

# Agriculture

## Section I: Introduction to agriculture

1. **Index of per capita food production** (Food and Agriculture Organization of the UN, <http://www.wri.org/wri/enved/>)
2. **Cereal yield per hectare** (Food and Agriculture Organization of the UN, <http://www.wri.org/wri/enved/>)
3. **International trade in food** (Food and Agriculture Organization of the UN, <http://www.who.int/fsf/mbriskassess/studycourse/>)
4. **Soil limits agriculture** (FAO *FactFile*, <http://www.fao.org/News/FACTFILE/IMG/FF9713-e.pdf>)
5. **Low-income food-deficit countries** (FAO *FactFile*, <http://www.fao.org/focus/e/SpeclPr/SPro14-e.htm>)
6. **Distribution of GDP by sector** (World Tables, World Bank, <http://www.igc.org/wri/enved/>)
7. **Areas of concern for soil degradation** (<http://www.wri.org/wri/enved/> 1990)
8. **Causes of soil degradation** (<http://www.wri.org/wri/enved/>)
9. **Cropland per capita** (Food and Agriculture Organization of the UN, <http://www.wri.org/wri/enved/>)
10. **FAOSTAT agriculture data** (<http://apps.fao.org/cgi-bin/nph-db.pl?subset=agriculture>)
11. **Food and agricultural production, 1984-96 (tables)** (WRI, *World Resources 1998-99*, p284, 1998)
12. **The World Food Situation Recent Developments, Emerging Issues, and Long-term Prospects** (Per Pinstrup-Andersen et al., International Food Policy Research Institute, Dec. 1997)
13. **Feeding the world** (WRI, *World Resources 1998-99*, p152, 1998)
14. **Intensification of agriculture** (WRI, *World Resources 1998-99*, <http://www.igc.org/wri/wr-98-99/002-agri.htm>)
15. **Feast and famine** (*The Economist*, Nov. 16, 1996)
16. **Loaves and fishes** (*The Economist*, Mar. 21, 1998)
17. **Constraints on the expansion of food supply** (Henry W. Kendall and David Pimentel, *Ambio*, v23 n3 p198, May 1994)
18. **Global and local implications of biotechnology and climate change for future food supplies** (Robert E. Evenson, *Proceedings of the National Academy of Sciences USA*, v96 n11 p5921-5928, May 25, 1999)
19. **Feeding nine billion** (Lester R. Brown, *State of the World 1999*)
20. **Soybean harvest down** (Lester R. Brown et al., *Vital Signs*, 1999)
21. **The hunger trap** (World Food Programme, 1998)
22. **The State of Food and Agriculture 1998** (FAO, <http://www.fao.org/docrep/w9500e/w9500e12.htm>)
23. **Global hunger: The methodologies underlying the official estimates** (Thomas T. Poleman, *Population and Environment*, v17 n6 p545-569, Jul. 1996)
24. **Extracts from the OECD Agriculture Outlook 1999-2004** (OECD, <http://www.oecd.org/agr/>, 1999)
25. **Feeding a world population of more than eight billion people: A challenge to science (review)** (Dennis R. Keeney, *Soil Science* v164 n2 p19, Feb. 1999)
26. **The nature of agricultural systems: Food security and environmental balance** (K.G. Cassman and R.R. Harwood, *Food Policy*, v20 n5 p49, 1995)
27. **Agricultural intensification and ecosystem properties** (P.A. Watson et al., *Science*, v277 n5325 p504)
28. **An ecoregional perspective on malnutrition** (Manohar Sharma et al., [http://www.ifpri.cgiar.org/2020/newslet/nv\\_0495/nv\\_0495d.htm](http://www.ifpri.cgiar.org/2020/newslet/nv_0495/nv_0495d.htm))
29. **Long-term agroecosystem experiments assessing agricultural sustainability and global change** (Paul E. Rasmussen et al., *Science*, v282 n5390 p893)
30. **Landscape structure and biological control in agroecosystems** (Carsten Theis and Teja Tscharntke, *Science*, v285 n5429 p893, Aug. 6, 1999)
31. **Ecological consequences of slash-and-burn agriculture in the tropical areas of China** (*Ambio*, v25 n3 p210, May 1996)
32. **Agriculture and environment: A review, 1972-1992** (*Ambio*, v23 n3 p192, May 1994)
33. **Global environmental impacts of agricultural expansion: The need for sustainable and efficient practices** (David Tilman, *Proceedings of the National Academy of Sciences USA*, v96 n11, May 25, 1999)
34. **Effects of slash and burn agriculture and deforestation on climate change** (*Agriculture, Ecosystems, and Environment*, v58 p13-22, 1996)
35. **Slash and burn agriculture – household perspectives** (*Agriculture, Ecosystems, and Environment*, v58 p23-38, 1996)

36. **Dynamics of soil physical properties under alternative systems to slash and burn** (*Agriculture, Ecosystems, and Environment*, v58 p39-48, 1996)
37. **Chemical dynamics in slash and burn agriculture** (*Agriculture, Ecosystems, and Environment*, v58 p49-60, 1996)
38. **Soil biological dynamics in slash and burn agriculture** (*Agriculture, Ecosystems, and Environment*, v58 p61-74, 1996)
39. **Development pathways toward sustainable systems following slash and burn** (*Agriculture, Ecosystems, and Environment*, v58 p75-86, 1996)
40. **Nutrient overload: Unbalancing the global nitrogen cycle** (WRI, *World Resources 1998-99*, p179, 1998)
41. **Human alteration of the global nitrogen cycle: Causes and consequences** (Ecological Society of America, *Issues in Ecology*, Spring 1997)
42. **Livestock and nutrient transfer** (*International Livestock Research Institute*, <http://www.cgiar.org/ILRI>)
43. **Site- and watershed-level assessment of nutrient dynamics under shifting cultivation in eastern Madagascar** (J. Brand and J.L. Pfund, *Agriculture, Ecosystems, and Environment*, v71 p169-183, 1998)
44. **Forests loss linked to soil degradation** (Nastasha Bitá and Perry Bronwen, *Geodate*, v9 n2 p8, May 1996)
45. **Forests in a global context** (*The State of Food and Agriculture*, 1997)
46. **Socioeconomic factors and tropical deforestation** (Kamaljit Bawa and S. Dayanandan, *Nature*, v386 n6625 p562-563, Apr. 10, 1997)
47. **Soil degradation** (Sara J. Scherr, *Food, Agriculture, and the Environment Discussion Paper 27*, International Food Policy Research Institute, Feb. 1999)
48. **Environmental and economic costs of soil erosion and conservation benefits** (David Pimentel et al., *Science*, v267 n5201 p1117-1123, Feb. 24, 1995)
49. **Soils in torment** (Sophie Bourkhari, *UNESCO Courier*, v52 n1 p10, Jan. 1999)
50. **The adoption of soil conservation technology in El Salvador: Linking productivity and conservation** (E. Gustavo Sain, and J. Hector Barreto, *Journal of Soil and Water Conservation*, v51 n4 p313, Jul./Aug. 1996)
51. **Soil degradation from wind erosion in semiarid region of China** (*Journal of Soil and Water Conservation*, v52 n2, 1998)
52. **Heavy metal pollution in soils in China: Status and countermeasures** (Chen Huamain et al., *Ambio*, v28 n2 p130, Mar. 1999)
53. **Livestock-environment interactions** (Henning Steinfeld et al., <http://www.fao.org/docrep/x5305e/x5305e00.htm>)
54. **Livestock to 2020: The next food revolution** (Christopher Delgado et al., *2020 Brief 61*, Jun. 1999)
55. **Livestock to 2020: The next food revolution** (Christopher Delgado et al., *Food, Agriculture, and the Environment Discussion Paper 28*, May 1999)
56. **Are you ready for a meat revolution** (*News and Views*, <http://www.cgiar.org/ifpri/>, Mar. 1999)
57. **Sacred cows, science and uncertainties** (David C.G. Skegg, *Nature*, v382 n6594 p755-756, Aug. 1996)
58. **Livestock and the environment: Finding a balance** (Cees de Haan et al.)
59. **Poultry, women and development: Old ideas, new applications and the need for more research** (J. Rushton and S.N. Ngongi, <http://www.fao.org/docrep/w9980t/w9980T07.htm>)

## Section II: Agriculture and human population

60. **Fact Sheet: Population and Food** (National Wildlife Federation)
61. **Food production, population growth, and the environment** (Gretchen Daily et al., *Science*, v281 n5381 p1291)
62. **Population growth and food production: Recent global and regional trends** (Tim Dyson, *Population and Development Review*, v20 n20, Jun. 1994)
63. **Population pressure and the food supply system in the developing world** (*Population and Development Review*, v22 n2, Sep. 1996)
64. **Toward 2020: Conclusions from a roundtable on food and population to 2010** (Nurul Islam, *2020 Vision Synthesis*, <http://www.cgiar.org/ifpri/>, Feb. 1995)
65. **Population reports** (v25 n4, Series M n13, Dec. 1997)
66. **Plants and population: Is there time?** (Nina V. Fedoroff and Joel E. Cohen, *Academy of National Science*, v96 n11 p5903-5907, May 25, 1999)
67. **Population, Food, and Nutrition** (William Bender and Margaret Smith, Feb. 1997)
68. **Variability and growth in grain yields, 1950-94: Does the record point to greater instability?** (Rosamond Taylor et al., *Population and Development Review*, v23 n1 p41-58, Mar. 1997)
69. **Population growth and agriculture in poor countries: A review of theoretical issues and empirical evidence** (Nadia Cuffaro, *World Development*, v25 n7 p1151-1163, 1997)
70. **How much food will we need in the 21st century?** (William H. Bender, *Environment*, v39 n2, Mar. 1997)
71. **How many people can the Earth feed?** (Vaclav Smil, *Population and Development Review*, v20 n2 p255-292, Jun. 1994)
72. **Keynote addresses food: Nature and culture** (Ismail Serageldin and Margaret Visser, *Social Research*, v66 n1 p103, Spring 1999)
73. **Conserving Land: Population and Sustainable Food Production** (Robert Engleman and Pamela LeRoy, 1995)
74. **Raising women's productivity in agriculture** (*The State of Food and Agriculture*, 1997)
75. **Women: The key to food security** (Agnes R. Quisumbing et al., *Food Policy Statement 21*, <http://www.cgiar.org/ifpri/>, Aug. 1995)
76. **World trends in fertilizer use and projections to 2020** (Balu L. Bumb and Carlos A. Baanante, *2020 Vision Brief 38*, <http://www.cgiar.org/ifpri/>, Oct. 1996)
77. **Global politics of pesticides** (Danielle Knight, *Americas*, v48 p55, Nov. /Dec. 1999)
78. **Clinical evaluation of pesticide exposure and poisonings** (Michael O'Malley, *The Lancet*, v349 n9059 p1161-1166, Apr. 19, 1997)

79. **Policies to promote environmentally sustainable fertilizer use and supply to 2020** (Balu L. Bumb and Carlos A. Baanante, *2020 Vision Brief 40*, <http://www.cgiar.org/ifpri/>, Oct. 1996)
80. **Pest management and food production looking to the future** (Montague Yudelman et al., <http://www.cgiar.org/ifpri/>, 1998)
81. **Trends in the types, amounts, and toxicity of pesticides used in Tanzania** (Avil J. Mmochi and R. Said Mberek, *Ambio*, v27 n8, Dec. 1998)
82. **A Review of Impacts to US Agricultural Resources** (Richard M. Adams et al., Feb. 1999)
83. **Water and sustainable development international conference** (Wulf Klohn and Hans W. Wolter, <http://www.fao.org/ag/AGL/AGLW/webpub/PARIS1.htm>, Mar. 1998)
84. **New Zealand: The impact of policy reforms on water quantity and quality issues** (MAF Policy, Ministry of Agriculture and Forestry, Wellington, <http://www.oecd.org/agr/publications/index1.htm>, 1998)
85. **Water for food production: Will there be enough in 2025?** (Sandra L. Postel, *BioScience*, v48 n8 p629, Aug. 1998)
86. **The right to food** (The World Food Summit and its Follow up, <http://www.fao.org/docrep/X2051e/X2051e00.htm>)
87. **The right to food, considered on the 50th anniversary of the Universal Declaration of Human Rights** (<http://www.worldhunger.org/articles/foodrights.htm>)
88. **Time to "green" US farm policy** (Katherine R. Smith, *Issues in Science and Technology*, v11 p71-78, Spring 1995)
89. **Perverse subsidies** (John Cairns Jr., *BioScience*, v49 p334-336, Apr. 1999)
90. **Shaping a smarter environmental policy for farming** (David E. Ervin, *Issues in Science and Technology*, p73-81, Summer 1998)
91. **EU faces battle on farm subsidies** (*Journal of Commerce*, Apr. 14, 1999)
92. **Political muscle (sidebar)** (Doug McInnis, *BEEF*, Jul. 1999)
93. **Back door subsidies for US farmers** (*Farming News*, Mar. 12, 1999)
94. **Agriculture, Trade and the Environment: Anticipating the Policy Challenges (excerpts only)** (David Ervin, OECD, 1997)
95. **Cuts urged in fishing and farm aid: Trade and environment. Washington urges WTO to be more responsive to ecological concerns** (Frances Williams, *Financial Times* [London], Mar. 16, 1999)
96. **Module 2: FAQs (1)** ([http://www.wto.org/english/thewto\\_e/whatis\\_e/eol/e/wto02/wto2\\_71.htm](http://www.wto.org/english/thewto_e/whatis_e/eol/e/wto02/wto2_71.htm))
97. **Implementation of the Uruguay round reform programme for trade in agriculture** (*Press Brief*, <http://www.wto.org/goods/agricult.htm>)
98. **Urbanization and agriculture to the year 2020** (*News and Views*, <http://www.cgiar.org/ifpri/>, Apr. 1996)
99. **Suburbia consumes California's fruit basket to the world** (Daniel B. Wood, *Christian Science Monitor*, v89 n201 p1, Sep. 11, 1997)
100. **Closing the nutrient loop** (Toni Nelson, *World Watch*, v9 p10-17, Nov./Dec. 1996)
101. **China's water shortage could shake world food security** (Lester R. Brown and Brian Halweil, *World Watch*, v11 n4 p10-21, Jul./Aug. 1998)
102. **Coexistence between people and elephants in African savannas** (Richard E. Hoare and Johan T. Dutoit, *Conservation Biology*, v13 n3 p633-639, Jun. 1999)
103. **Supporting women farmers in the green zones of Mozambique** (Ruth Ansah Ayisi, *SEEDS* n17, <http://www.popcouncil.org/publications/seeds/seeds17.html>)
- Section III: The future of agriculture**
104. **Plant biotechnology food and feed** (*Science*, v285 n5426 p289-484, Jul. 16, 1999)
105. **Sociopolitical effects of new biotechnologies in developing countries** (Klaus M. Leisinger, <http://www.ifpri.cgiar.org/2020/briefs/number35.htm>, Jul. 1996)
106. **Food for thought** (*The Economist*, Jun. 19, 1999)
107. **Mutants on the menu** (*France Bequette*, [http://www.unesco.org/courier/1998\\_09/uk/planete/txt1.htm](http://www.unesco.org/courier/1998_09/uk/planete/txt1.htm))
108. **Technological opportunities for sustaining wheat productivity growth toward 2020** (Prabhu L. Pingali and Sanjaya Rajatam, *2020 Vision Brief 51*, Jul. 1998)
109. **Food for all** (Debbie Mack, *New Scientist*, Oct. 31, 1998)
110. **What is sustainable agriculture?** (Gail Feenstra, <http://www.sarep.ucdavis.edu/concept.htm>, Dec. 29, 1998)
111. **The greening of the green revolution** (David Tilman, *Nature*, v396 n6708 p211-212, Nov. 19, 1998)
112. **Chapter 14: Sustainable agriculture and rural development** (*Progress Report FAO*, Agenda 21/14:SARD, <http://www.fao.org/ag/magazine/0103sp3.htm>, Jun. 1997)
113. **Evaluating the Potential Contribution of Organic Agriculture to Sustainability Goals** (FAO, 1998)
114. **Linking Biodiversity and Agriculture: Challenges and Opportunities for Food Security** (WRI, 1997)
115. **Saving nature's legacy through better farming** (Dennis T. Avery, *Issues in Science and Technology*, v14 p59-64, Fall 1997)
116. **The potential of agroecology to combat hunger in the developing world** (Miguel A. Altieri et al., *2020 Vision Brief 55*, Oct. 1998)
117. **Heifer-in-Trust: A Model for Sustainable Livestock Development?** (K.A. Afifi Affat)
118. **Biomass, livestock, people and the environment** (Andre Speedy, FAO Animal Production and Health Division)
119. **Austria: Organic farming** (The Federal Ministry of Agriculture and Forestry, Vienna, *Helsinki Seminar on Environment Benefits from Agriculture Country Case Studies*, OECD, p37, <http://www.oecd.org/agr/publications/index1.htm>, 1997)
120. **Rejuvenating agricultural extension through partnership** (*South Asia Brief*)
121. **Growing more food, doing less damage** (Mark W. Rosegrant and Robert Livernash, *Environment*, v38 p6-11, Sep. 1996)
122. **Growing more food, doing less** (Lester Brown and Robert S. Chen, *Environment*, v39 p34-38, Mar. 1997)