellis, R.H., Lawn, R.J., Summerfield, R.J., Qi, A., Roberts, E.H., Chay, P.M., Brouwer, J.B., Rose, J.L., Yeates, S.J., and Sandover, S., 1994b. Towards the reliable prediction of time to flowering in six annual crops. V. Chickpea (*Cicer arietinum*). *Experimental Agriculture*, 30, 271-282.
151. Erskine, W., Hussain, A., Tahir, M., Bahksh, A., Ellis, R.H., Summerfield, R. J. and Roberts, E.H., 1994. Field evaluation of a model of photothermal flowering responses in a world lentil collection. *Theoretical and Applied Genetics*, 88, 423-428.
152. Francisco-Ortega, J., Ellis, R.H. González-Feria, E. and Santos-Guerra, A., 1994. Overcoming seed dormancy in ex situ plant germplasm conservation programmes: an example in the endemic *Argyranthemum* (Asteraceae : Anthemideae) species from the Canary Islands. *Biodiversity and Conservation*, 3, 341-352.
153. Summerfield, R.J., Roberts, E.H., and Ellis, R.H., 1994. Crop Physiology & Productivity in the Cool Season Food Legumes: Recent Advances in the Measurement and Prediction of Photothermal Effects on Flowering. In *Proceedings of the Second International Food Legume Research Conference* (eds. F.J. Muehlbauer and W.J. Kaiser), pp. 755-770. Kluwer Publications, Dordrecht.
154. Upadhyay, A.P., Ellis, R.H., Summerfield, R.J., Roberts, E.H. and Qi, A., 1994. Characterization of photothermal flowering responses in maturity isolines of soyabean [*Glycine max* (L.) Merrill] cv. Clark. *Annals of Botany*, 74, 87-96.
155. Upadhyay, A.P., Summerfield, R.J., Ellis, R.H., Roberts, E.H. and Qi, A., 1994. Variations in the durations of the photoperiod-sensitive and photoperiod-insensitive phases of development to flowering among eight maturity isolines of soyabean [*Glycine max* (L.) Merrill]. *Annals of Botany*, 74, 97-101.

156. Watkinson, A.R., Lawn, R.J., Ellis, R.H., Qi, A. and Summerfield, R.J., 1994. *RoDMod: A Computer Program for Characterising Genotypic Variation in Flowering Responses to Photoperiod and Temperature*. 49pp. CSIRO, Brisbane.
157. Wheeler, T.R., Batts, G.R., Morison, J.I.L., Ellis, R.H. and Hadley, P., 1994. Effects of CO₂, temperature and their interaction on crop growth, development and yield. In *Proceedings of the Third European Society of Agronomy Congress*, pp 278-279. European Society of Agronomy, Abano-Padova.
158. Wheeler, T.R. and Ellis, R.H., 1994. Effects of seed quality and temperature on pre-emergence root growth of seedlings on onion (*Allium cepa*). *Seed Science and Technology*, 22, 141-148.
159. Wheeler, T.R. Ellis, R.H., Hadley, P. and Morison, J.I.L., 1994. Effects of CO₂, temperature and their interaction on the growth and yield of carrot (*Daucus carota* L.). *Plant, Cell and Environment*, 17, 1275-1284.
160. Zanakakis, G.N., Ellis, R.H. and Summerfield, R.J., 1994a. Seed quality in relation to seed development and maturation in three genotypes of soyabean (*Glycine max*). *Experimental Agriculture*, 30, 139-156.
161. Zanakakis, G.N., Ellis, R.H. and Summerfield, R.J., 1994b. A comparison of changes in vigour among three genotypes of soyabean (*Glycine max*) during seed development and maturation in three temperature regimes. *Experimental Agriculture*, 30, 157-170.
162. Collinson, S.T., Ellis, R.H., Summerfield, R.J. and Roberts, E.H., 1995. Relative importance of air and floodwater temperatures on the development of rice (*Oryza sativa*). *Experimental Agriculture*, 31, 151-160.
163. Ellis, R.H., Craufurd, P.Q., Summerfield, R.J. and Roberts, E.H., 1995. Linear relations between carbon dioxide concentration and rate of development towards flowering in sorghum, cowpea and soyabean. *Annals of Botany*, 75, 193-198.
164. Ellis, R.H. and Hong, T.D., 1995. The effect of cool temperatures on the germination of lentil. In *Autumn-Sowing of Lentil in the Highlands of West Africa and North Africa* (eds J.D.H. Keatinge and I. Küsmenoglu), pp. 95-106. Central Research Institute for Field Crops, Ankara.
165. Ellis, R.H., Hong, T.D and Roberts, E.H., 1995. Survival and vigour of lettuce (*Lactuca sativa* L.) and sunflower (*Helianthus annuus* L.) seeds stored at low and very-low moisture contents. *Annals of Botany*, 76, 521-534.
166. Ellis, R.H. and Jackson, M.T., 1995. Accession regeneration in genebanks: seed production environment and the potential longevity of seed accessions. *Plant Genetic Resources Newsletter*, 102, 26-28.
167. Ellis, R.H., Schofield, J.L., Tidball, J. and Young, C.P.L., 1995. *Seed v.0.91 MERTal Courseware* (ed. S.B. Heath). University of Aberdeen.
168. Ellis, R.H., Watkinson, A.R., Summerfield, R.J. and Lawn, R.J., 1995. From evaluation descriptors of times to flowering to the genetic characterization of flowering responses to photoperiod and temperature. *Plant Genetic Resources Newsletter*, 103, 36-38.
169. Ellis, R.H. and Summerfield R.J., 1995. A phenological model and its potential use in legume crop breeding. In *Autumn-Sowing of Lentil in the Highlands of West Asia and North Africa* (eds J.D.H. Keatinge and I Küsmenoglu), pp. 107-120. Central Research Institute for Field Crops, Ankara.
170. Hadley P., Batts, G. R., Ellis R.H., Morison, J.I.L., Pearson, S. and Wheeler, T.R., 1995. Temperature gradient chambers for research on global environment change. II. A twin-

- wall tunnel system for low stature, field grown crops using a split heat pump: technical report. *Plant, Cell and Environment*, 18, 1055-1063.
171. Hong, T.D. and Ellis, R.H., 1995. Interspecific variation in seed storage behaviour within two genera - *Coffea* and *Citrus*. *Seed Science and Technology*, 23, 165-181.
 172. Keatinge, J.D.H., Qi, A., Kusmenoglu, I., Ellis, R.H., Summerfield, R.J., Erskine, W. and Beniwal, S.P.S., 1995. Defining critical weather events to predict the phenological development of lentil adapted to winter sowing in the highlands of West-Asia. *Agricultural and Forest Meteorology*, 74: 251-263.
 173. Keatinge, J.D.H., Qi, A., Kusmenoglu, I., Ellis, R.H., Summerfield, R.J., Erskine, W. and Beniwal, S.P.S., 1995. Selecting lentil genotypes for winter-sowing in the Turkish highlands. In *Improving Production and Utilisation of Grain Legumes*, pp. 142-143. European Association for Grain Legume Research, Paris.
 174. Lawn, R.J., Summerfield, R.J., Ellis, R.H., Qi, A., Roberts, E.H., Chay, P.M. Brouwer, J.B., Rose, J.L. and Yeates, S.J., 1995. Towards the reliable prediction of time to flowering in six annual crops. VI. Applications in crop improvement. *Experimental Agriculture*, 31, 89-108.
 175. Summerfield, R.J., Erskine, W., Ellis, R.H. and Keatinge, J.D.H., 1995. Prediction of photothermal flowering responses in a world lentil (*Lens culinaris*) collection. In *Improving Production and Utilisation of Grain Legumes*, pp. 146-147. European Association for Grain Legume Research, Paris.
 176. Tester, R.F., Morrison, W.R., Ellis, R.H., Piggott, J.R., Batts, G.R., Wheeler, T.R., Morison, J.I.L., Hadley, P. and Ledward, D.A., 1995. Effects of elevated growth temperature and carbon dioxide levels on some physicochemical properties of wheat starch. *Journal of Cereal Science*, 22, 63-71.
 177. Wheeler, T.R., Daymond, A.J., Ellis, R.H., Hadley, P. and Morison, J.I.L., 1995. Experiments on the effects of increased temperature and/or elevated concentrations of carbon dioxide on crops: field tunnel experiments on onion. In *Climate Change and Agriculture in Europe: Assessment of Impacts and Adaptations* (eds. P.A. Harrison, R.E. Butterfield and T.E. Downing), pp. 114-124. Environmental Change Unit, University of Oxford, Oxford.
 178. Wheeler, T.R., Ellis, R.H., Hadley, P. and Morison, J.I.L., 1995. Effects of CO₂, temperature and their interaction on the growth, development and yield of cauliflower (*Brassica oleracea* L. *botrytis*). *Scientia Horticulturae*, 60, 181-197.
 179. Wheeler, T.R., Oleson, J.E., Daymond, A.J., Ellis, R.H., Hadley, P. and Morison, J.I.L., 1995. Modelling the effects of climate change and climatic variability on crops at the site scale: Effects on onion. In *Climate Change and Agriculture in Europe: Assessment of Impacts and Adaptations* (eds. P.A. Harrison, R.E. Butterfield and T.E. Downing), pp. 196-206. Environmental Change Unit, University of Oxford, Oxford.
 180. Batts, G.R., Wheeler, T.R., Morison, J.I.L., Ellis, R.H. and Hadley, P., 1996. Developmental and tillering of responses of winter wheat (*Triticum aestivum*) crops to CO₂ and temperature. *Journal of Agricultural Science, Cambridge*, 127, 23-35.
 181. Craufurd, P.Q., Ellis, R.H., Summerfield, R.J. and Menin, L. 1996a. Development in cowpea (*Vigna unguiculata*). I. The influence of temperature on seed germination and seedling emergence. *Experimental Agriculture*, 32, 1-12.
 182. Craufurd, P.Q., Qi, A., Ellis, R.H., Summerfield, R.J. and Roberts E.H., 1996b. Development in cowpea (*Vigna unguiculata*). II. Effects of temperature and saturation

- deficit on time to flowering in photoperiod-insensitive genotypes. *Experimental Agriculture*, 32, 13-28.
183. Craufurd, P.Q., Roberts, E.H., Ellis, R.H. and Summerfield, R.J., 1996. A stability analysis of time to flowering as a screen for responsiveness to temperature and photoperiod in cowpea (*Vigna unguiculata*). *Euphytica*, 88, 77-84.
184. Craufurd, P.Q., Qi, A., Summerfield, R.J., Ellis, R.H. and Roberts E.H., 1996c. Development in cowpea (*Vigna unguiculata*). III. Effects of temperature and photoperiod on time to flowering in photoperiod-sensitive genotypes and screening for photothermal responses. *Experimental Agriculture*, 32, 29-40.
185. Ellis, R.H. and Hong, T.D., 1996. Induction of desiccation tolerance in seeds. In *Intermediate/Recalcitrant Tropical Forest Tree Seeds* (eds. A.S. Ouedraogo, K. Poulsen and F. Stubsgaard), pp. 127-135. IPGRI, Rome, and DANIDA Forest Seed Centre, Humlebaek, Denmark.
186. Ellis, R.H. and Hong, T.D., 1996. Seed quality: Seed development and storage. In *Proceedings of the International Symposium on Recent Advances in Tropical Seed Technology and Planting Stock Production* (ed A.C. Yapa), pp. 80-92. ASEAN Forest Tree Seed Centre, Muak-Lek, Saraburi, Thailand.
187. Ellis, R.H., Hong, T.D., Astley, D., Pinnegar, A.E. and Kraak, H.L., 1996. Survival of dry and ultra-dry seeds of carrot, groundnut, lettuce, oilseed rape, and onion during five year's hermetic storage at two temperatures. *Seed Science and Technology*, 24, 347-358.
188. Hong, T.D. and Ellis, R.H., 1996. *A protocol to determine seed storage behaviour*, 64 pp. IPGRI, Rome.
189. Hong, T.D. and Ellis, R.H., 1996. *Ex situ* biodiversity conservation by seed storage: multiple-criteria keys to estimate seed storage behaviour. *Seed Science and Technology*, 25, 157-161.
190. Hong, T.D., Linington, S. and Ellis, R.H., 1996. *Seed storage behaviour: a compendium*, 656 pp. IPGRI, Rome.
191. Keatinge, J.D.H., Qi, A., Kusmenoglu, I., Ellis, R.H., Summerfield, R.J., Erskine, W. and Beniwal, S.P.S., 1996. Using genotypic variation in flowering responses to temperature and photoperiod to select lentil for West Asian highlands. *Agricultural and Forest Meteorology*, 78, 53-65.
192. Keatinge, J.D.H., Qi, A., Wheeler, T.R., Ellis, R.H., Craufurd, P.Q. and Summerfield, R.J., 1996. Photothermal effects on the phenology of annual legume crops with potential for use as cover crops with potential for use as cover crops and green manures in tropical and sub-tropical hillside environments. *Field Crop Abstracts*, 49, 1119- 1130.
193. Roberts, E.H., Qi, A., Ellis, R.H., Summerfield, R.J., Lawn, R.J. and Shanmugasandaram, S., 1996. Use of field observations to characterise genotypic flowering responses to photoperiod and temperature: a soyabean exemplar. *Theoretical and Applied Genetics*, 93, 519-533.
194. Sanhewe, A.J. and Ellis, R.H., 1996a. Seed development and maturation in *Phaseolus vulgaris*. I. Ability to germinate and to tolerate desiccation. *Journal of Experimental Botany*, 47, 949-958.
195. Sanhewe, A.J. and Ellis, R.H., 1996b. Seed development and maturation in *Phaseolus vulgaris*. II. Post-harvest longevity in air-dry storage. *Journal of Experimental Botany*, 47, 959-965.

196. Sanhewe, A.J., Ellis, R.H., Hong, T.D., Wheeler, T.R., Batts, G.R., Hadley, P. and Morison, J.I.L., 1996. The effect of temperature and CO₂ on seed quality development in wheat (*Triticum aestivum* L.). *Journal of Experimental Botany*, 47, 631-637.
197. Summerfield, R.J., Ellis, R.H. and Craufurd, P.Q., 1996. Phenological adaptation to cropping environment. From evaluation descriptors of times to flowering to the genetic characterisation of flowering responses to photoperiod and temperature. *Euphytica*, 92, 281-286.
198. Wheeler, T.R., Batts, G.R., Ellis, R.H., Hadley, P. and Morison, J.I.L., 1996. Growth and yield of winter wheat (*Triticum aestivum*) crops in response to CO₂ and temperature. *Journal of Agricultural Science, Cambridge*, 127, 37-48.
199. Wheeler, T.R., Ellis, R.H., Hadley, P., Morison, J.I.L., Batts, G.R. and Daymond, A.J., 1996. Assessing the effects of climate change on field crop production. *Aspects of Applied Biology*, 45, 49-54.
200. Wheeler, T.R., Hong, T.D., Ellis, R.H., Batts, G.R., Morison, J.I.L. and Hadley, P., 1996. The duration and rate of grain growth, and harvest index, of wheat (*Triticum aestivum* L.) in response to temperature and CO₂. *Journal of Experimental Botany*, 47, 623-630.
201. Yin, X., Kropff, M.J. and Ellis, R.H., 1996. Rice flowering in response to diurnal temperature amplitude. *Field Crops Research*, 48, 1-10.
202. Batts, G.R., Morison, J.I.L., Ellis, R.H., Hadley, P. and Wheeler, T.R., 1997. Effects of CO₂ and temperature on growth and yield of crops of winter wheat over four seasons. *European Journal of Agronomy*, 7, 43-52.
203. Craufurd, P.Q., Summerfield, R.J., Ellis, R.H. and Roberts, E.H., 1997. Photoperiod, temperature, and the growth and development of cowpea. In *Advances in Cowpea Research* (eds B.B. Singh, D.R. Mohan Raj, K.E. Dashiell and L.E.N. Jackai) pp.75-86. IITA, Ibadan and JIRCAS, Tsukuba.
204. Daymond, A.J., Wheeler, T.R., Hadley, P., Ellis, R.H. and Morison, J.I.L., 1997. The growth, development and yield of onion (*Allium cepa* L.) in response to temperature and CO₂. *Journal of Horticultural Science*, 72, 135-145.
205. Ellis, R.H., 1997. Determining appropriate seed sowing rates. In *Precision Agriculture '97, Volume I. Spatial Variability in Soil and Crop* (ed. J.V. Stafford), pp. 281-288. BIOS Scientific Publishers Ltd, Oxford.
206. Ellis, R.H., Black, M., Murdoch, A.J. and Hong, T.D. (Eds). 1997. *Basic and Applied Aspects of Seed Biology*, 823 pp. Kluwer Academic Publishers, Dordrecht.
207. Ellis, R.H., Qi, A., Craufurd, P.Q., Summerfield, R.J. and Roberts, E.H., 1997. Effects of photoperiod, temperature and asynchrony between thermoperiod and photoperiod on development to panicle initiation in sorghum. *Annals of Botany*, 79, 169-178.
208. Ellis, R.H. and Salahi, M., 1997. Optimising inputs for contrasting cultivars: Quantifying the effects of plant population density and nitrogen fertiliser on the yield of four cultivars of spring wheat. *Aspects of Applied Biology*, 50, 139-146.
209. Ellis, R.H., Summerfield, R.J., Qi, A. and Roberts, E.H., 1997. Adaptation of soybean: Implications for crop improvement of flowering responses to photoperiod and temperature. In *Proceedings World Soybean Research Conference V* (ed. B. Napompeth), pp. 334-340. Kasetsart University Press, Bangkok.
210. Ellis, R.H., Zanakakis, G.N. and Summerfield, R.J., 1997. Changes in seed quality during seed development in soybean cv. Bossier. In *Proceedings World Soybean Research Conference V* (ed. B. Napompeth), pp. 316-319. Kasetsart University Press, Bangkok.

211. Fleming, J.E., Ellis, R.H., John, P., Summerfield, R.J. and Roberts, E.H., 1997. Developmental implications of photoperiod sensitivity in soybean (*Glycine max* [L.] Merr.). *International Journal of Plant Science*, 158, 142-151.
212. Hong, T.D. and Ellis, R.H., 1997. The effect of the initial rate of drying on the subsequent ability of immature seeds of Norway maple (*Acer platanoides* L.) to survive rapid desiccation. *Seed Science Research*, 7, 41-45
213. Hong, T.D., Ellis, R.H. and Moore, D., 1997. Development of a model to predict the effect of temperature and moisture on fungal spore longevity. *Annals of Botany*, 79, 121-128.
214. Jones, S.K., Ellis, R.H. and Gosling, P.G., 1997. Loss and induction of conditional dormancy in seeds of Sitka spruce maintained moist at different temperatures. *Seed Science Research*, 7, 351-358.
215. Jones, S.K., Gosling, P.G. and Ellis, R.H., 1997. Dormancy in Sitka spruce seeds. In *Basic and Applied Aspects of Seed Biology* (eds R.H. Ellis, M. Black, A.J. Murdoch and T.D. Hong), pp. 235-244. Kluwer Academic Publishers, Dordrecht.
216. Keatinge, J.D.H., Wheeler, T.R., Shah, P.B., Subedi, M., Musitwa, F., Caspedes, E., Qi, A., Ellis, R.H. and Summerfield, R.J., 1997. *Potential For And Constraints To The Production Of Multi-Purpose Cover Crop Legumes In Hillside Environments In Key Department For International Development (DFID) Target Countries*, 46 pp. Department of Agriculture, The University of Reading, Reading.
217. Lipman, E., Ellis, R.H. and Gass, T. (Eds), 1997. *Maize Genetic Resources in Europe*, 57 pp. International Plant Genetic Resources Institute, Rome.
218. Madden, A.D., Ellis, R.H. and Heath, S.B., 1997. SEED: a computer-assisted learning package on seed longevity. In *Basic and Applied Aspects of Seed Biology* (eds R.H. Ellis, M. Black, A.J. Murdoch and T.D. Hong), pp. 651-655. Kluwer Academic Publishers, Dordrecht.
219. Mwasha, A.J., Ellis, R.H. and Hong, T.D., 1997. The effect of desiccation on the subsequent survival of seeds of cashew (*Anacardium occidentale* L.) *Seed Science and Technology*, 25, 115-122.
220. Roberts, E.H., Summerfield, R.J. and Ellis, R.H., 1997. Reproductive development and crop adaptation. *Journal of Biological Education*, 31, 97-105.
Doi.10.1080/00219266.1997.9655542
221. Roberts, E.H., Summerfield, R.J., Ellis, R.H., Craufurd, P.Q. and Wheeler, T.R., 1997. The induction of flowering. In *The Physiology of Vegetable Crops* (ed. H.C. Wien), pp. 69-99. CAB International, Wallingford.
222. Roberts, E.H., Summerfield, R.J., Ellis, R.H. and Qi, A., 1997. Graphic analysis of flowering adaptation to climate in soybean. In *Proceedings World Soybean Research Conference V* (ed. B. Napompeth), pp. 357-361. Kasetsart University Press, Bangkok.
223. Roberts, E.H., Summerfield, R.J., Upadhyay, A.P., Ellis, R.H. and Qi, A., 1997. Photothermal flowering responses of maturity isolines of soybean cv. Clark. In *Proceedings World Soybean Research Conference V* (ed. B. Napompeth), pp. 345-347. Kasetsart University Press, Bangkok.
224. Summerfield, R.J., Ellis, R.H., Craufurd, P.Q., Aiming, Q., Roberts, E.H. and Wheeler, T.R., 1997. Environmental and genetic regulation of flowering of tropical annual crops. *Euphytica*, 96, 83-91.

225. Summerfield, R.J., Roberts, E.H., Ellis, R.H., Qi, A., Craufurd, P.Q. and Wheeler, T.R. 1997. Timing it right - prediction of flowering. *Biologist*, 44, 412-416.
226. Wheeler, T.R., Chatzialioglu, A., Craufurd, P.Q., Ellis, R.H. and Summerfield, R.J., 1997a. Dry matter partitioning in groundnut exposed to high temperature stress. *Crop Science*, 37, 1507-1513.
227. Wheeler, T.R. and Ellis, R.H. 1997. Assessment of the effects of climate change on winter wheat production. In *Soil, Plant and Environment Relationships* (ed. J. Nagy), pp. 45-50. Debrecen Agricultural University, Debrecen.
228. Wheeler, T.R., Keatinge, J.D.H., Aiming, Q., Ellis, R.H. and Summerfield, R.J., 1997. Adaptación de leguminosas de cobertura al medio ambiente en laderas en Bolivia. In, *Estrategias para practicas mejoradas de conservacion de suelo y agua en los sistemas de produccion de laderas en valles Andinos de Bolivia*, (ed B.G. Sims), pp. 157-159. Silsoe Research Institute Publication IDG/97/20.
229. Wheeler, T.R., Keatinge, J.D.H., Ellis, R.H., Aiming, Q. and Summerfield, R.J., 1997b. Selecting legume cover crops to counter soil erosion and losses in soil fertility in hillside farming systems. *Agroforestry Forum*, 8 (4), 30-34.
230. Asumadu, H., Summerfield, R.J., Ellis, R.H. and Qi, A., 1998. Variation in the durations of the photoperiod-sensitive and photoperiod insensitive phases of post-first flowering development in maturity isolines of soyabean [*Glycine max* (L.) Merrill] 'Clark'. *Annals of Botany*, 82, 773-778.
231. Batts, G.R., Ellis, R.H., Morison, J.I.L. and Hadley, P., 1998. Canopy development and tillering of field-grown crops of two contrasting cultivars of winter wheat (*Triticum aestivum*) in response to CO₂ and temperature. *Annals of Applied Biology*, 133, 101-109.
232. Bettey, M., Sinniah, U.R., Finch-Savage, W.E. and Ellis, R.H., 1998. Irrigation and seed quality development in rapid-cycling brassica: accumulation of stress proteins. *Annals of Botany*, 82, 657-663.
233. Batts, G.R., Ellis, R.H., Morison, J.I.L., Nkemka, P.N., Gregory, P.J. and Hadley, P. 1998. Yield and partitioning in crops of contrasting cultivars of winter wheat in response to CO₂ and temperature in field studies using temperature gradient tunnels. *Journal of Agricultural Science, Cambridge*, 130, 17-27.
234. Craufurd, P.Q., Aiming, Qi, Ellis, R.H., Summerfield, R.J., Roberts, E.H. and Mahalakshmi, V., 1998. Effect of temperature on time to panicle initiation and leaf appearance in sorghum. *Crop Science*, 38, 942-947.
235. Ellis, R.H., 1998. Viability and physical purity. In *Encyclopaedia of Seed Production of World Crops* (eds A.F. Kelly and R.A.T. George), pp. 102-111. John Wiley and Sons, Chichester.
236. Ellis, R.H., 1998. Longevity of seeds stored hermetically at low moisture contents. *Seed Science Research*, 8, Supplement No. 1, 9-10.
237. Ellis, R.H. and Roberts, E.H., 1998. How to store seeds to conserve biodiversity. *Nature*, 395, 758.
238. Ellis, R.H., Summerfield, R.J., Omanga, P.A., Qi, A. and Roberts, E.H., 1998. Flowering in pigeonpea in Kenya: sensitivity to photoperiod and temperature during pre-flowering development. *Experimental Agriculture* 34, 249-258.

239. Ferris, R., Ellis, R.H., Wheeler, T.R. and Hadley, P., 1998. Effect of high temperature stress at anthesis on grain yield and biomass of field-grown crops of wheat. *Annals of Botany*, 82, 631-639.
240. Ferris, R., Wheeler, T.R., Hadley, P. and Ellis, R.H., 1998. Recovery of photosynthesis after environmental stress in soybean grown under elevated CO₂. *Crop Science*, 38, 948-955.
241. Ferris, R., Wheeler, T.R., Hadley, P. and Ellis, R.H., 1998. Water deficit and high temperature stress in soybean under ambient or elevated CO₂ : photosynthetic recovery and seed yield. *Journal of Experimental Botany*, 49 Supplement, 27.
242. Hong, T.D. and Ellis, R.H., 1998. Contrasting seed storage behaviour among different species of *Meliaceae*. *Seed Science and Technology*, 26, 77-95.
243. Hong, T.D., Jenkins, N.E., Ellis, R.H. and Moore, D., 1998. Limits to the negative logarithmic relationship between moisture content and longevity in conidia of *Metarhizium flavoviride*. *Annals of Botany*, 81, 625-630.
244. Jones, S.K., Gosling, P.G. and Ellis, R.H., 1998. Reimposition of conditional dormancy during air-dry storage of pre-chilled Sitka spruce seeds. *Seed Science Research*, 8, 113-122.
245. Keatinge, J.D.H., Aiming, Qi, Wheeler, T.R., Ellis, R.H. and Summerfield, R.J., 1998. Effects of temperature and photoperiod on phenology as a guide to the selection of annual legume cover and green manure crops for hillside farming systems. *Field Crops Research*, 57, 139-152.
246. Keatinge, J.D.H., Wheeler, T.R., Musitwa, F., Kuribuza, D., Aiming, Q., Ellis, R.H. and Summerfield, R.J., 1998. Selecting legume cover crops to improve soil fertility and counter soil erosion in Ugandan hillside farming systems. In *Modern Methods from Traditional Soil and Water Conservation Technologies* (eds S.R. Briggs, J. Ellis-Jones and S.J. Twomlow), pp. 182-186. Silsoe Research Institute, Silsoe.
247. Lima, M.de J.V. Jr., Ellis, R.H., Hong, T.D. and Ferraz, I.D.K., 1998. Drying method and longevity of immature seeds of cedro (*Cedrela odorata* L. – *Meliaceae*). *Seed Science and Technology*, 26, 813-821.
248. Qi, A., Keatinge, J.D.H., Wheeler, T.R., Summerfield, R.J. and Ellis, R.H., 1998. Using legume cover crops to protect soil erosion and soil fertility decline in hillside farming systems. In *Research on Mountain Disasters and Environmental Protection across Taiwan Strait*. (ed. P.Lui), pp. 401-411. Science and Technology Press, Schiwan Province, China.
249. Silim Nahdy, M., Ellis, R.H., Silim, S.N. and Smith, J., 1998. Field infestation of pigeonpea (*Cajanus cajan* (L.) Millsp) by *Callosobruchus chinensis* (L.) in Uganda. *Journal of Stored Products Research*, 34, 207-216.
250. Silim Nahdy, M., Silim, S.N. and Ellis, R.H., 1998. Efficacy of some cultural management methods on *Callosobruchus chinensis* (L) infestation during storage of pigeonpea seed. *Uganda Journal of Agricultural Sciences*, 3, 7-12.
251. Sinniah, U.R., Ellis, R.H. and John, P., 1998. Irrigation and seed quality development in seed quality development in rapid-cycling Brassica: seed germination and longevity. *Annals of Botany*, 82, 309-314.
252. Sinniah, U.R., Ellis, R.H. and John, P., 1998. Irrigation and seed quality development in seed quality development in rapid-cycling Brassica: soluble carbohydrates and heat-stable proteins. *Annals of Botany*, 82, 647-655.

253. Summerfield, R.J., Asumadu, H., Ellis, R.H. and Qi, A., 1998. Characterization of the photoperiodic response of post-flowering development in maturity isolines of soyabean [*Glycine max* (L.) Merrill] 'Clark'. *Annals of Botany*, 82, 765-771.
254. Whitehead, S., Summerfield, R.J., Muehlbauer, F., Ellis, R.H. and Wheeler, T.R., 1998. Biomass production, partitioning and structure in lentil. *Grain Legumes*, 22, 8-9.
255. Wheeler, T.R., Daymond, A.J., Ellis, R.H., Morison, J.I.L. and Hadley, P., 1998. Post-harvest spouting of onion bulbs grown in different temperature and CO₂ environments in the UK. *Journal of Horticultural Science and Biotechnology*, 73, 750-754.
256. Craufurd, P.Q., Mahalakshmi, V., Bidinger, F.R., Mukura, S.Z., Chantareau, J., Omanga, P.A., Qi, A., Roberts, E.H., Ellis, R.H., Summerfield, R.J. and Hammer, G.L., 1999. Adaptation of sorghum: characterisation of genotypic flowering responses to temperature and photoperiod. *Theoretical and Applied Genetics*, 99, 900-911.
257. Craufurd, P.Q., Wheeler, T.R., Ellis, R.H., Summerfield, R.J. and Williams, J.H., 1999. Effect of temperature and water deficit on water-use efficiency, carbon isotope discrimination, and specific leaf area in peanut. *Crop Science*, 39, 136-142.
258. Crook, D.G., Ellis, R.H. and Summerfield, R.J., 1999. Winter-sown lentil and its impact upon a subsequent cereal crop. *Aspects of Applied Biology*, 56, 241-248.
259. Dourado, A.M., Hong, T.D., Ellis, R.H. and Erskine, P., 1999. Daphne Seed. *Quarterly Bulletin of the Alpine Garden Society*, 67, 81-86.
260. Ellis, R.H., Salahi, M. and Jones, S.A., 1999. Yield-density equations can be extended to quantify the effect of applied nitrogen and cultivar on wheat grain yield. *Annals of Applied Biology*, 134, 347-352.
261. Ferris, R., Wheeler, T.R., Ellis, R. H. and Hadley, P., 1999. Seed yield after environmental stress in soybean grown under elevated CO₂. *Crop Science*, 39, 710-718.
262. Frogbrook, Z.L., Oliver, M.A., Salahi, M. and Ellis, R.H., 1999. Comparing the relations in the spatial variation of soil and crop attributes. In *Precision Agriculture '99* (ed J.V. Stafford), pp. 397-407. Sheffield Academic Press.
263. Gooding, M.J., Salahi, M. and Ellis, R.H., 1999. Spatial variation in the response of wheat grain yield and quality to late nitrogen. In *Precision Agriculture '99* (ed J.V. Stafford), pp. 531-538. Sheffield Academic Press, Sheffield.
264. Hong, T.D., Ellis, R.H., Buitink, J., Walters, C., Hoekstra, F.A. and Crane, J., 1999. A model of the effect of temperature and moisture on pollen longevity in air-dry storage environments. *Annals of Botany*, 83, 167-173.
265. Hong, T.D., Jenkins, N.E. and Ellis, R.H., 1999. Fluctuating temperature and the longevity of conidia of *Metarhizium flavoviride* in storage. *Biocontrol Science and Technology*, 9, 165-176.
266. Keatinge, J.D.H., Qi, A., Wheeler, T.R., Musitwa, F., Franks, N.A.P., Kuribuza, D., Ellis, R.H. and Summerfield, R.J., 1999. Potential annual-sown legumes for low-input systems in the East African highlands of Southwestern Uganda. *Mountain Research and Development*, 19, 345-353.
267. Keatinge, J.D.H., Qi, A., Wheeler, T.R., Subedi, M., Shah, P.B., Ellis, R.H. and Summerfield, R.J., 1999. Annual legume species as green manures/cover crops in low-input farming systems of Nepal. *Mountain Research and Development*, 19, 325-332.

268. Qi, A., Ellis, R.H., Keatinge, J.D.H., Wheeler, T.R., Tarawali, S.A. and Summerfield, R.J., 1999. Differences in the effects of temperature and photoperiod on progress to flowering among diverse *Mucuna* spp. *Journal of Agronomy and Crop Science*, 182, 249-258.
269. Qi, A., Wheeler, T.R., Keatinge, J.D.H., Ellis, R.H., Summerfield, R.J. and Craufurd, P.Q., 1999. Modelling the effects of temperature on the rates of seedling emergence and leaf appearance in legume cover crops. *Experimental Agriculture*, 35, 327-344.
270. Silim Nahdy, M., Silim, S.N. and Ellis, R.H., 1999. Some aspects of pod characteristics predisposing pigeonpea (*Cajanus cajan* (L.) Millsp.) to infestation by *Callosobruchus chinensis* (L.). *Journal of Stored Products Research*, 35, 47-55.
271. Wheeler, T.R., Qi, A., Keatinge, J.D.H., Ellis, R.H. and Summerfield, R.J., 1999. Selecting legume cover crops for hillside environments in Bolivia. *Mountain Research and Development*, 19, 318-324.
272. Craufurd, P.Q., Wheeler, T.R., Ellis, R.H., Summerfield, R.J. and Vara Prasad, P.V., 2000. Escape and tolerance to high temperature at flowering in groundnut (*Arachis hypogaea* L.). *Journal of Agricultural Science, Cambridge*, 135, 371-378.
273. Ellis, R.H. Asumadu, H., Qi, A. and Summerfield, R.J., 2000. Effects of photoperiod and maturity genes on plant growth, partitioning, radiation use efficiency, and yield in soyabean [*Glycine max* (L.) Merrill 'Clark']. *Annals of Botany*, 85, 335-343.
274. Ellis, R.H., Sinniah, U.R. and John, P., 2000. Irrigation and Seed Quality Development in rapid-cycling brassica. In *Seed Biology: Advances and Applications* (eds M. Black, K.J. Bradford and J. Vazquez-Ramos), pp. 113-121. CAB International, Wallingford.
275. Gooding, M.J., Murdoch, A.J. and Ellis, R.H., 2000. The value of seeds. In *Seed Technology and its Biological Basis* (eds M. Black and J.D. Bewley), pp.3-41. Sheffield Academic Press, Sheffield.
276. Hong, T.D., Gedebo, A. and Ellis, R.H., 2000. Accumulation of sugars during the onset and development of desiccation tolerance in immature seeds of Norway maple (*Acer platanoides* L.) stored moist. *Seed Science Research*, 10, 147-152.
277. Hong, T.D., Jenkins, N.E. and Ellis, R.H., 2000. The effects of duration of development and drying regime on the longevity of conidia of *Metarhizium flavoviride*. *Mycological Research*, 104, 662-665.
278. Kebreab, E., France, J., Ellis, R.H. and Garforth, C., 2000. An evaluation of uptake and developmental impact in the semi-arid tropics of four crop production models. *Journal of Agricultural Science*, 134, 173-180.
279. Lima, M. de J.V.Jr., Ellis, R.H. and Ferraz, I.D.K., 2000. Seed quality development in sumauma (*Ceiba pentandra* [L.] Gaertn.). *Seed Science and Technology*, 28, 739-751.
280. Murdoch, A.J. and Ellis, R.H. Dormancy, viability and longevity. In *Seeds: The Ecology of Regeneration in Plant Communities* (ed. M. Fenner), 2000, pp.183-214. CAB International, Wallingford.
281. Qi, A., Keatinge, J.D.H., Wheeler, T.R., Papastylianou, I., Subedi, M., Shah, P.B., Musitwa, F., Cespedes, E., Bening, C., Ellis, R.H. and Summerfield, R.J., 2000. Validation of a photothermal phenology model for predicting dates of flowering and maturity in legume cover crops using field observations. *Biological Agriculture and Horticulture*, 17, 349-365.

282. Wheeler, T.R., Craufurd, P.Q., Ellis, R.H., Porter, J.R. and Vara Prasad, P.V., 2000. Temperature variability and the yield of annual crops. *Agriculture, Ecosystems and Environment*, 82, 159-167.
283. Whitehead, S.J., Summerfield, R.J., Muehlbauer, F.J., Coyne, C.J., Ellis, R.H. and Wheeler, T.R., 2000. Crop improvement and the accumulation and partitioning of biomass and nitrogen in lentil. *Crop Science*, 40, 110-120.
284. Dourado, A., Hong, T.D. and Ellis, R.H., 2001. Breaking dormancy in *Daphne* seeds. In *The Smaller Daphnes* (ed. C. Grey-Wilson), pp. 12-14. Royal Horticultural Society, Wisley, Surrey.
285. Ellis, R.H., Gooding, M.J., Shewry, P.R., Tatham, A.S. and Schofield, D.R., 2001. Moisture stress during wheat grain development. *Aspects of Applied Biology*, 64, 133-134.
286. Feeney, K., Tatham, A.S., Wright, R., Arnold, G., Shewry, P.R., Gooding, M.J., Ellis, R.H., Wellner, N. and Belton, P.S., 2001. Effects of water availability and growth temperature during grain filling on protein assembly and properties in wheat. *Aspects of Applied Biology*, 64, 135-136.
287. Gooding, M.J., Pinyosinwat, A. and Ellis, R.H., 2001. The response of wheat grain nitrogen concentration to plant population density. *Aspects of Applied Biology*, 64, 157-162.
288. Hong, T.D., Gunn, J., Ellis, R.H., Jenkins, N.E. and Moore, D., 2001. The effect of storage environment on the longevity of conidia of *Beauveria bassiana*. *Mycological Research*, 105, 597-602.
289. Hosseini, N.M., Ellis, R.H. and Yazdi-Samadi, B., 2001. Effects of plant population density on yield and yield components of eight isolines of cv. Clark (*Glycine max* L.). *Journal of Agricultural Science and Technology*, 3, 131-139.
290. Hung, L.Q., Hong, T.D. and Ellis, R.H., 2001. Constant, fluctuating and effective temperature and seed longevity: a tomato (*Lycopersicon esculentum* Mill.) exemplar. *Annals of Botany*, 88, 465-470.
291. Mann, G., van der Graaf, J., Schofield, J.P., Gooding, M.J., Ellis, R.H. and Greenwell, P. 2001. Functional and biochemical effects on wheat flour of water availability and growth temperature during grain filling. *Aspects of Applied Biology*, 64, 137-138.
292. Ojo, D.K., Ellis, R.H. and Ajala, M.O., 2001. Effect of time of harvest on seed germination and capacity for seedling emergence in tropical soybean genotypes. *Moor Journal of Agricultural Research*, 2, 8-14.
293. Oliver, M.A., Frogbrook, Z.L., Ellis, R.H., Salahi, M. and Gooding, M.J., 2001. Exploring the spatial variation in wheat quality using geostatistics. *Aspects of Applied Biology*, 64, 207-8.
294. Frogbrook, Z.L., Oliver, M.A., Salahi, M. and Ellis, R.H., 2002. Exploring the spatial relations between cereal yield and soil chemical properties and the implications for sampling. *Soil Use and Management*, 18, 1-9.
295. Gooding, M.J., Pinyosinwat A. and Ellis, R.H., 2002. Responses of wheat grain yield and quality to seed rate. *Journal of Agricultural Science*, 138, 317-331.
296. Hong, T.D., Ellis, R.H., 2002. Optimum moisture status for the exceptional survival of seeds of arabica coffee (*Coffea arabica* L.) in medium-term storage at -20° C. *Seed Science and Technology*, 30, 131-136.

297. Hong, T.D., Ellis, R.H., Gunn, J. and Moore, D., 2002. Relative humidity, temperature, and the equilibrium moisture content of conidia of *Beauveria bassiana* (Balsamo) Vuillemin: a quantitative approach. *Journal of Stored Products Research*, 38, 33-41.
298. Léon-Lobos, P. and Ellis, R.H., 2002. Seed storage behaviour of *Fagus sylvatica* and *Fagus crenata*. *Seed Science Research*, 12, 31-37.
299. Ellis, R.H., 2003. Temperate and tropical tree seed physiology and the economy of nature. *Seed Technology*, 25, 69-77.
300. Ellis, R.H., 2003. What the public want from agriculture: Introduction. *Proceedings of the British Society of Animal Science*, 232.
301. Gooding, M.J., Ellis, R.H., Shewry, P.R. and Schofield, J.D., 2003. Effects of restricted water availability and increased temperature on the grain filling, drying and quality of winter wheat. *Journal of Cereal Science*, 37, 295-309.
302. Léon-Lobos, P. and Ellis, R.H., 2003. Low-moisture-content limits to *Nothofagus* seed longevity. In *Seed Conservation: Turning Science into Practice* (eds R.D. Smith, J.B. Dickie, S.H. Linington, H.W. Pritchard, R.J. Probert), pp. 785-795. Royal Botanic Gardens, Kew.
303. Lyall, T.W., Ellis, R.H., John, P., Hedley, C.L. and Wang, T.L., 2003. Mutant alleles at the rugosus loci in pea affect seed moisture sorption isotherms and the relations between seed longevity and moisture content. *Journal of Experimental Botany*, 54, 445-450.
304. Lyall T. W., Ellis R. H., John P., Hedley C. L. and Wang T. L., 2003. Seed quality development in wrinkled-seeded mutant peas (*Pisum sativum*). In *The Biology of Seeds: Recent Research Advances. Proceedings from the 7th International Workshop on Seeds, Salamanca Spain, May 2002* (eds G. Nicolas, K.J. Bradford, D. Come, H. Pritchard H.), pp. 41-49. CABI Publishing, Wallingford, Oxon.
305. Mai-Hong, T., Hong, T.D., Hien, N.T., and Ellis, R.H., 2003. Onset of germinability, desiccation tolerance and hardseededness in developing seeds of *Peltophorum pterocarpum* (DC) K. Heyne (Caesalpinioideae). *Seed Science Research*, 13, 323–327.
306. Pepler, S., Gooding, M.J. and Ellis, R.H., 2003. The effects of fungicides on grain water and dry matter contents during maturation of winter wheat. In *Crop Science & Technology 2003, Proceedings of the BCPC International Congress*, pp. 975-978. British Crop Protection Council, Alton, Hants.
307. Hung, L.Q., Hong, T.D. and Ellis, R.H., 2004. Factors influencing the germination of myrtle (*Lagerstroemia speciosa*) (L.) Pers. and *L. floribunda* Jack) seeds. *Seed Science and Technology*, 32, 35-41.
308. Le Tam, V.T., Hong, T.D., Ellis, R.H. and Ngoc-Tam, B.T., 2004. Seed storage of *Avicennia alba* BL. *Seed Science and Technology*, 32, 531-536.
309. Wheeler, T.R., Daymond, A.J., Morrison, J.I.L., Ellis, R.H. and Hadley, P., 2004. Acclimation of photosynthesis to elevated CO₂ in onion (*Allium cepa*) grown at a range of temperatures. *Annals of Applied Biology*, 144, 103-111.
310. Hong, T.D., Edgington, S., Ellis, R.H., de Muro, M.A. and Moore, D., 2005. Saturated salt solutions for humidity control and the survival of dry powder and oil formulations of *Beauveria bassiana* conidia. *Journal of Invertebrate Pathology*, 89, 136-143.

311. Hong, T.D., Ellis, R.H., Astley, D., Pinnegar, A.E., Groot, S.P.C. and Kraak, H.L., 2005. Survival and vigour of ultra-dry seeds after ten years of hermetic storage. *Seed Science and Technology*, 33, 449-460.
312. Hong, T.D., Ellis, R.H., Ngoc Tam, B. and Le Tam, V.T., 2005. Effects of desiccation on seed germination, cracking, fungal infection and survival in storage of *Sterculia foetida* L. *Seed Science and Technology*, 33, 705-712.
313. Kindred, D.R., Gooding, M.J. and Ellis, R.H., 2005. Nitrogen fertilizer and seed rate effects on Hagberg falling number of wheat hybrids and their parents are associated with alpha-amylase activity, grain cavity size and dormancy. *Journal of the Science of Food and Agriculture*, 85, 727-742.
314. Léon-Lobos, P. and Ellis, R.H., 2005. Seed survival in Chilean *Nothofagus* in response to desiccation and storage. *Seed Science Research*, 15, 113–123.
315. Lima, M. de J. V. Jr. and Ellis, R.H., 2005. Seed survival of four tropical tree species in response to environment. *Seed Science and Technology*, 33, 157-166.
316. Lima, M. de J. V. Jr., Ellis, R.H., Hong, T.D. and Ferraz, I.D.K., 2005. Drying method influences the development of germinability, dessication tolerance and subsequent longevity of immature seeds of sumaúma (*Ceiba pentandra* L. Gaertn. [*Bombacaceae*]). *Seed Science and Technology*, 33, 147-156.
317. Pepler S., Gooding, M.J. and Ellis, R.H., 2005. A conjoint model of grain water content and dry matter during grain development in wheat. *Journal of Agricultural Science* 143, 321. (Abstract).
318. Pepler, S., Gooding, M.J., Ford, K.E. and Ellis, R.H., 2005. A temporal limit to the association between flag leaf life extension by fungicides and wheat yields. *European Journal of Agronomy*, 22, 363–373.
319. Pepler, S., Gooding, M.J., Ford, K.E., Ellis, R.H. and Jones, S.A., 2005. Delaying senescence of wheat with fungicides has interacting effects with cultivar on grain sulphur concentration but not with sulphur yield or nitrogen:sulphur ratios. *European Journal of Agronomy*, 22, 405–416.
320. Garcia, X., Hong, T.D. and Ellis, R.H., 2006. Seed dormancy and germination of *Ficus lundellii* and tropical forest restoration. *Tree Physiology*, 26, 81-85.
321. Pepler, S., Gooding, M.J. and Ellis, R.H., 2006. Modelling simultaneously water content and dry matter dynamics of wheat grains. *Field Crops Research*, 95, 49-63.
322. Ellis, R.H. and Hong, T.D., 2006. Temperature sensitivity of the low-moisture-content limit to negative seed longevity-moisture content relations in hermetic storage. *Annals of Botany*, 97, 785-791.
323. Mai-Hong, T., Hong, T.D., Hien, N.T., Han, H.H., Tung, T.D., Le-Tam, V.T., Ngoc-Tam, B. and Ellis, R.H., 2006. Seed development, maturation and storage behaviour of *Mimosa elengi* L. *New Forests*, 32, 9 – 19.
324. Usberti, R., Roberts, E.H. and Ellis, R.H., 2006. Prediction of cottonseed longevity. *Pesquisa Agropecuária Brasileira*, 41, 1435-1441.
325. Ellis, R.H. and Hong, T.D., 2007. Seed longevity – moisture content relationships in hermetic and open storage. *Seed Science and Technology*, 35, 423-431.
326. Ellis, R.H. and Hong, T.D., 2007. Quantitative response of the longevity of seed of twelve crops to temperature and moisture in hermetic storage. *Seed Science and Technology*, 35, 432-444.

327. Ellis, R.H., Mai-Hong, T., Hong, T.D., Tan, T.T., Xuan-Chuong, N.D., Hung, L.Q., Ngoc-Tam, B. and Le-Tam, V.T., 2007. Comparative analysis by protocol and key of seed storage behaviour of sixty Vietnamese tree species. *Seed Science and Technology*, 35, 460-476.
328. Butler, L. H., Hay, F. R., Ellis, R. H. and Smith, R. D., 2009. Post-abscission, pre-dispersal seeds of *Digitalis purpurea* remain in a developmental state that is not terminated by desiccation *ex planta*. *Annals of Botany*, 103, 785-794.
329. Butler L.H., Hay, F.R., Ellis, R.H., Smith, R.D. and Murray, T.B., 2009. Priming and re-drying improve the survival of mature seeds of *Digitalis purpurea* during storage. *Annals of Botany*, 103, 1261–1270.
330. Ellis, R. H., 2009. Seed quality development. In *Seed Production and Treatment in a Changing Environment* (ed. A.J. Biddle), pp. 11-16. BCPC, Alton, Hampshire.
331. Pérez-García, F., Gómez-Campo, C. and Ellis, R.H., 2009. Successful long-term ultra dry storage of seed of 15 species of Brassicaceae in a genebank: variation in ability to germinate over 40 years and dormancy. *Seed Science and Technology*, 37, 640-649.
332. Hay, F. R., Smith, R.D., Ellis, R.H. and Butler, L.H, 2010. Developmental changes in the germinability, desiccation tolerance, hardseededness, and longevity of individual seeds of *Trifolium ambiguum*. *Annals of Botany*, 105, 1035-1052.
333. Ellis, R.H., 2011. Rice seed quality development and temperature during late development and maturation. *Seed Science Research*, 21, 95-101.
334. Newton, R.J., Hay, F.R., and Ellis, R.H., 2013. Seed development and maturation in early spring-flowering *Galanthus nivalis* and *Narcissus pseudonarcissus* continues post-shedding with little evidence of maturation in planta. *Annals of Botany*, 111, 945–955. <https://doi.org/10.1093/aob/mct051>
335. Lima, M.de Jr., Hong, T.D., Arruda, Y.M.B.C., Mendes, A.M.S. and Ellis, R.H., 2014. Classification of seed storage behaviour of 67 Amazonian tree species. *Seed Science and Technology*, 42, 363-392.
336. Coast, O., Ellis, R. H., Murdoch, A. J., Quiñones, C. and Jagadish, K. S. V., 2015. High night temperature induces contrasting responses for spikelet fertility, spikelet tissue temperature, flowering characteristics and grain quality in rice. *Functional Plant Biology*, 42, 149-161.
337. Martínez-Eixarch, M. and Ellis, R. H., 2015. Temporal sensitivity of rice seed development from spikelet fertility to viable mature seed to extreme-temperature. *Crop Science*, 55, 354-364.
338. Newton, R.J., Hay, F.R. and Ellis, R.H., 2015. Ecophysiology of seed dormancy and the control of germination in early spring-flowering *Galanthus nivalis* and *Narcissus pseudonarcissus* (Amaryllidaceae). *Botanical Journal of the Linnean Society*, 177, 246–262. <https://doi.org/10.1111/boj.12240>
339. Whitehouse, K.J., Hay, F.R. and Ellis, R.H., 2015. Increases in the longevity of desiccation-phase developing rice seeds: response to high-temperature drying depends on harvest moisture content. *Annals of Botany*, 116, 247-59.
340. Coast, O., Murdoch, A. J., Ellis, R. H., Hay, F. R. and Jagadish, K. S.V., 2016. Resilience of rice (*Oryza* spp.) pollen germination and tube growth to temperature stress. *Plant, Cell & Environment*, 39, 26-37.

341. Ellis, R. H. and Yadav, G., 2016. Effect of simulated rainfall during wheat seed development and maturation on subsequent seed longevity is reversible. *Seed Science Research*, 26, 67–76.
342. Yadav, G. and Ellis, R. H., 2016. Development of ability to germinate and of longevity in air-dry storage in wheat seed crops subjected to rain shelter or simulated supplementary rainfall. *Seed Science Research*, 26, 332-341.
343. Nasehzadeh, M. and Ellis, R. H., 2017. Wheat seed weight and quality differ temporally in sensitivity to warm or cool conditions during seed development and maturation. *Annals of Botany*, 120, 479-493. <https://doi.org/10.1093/aob/mcx074>
344. Whitehouse, K.J, Hay, F.T. and Ellis, R.H., 2017. High-temperature stress during drying improves subsequent rice (*Oryza sativa* L.) seed longevity. *Seed Science Research*, 27, 281-291.
345. Yadav, G. and Ellis, R. H., 2017. Effects of rain shelter or simulated rain during grain filling and maturation on subsequent wheat grain quality in the UK. *Journal of Agricultural Science*, 155, 300-316.
346. Ellis, R.H., Nasehzadeh, M., Hanson, J. and Woldemariam, Y., 2018. Medium-term seed storage of 50 genera of forage legumes and evidence-based genebank monitoring intervals. *Genetic Resources and Crop Evolution*, 65, 607-623. <https://doi.org/10.1007/s10722-017-0558-5>
347. Tejakhod, S. and Ellis, R.H., 2018. Effect of simulated flooding during rice seed development and maturation on subsequent seed quality. *Seed Science Research*, 28, 72–81.
348. Tejakhod, S., Hammond, J.P. and Ellis, R.H., 2018. Foliar application of molybdenum reduces yield loss and pre-harvest sprouting in *japonica* rice seed subjected to simulated flooding during seed development and maturation. *Seed Science and Technology*, 46, 175-189.
349. Léon-Lobos, P. and Ellis, R., 2018. Comparison of seed desiccation sensitivity amongst *Castanea sativa*, *Quercus ilex* and *Q. cerris*. *Seed Science and Technology*, 46, 233-237. <https://doi.org/10.15258/sst.2018.46.2.05>
350. Whitehouse, K.J., Hay F.R. and Ellis, R.H., 2018. Improvement in rice seed storage longevity from high-temperature drying is a consistent positive function of harvest moisture content above a critical value. *Seed Science Research*, 28, 332–339. <https://doi.org/10.1017/S0960258518000211>
351. Yadav, G. and Ellis, R. H., 2018. Longevity of 285 seed lots of wheat in hermetic storage compared with independent estimates from the seed viability equation. *Seed Science and Technology*, 46, 341-347. <https://doi.org/10.15258/sst.2018.46.2.14>
352. Abdul Rahman, S.M. and Ellis, R.H., 2019. Seed quality in rice is most sensitive to drought and high temperature in early seed development. *Seed Science Research*, 29, 238–249. <https://doi.org/10.1017/S0960258519000217>

353. Ellis, R.H., 2019. Temporal patterns of seed quality development, decline, and timing of maximum quality during seed development and maturation. *Seed Science Research*, 29, 135-142. <http://dx.doi.org/10.1017/S0960258519000102>
354. Ellis, R.H., 2019. Climate change is hurting farmers – even seeds are under threat. *The Conversation* <https://theconversation.com/climate-change-is-hurting-farmers-even-seeds-are-under-threat-128722>
355. Ellis, R.H., Culham, A., and Zulu, D., 2019. We revealed the value of Zambia's wild yam. Why it matters. *The Conversation* <https://theconversation.com/we-revealed-the-value-of-zambias-wild-yam-why-it-matters-110367>
356. Ellis, R.H., Nasehzadeh, M., Hanson, J., Ndiwa, N. and Woldemariam, Y., 2019. Medium-term seed storage of diverse genera of forage grasses, evidence-based genebank monitoring intervals, and regeneration standards, *Genetic Resources and Crop Evolution*, 66, 723-734. <https://doi.org/10.1007/s10722-019-00748-y>
357. Tejakhod, S., Ellis, R.H., and Hammond, J.P., 2019. The effects of introgression of the Submergence1 allele into rice cultivar IR64 on post-harvest seed dormancy and longevity. *Seed Science and Technology*, 47, 93-101. <https://doi.org/10.15258/sst.2019.47.1.10>
358. Zulu, D., Ellis, R.H. and Culham, A., 2019. Collection, consumption and sale of lusala (*Dioscorea hirtiflora*) - a wild yam - by rural households in southern province, Zambia. *Economic Botany*, 73, 47–63. <https://doi.org/10.1007/s12231-018-9433-3>
359. Addy, J.W.G., Ellis, R.H., Macdonald, A.J., Semenov, M.A. and Mead, A., 2020. Investigating the effects of inter-annual weather variation (1968- 2016) on the functional response of cereal grain yield to applied nitrogen, using data from the Rothamsted Long-Term experiments. *Agricultural and Forest Meteorology*, 284, 107898. <https://doi.org/10.1016/j.agrformet.2019.107898>
360. Newton, R.J., Hay, F.R. and Ellis, R.H., 2020. Temporal patterns of seed germination in early spring-flowering temperate woodland geophytes are modified by warming. *Annals of Botany*, 125, 1013–1023. <https://doi.org/10.1093/aob/mcaa025>
361. Hanson, J. and Ellis, R.H., 2020. Progress and challenges in *ex situ* conservation of forage germplasm: grasses, herbaceous legumes and fodder trees. *Plants*, 9(4), 446. <https://doi.org/10.3390/plants9040446>
362. Zulu, D., Ellis, R.H. and Culham, A., 2020. Propagation of lusala (*Dioscorea hirtiflora*), a wild yam, for *in situ* and *ex situ* conservation and potential domestication. *Experimental Agriculture*, 56, 453–468. <https://doi.org/10.1017/S0014479720000083>
363. Addy, J.W.G., Ellis, R.H., Macdonald, A.J., Semenov, M.A. and Mead, A. 2021 The impact of weather and increased atmospheric CO₂ from 1892 to 2016 on simulated yields of UK wheat. *Journal of the Royal Society Interface*, 18, 20210250. <https://doi.org/10.1098/rsif.2021.0250>
364. Addy, J.W.G., Ellis, R.H., Macdonald, A.J., Semenov, M.A. and Mead, A. 2021. Changes in agricultural climate in South-Eastern England from 1892 to 2016 and differences in cereal and permanent grassland yield. *Agricultural and Forest Meteorology*, 308–309. 108560. <https://doi.org/10.1016/j.agrformet.2021.108560>

365. Biss, A.J. and Ellis, R.H., 2021. Modelling Chablis vintage quality in response to inter-annual variation in weather. *OENO One*, 55, 209–228. <https://doi.org/10.20870/oeno-one.2021.55.3.4709>
366. Hay, F.R., Whitehouse, K.J., Ellis, R.H., Sackville Hamilton, N.R., Lusty, C., Ndjioudjop, M.N., Tia, D., Wenzl, P., Santos, L.G., Yazbek, M., Azevedo, V.C.R., Peerzada, O.H., Abberton, M., Oyatomi, O., Guzman, F.d., Capilit, G., Muchugi, A. and Kinyanjui, Z., 2021. CGIAR genebank viability data reveal inconsistencies in seed collection management. *Global Food Security*, 30, 100557. <https://doi.org/10.1016/j.gfs.2021.100557>
367. Addy, J.W.G., Ellis, R.H., MacLaren, C., Macdonald, A.J., Semenov, M.A. and Mead, A., 2022. A heteroskedastic model of Park Grass spring hay yields in response to weather suggests continuing yield decline with climate change in future decades. *Journal of the Royal Society Interface*, 19, 20220361. <https://doi.org/10.1098/rsif.2022.0361>
368. Biss, A.J. and Ellis, R.H., 2022. Weather potential for high-quality still wine from Chardonnay viticulture in different regions of the UK with climate change. *OENO One*, 56, 201–220. <https://doi.org/10.20870/oeno-one.2022.56.4.5458>
369. Ellis, R.H., 2022. The J. Derek Bewley Career Lecture. Seeds-plants-crops-biodiversity-environment-people: illustrating understanding and ideas. *Seed Science Research* 32, 118–125. <https://doi.org/10.1017/S0960258521000295>
370. Ellis, R.H., 2022. Seed ageing, survival, and the improved seed viability equation; forty years on. *Seed Science and Technology*, 50, 1, Supplement, 1–20. <https://doi.org/10.15258/sst.2022.50.1.s.01>
371. Biss, A.J. and Ellis, R.H., 2023. Predicting Chardonnay still wine vintage quality. Vineyard, December, p. 10. https://issuu.com/kelseygroup/docs/vineyard_12dec23
372. Al Jabri, T.A.H., Culham, A and Ellis, R.H. (2024). Wild olive in Oman and its conservation: A review. *Journal of Agricultural and Marine Sciences*, 29, 1–14. <https://doi.org/10.53541/jams.vol29iss1pp1-14>
373. Biss, A.J. and Ellis, R.H., 2024. Minerality in wine: textual analysis of Chablis Premier Cru tasting notes. *Australian Journal of Grape and Wine Research*, vol. 2024, Article ID 4299446, 13 pages, 2024. <https://doi.org/10.1155/2024/4299446>
374. Biss, A.J. and Ellis, R.H., 2024. What is minerality and where does it come from? Vineyard, May, p. 35. <https://www.vineyardmagazine.co.uk/back-issues/may-2024/>
375. McClory, R., Ellis, R.H., Lukac, M., Clark, J., Mayoral, C., Hart, K.M., Plackett, A.R.G., and MacKenzie, R., 2024. Carbon dioxide enrichment affected flower numbers transiently and increased successful post-pollination development stably but without altering final acorn production in mature pedunculate oak (*Quercus robur* L.). *Journal of Forestry Research* 35, 73. <https://doi.org/10.1007/s11676-024-01724-8>
376. McClory, R., Ellis, R.H., Lukac, M., and Clark, J., 2024. Pollen source affects acorn production in pedunculate oak (*Quercus robur* L.). *Journal of Forestry Research* 35:124. <https://doi.org/10.1007/s11676-024-01777-9>

377. Al Jabri, T.A.H., Culham, A and Ellis, R.H., 2025. Scarification and germination of wild olive stones from Jabal Akhdar, Oman. *Acta Horticulturae* (in press)

Updated January 2025