Participants at the Conference in January 2004
at the Wye Campus of Imperial College London

Simon Anderson, Imperial College London
David Andow, University of Minnesota (US)
Deryke Belshaw, University of East Anglia and Oxford Centre for Mission Studies (UK)
Lawrence Busch, Michigan State University
Luis Camacho, University of Costa Rica (Costa Rica)
Andrew Dorward, Imperial College London
Nigel Dower, University of Aberdeen
Steve Esquith, Michigan State University
Michiel Korthals, Wageningen University (NL)
Jonathan Kydd, Imperial College London
Michael Lipton, University of Sussex (UK)
John Mason, member of local rural community (UK)
Jamie Morrison, Imperial College London
Clare Palmer, Furness College Lancaster University
Rodrigo Paz, Imperial College London/Bolivia Student
John Perkins, The Evergreen State College
Colin Poulton, Imperial College London
Peter Sandoe, University of Copenhagen
Allan Schmid, Michigan State University
Clive Stannard, FAO Rome
Paul Thompson, Michigan State University
Jeff Waage, Imperial College London
Lowell Woodcock, University of Sussex
Bibliography


BBC Radio 4, 4 December 2003, Costing the Earth


Benjamin M (1990) Splitting the difference: compromise and integrity in ethics and politics. University Press of Kansas, Lawrence, KS

Boserup E (1966) The conditions of agricultural growth; the economics of agrarian change under population pressure. Aldine, Chicago, IL
Brambell FWR (chairman) (1965) Report of the Technical Committee to enquire into the welfare of animals kept under intensive livestock husbandry systems. Her Majesty’s Stationery Office, London
Dawkins MS (1990) From an animal’s point of view: motivation, fitness, and animal welfare. Behavioural and Brain Sciences 13: 1–9, 54–61


Food Ethics Council (2001) Farming animals for food: towards a moral menu. FEC, Southwell, UK


Goulet D (1965) Etica del desarrollo. Estela/IEPAL, Barcelona, Montevideo


Kant I (1785) Was heisst Aufklärung.


Marx K (1906) Capital, a critique of political economy: the process of capitalist production. Translated from the third German edition by S. Moore and E. Aveling; edited by F. Engels; revised and amplified according to the fourth German edition by E. Untermann. Modern Library, New York
Robinett J (1994) This rough magic: technology in Latin American fiction. Peter Lang, New York, pp 3–5, 268
Roling N (2000) Gateway to the global garden: beta/gamma science for dealing with ecological rationality. Eighth Annual Hopper Lecture, University of Guelph, Canada
Roussel JS, Clower D (1955) Resistance to the chlorinated hydrocarbon insecticides in the boll weevil (Anthonomus grandis Boh.). Louisiana Experiment Station Circular No. 41, Louisiana State University and Agricultural and Mechanical College, September 1955
Taylor GB (1972) One man’s philosophy of welfare. Veterinary Record 91: 426–428


Thoreau HD (1854 [1995 edn]) Walden, or, life in the woods. Dover, New York


Vandermeer J (2003) Agricultural scientists are wrong about agriculture and conservation scientists are wrong about conservation. Endangered Species Update 20: 53


Index

A
Aesthetics, 143–44, 151, 164–65
Agrarianism, 154, 163, 171, 190, 201
Agreement on Trade and Related Aspects of Intellectual Property (TRIPS), 127–29
Agricultural production:
  Industrialization of, 125, 170–71, 178, 201
  Technology, 104, 106–07
Agriculture (see also Animal production; Biotechnology; Factory farms; Subsidies):
  Development of, 53–54, 92, 94
  & Politics, 52
  & Society, 32–33, 92, 106, 177
Agroecology. See Integrated Pest Management.
Alar, 80
Amado, Jorge, 109
Amish, 33–35
Animal breeding, 138–40, 162, 188, 193–94
Animal care values, 170, 174, 176–80, 186, 202
Animal Place, 178
Animal production (See also Confinement systems; Factory farms; Slaughter industry):
  Consolidation of, 174–76, 181–84
  Disease, 27, 36, 52, 149, 169, 194, 207
  Professionalism, 188, 202
  Reform, 187–88, 191, 195, 197
  Standards, 21, 32, 188
Animal rights, 134
Animal Rights, 178
Animal welfare, 137–140, 151, 161–63, 167–190
Antibiotics, use of, 88
Aristotle, 32, 177
Australia, 153

B
Bailey, Liberty Hyde, 72
Balfour, Lady Eve, 79
Basic Rights, 37, 122
Berlin, Isaiah, 112
Betterment, 199
Beyer, Peter, 77–78
Biffen, Rowland, 72
Biocentric impartiality, 134
Biodiversity, 57, 135, 141–42, 147, 150, 153, 163–64
Biological control. See Integrated pest management
Biotechnology, 47, 50, 87, 125, 127–28, 150, 162–63, 175, 202. See also Chemical resistance; GMOs
Bogaard, A., 62
Borlaug, Norman, 73–74
Bovine spongiform encephalopathy (BSE), 27; see also Animal production
Britain, 52, 72, 75, 143, 153, 154
Broom, Donald, 173
Buchanan, Allen, 121

C
CAFOs: See Confinement systems
Canada, 174–175, 179, 188
Carson, Rachel, 68
Chemical resistance, 67, 71; see also Integrated pest management
Chemicals. See Alar; Herbicides; Pesticides
Chile, 153
China, 20, 115
Cleaver, H.M., 126
Coats, D.C., 178
Cochrane, William, 82
Communist Manifesto, 103
Communitarianism, 32
Community, 33–35, 38–39, 44, 46, 87, 94
Complicity, 119
Concentration
   Animal production, 27, 176
   Food industry, 153–54
   Economic power, 46–47
Confinement systems, 151, 168, 170, 172,
   175–76, 178–80
Consequentialism, 117–119; see also
   Efficiency
Consolidation. See Animal production
Cooperative Extension Service, 65
Corn Laws, 72
Corporate ownership, 88, 125, 153, 178–79,
   184, 187,
Credit, 85–86, 126
Crocker, David A., 108, 109
Curtin, Deane, 125, 127

D
Datta, Swapan, 77
Dawkins, Marian, 173
DDT, 66–68, 89. See also Pesticides
Denmark, 169
Deontology, 27–28, 93, 118, 132–33, 145,
   161, 163–64
Development. See Agricultural development
   Diet for a New America, 178, 180
Discourse ethics, 11, 24, 55, 115, 117
Diseases, 27; 36, 88, 122, 125. See also
   Animal production
Distribution:
   of justice, 35–37, 90, 145, 208, 211
   of food & shelter, 83, 91, 118, 160,
   208, 211
Distributive justice: See Distribution
Dolan, Edward, 178
Duncan, Ian, 173
Duty-oriented ethics: 132–34, 139;
   see also Deontology

E
Earth Charter, 134–35
Economic development, 52, 115
Ecosystems, 135–36, 138, 142–43, 150,
   165–66
Efficiency, 26, 61, 90, 193–94; see also
   Consequentialism
Egziabher, Tewolde, 128
Eide, Asbjorn, 122
Enclosure Acts, 21, 25
Endangered species, 88, 137, 147
Enlightenment, 171
Epizootics, 27
Ethical Issues in Fisheries (FAO), 51
Ethical Issues in Food and Agriculture
   (FAO), 49
Ethics:
   and power, 82, 98, 139
   for development, 97–110, 112, 114
Ethics and Globalisation of Food and
   Agriculture (FAO), 50
Ethics of Sustainable Agricultural
   Intensification, The (FAO), 50
Ethiopia, 126
European Union, 75, 188
Extensification of agriculture, 137, 151, 164

F
Factory farms, 170–71, 178
Family farming, 147, 177–79, 192
FAO:
   Panel of Eminent Experts on Ethics in
      Food and Agriculture, 44–49
   Programme on Ethics in Food &
      Agriculture, 44
   Publications (Ethics Series), 49–51
Farmers’ rights, 47
Fisheries, 51
Food:
   battle, 93, 95
   choice, 93–95
   quality, 96
   security, 128; see also Distribution
   style, 92–93
Forestry, 39
France, 66, 153
Freeman, David, 106
Free trade, 197; see also NAFTA

G
García Marquez, Gabriel, 109
Gene Utilisation Restriction Technologies
   (GURTS), 47
Genetic diversity, 27, 54
Genetic modification (see also GMOs),
   27, 30, 54
   of crops, 30, 123–24, 140
   of animals, 151, 202
Genetically modified organisms (GMOs)
   (see also Golden Rice), 48, 50, 55,
   78–79, 93, 159
Germplasm, 29–30, 128
Index

Global Environmental Change and Human Security Project (GECHS), 100
Global Public Goods in Food and Agriculture (FAO), 50–51
Golden rice, 77–78, 127–28
Goodpaster, Kenneth, 134
Goonatilake, Susantha, 123–24
Goulet, Denis, 108
Governmental policies, 38, 95, 97–98, 103, 105, 107–108; see also Subsidies
Greece, 32
Green Revolution, 26, 30, 38, 73–79, 123

H
Haechel, Ernst, 70
Hanson, Victor Davis, 32
Harrison, Ruth, 168
Hatch Act, 65
Haughley Experiment, the, 79
Held, David, 112
Herbicides, 67, 89; see also “Terminator” seeds
Hobbes, Thomas, 28
Howard, Albert, 73–74, 79, 91
Human development. See Agricultural development
Human Rights Watch, 126
Human rights, 122, 126; see also Distribution
Humane Farming Association, 178
Hunger, 49, 95, 122–123
Hybridization, 54, 95, 125, 127–28; see also Animal breeding; Plant breeding
Hydraulic technology, 63
Hydroelectric power, 34

I
Identity, 33, 36, 92–93, 115–17
Inclusion, 115–16, 204
India, 73, 74, 126
Indigenous
Agriculture, 34, 123–24
Biota, 88
Foods, 123–24
Seeds, 30, 127, 159; see also Seeds
Industrialization of agriculture, 125, 170–71, 178, 201
Industrial Revolution, 21, 103, 170–71
Inge, Thomas, 177
Insecticides. See Pesticides
Integrated pest management (IPM), 69–71, 81, 83
Interdependence, 45, 90

International Development Ethics Association (IDEA), 101
International Program on Rice Biotechnology, 77–78
International Union for the Protection of New Varieties of Plants (UPOV), 46–47
Intrinsic value, 132–36, 139, 142, 144–47, 164
Instrumental value, 132–33
Italy, 152

J
Japan, 113
Jefferson, Thomas, 32
Justice: See Distributive justice; John Rawls

K
Kant, Immanuel, 27–29, 93
Kenya, 126, 153
Kiley-Worthington, Marthe, 173
Knowing systems, 200, 203
Kolkman, J., 180

L
Labeling requirements, 48, 124
Land Ethic, 136
Latin America, 97, 102, 104
Leopold, Aldo, 136, 143
Lindgren, Astrid, 168
Linnaeus (von Linné), Carl, 69
Lipton, Michael, 30
Locke, John, 25–26, 28
Longhurst, Richard, 30

M
Mad cow disease. See Bovine spongiform encephalopathy
Marcus, Erik, 178
Marx, Karl, 52, 103
McGlone, John, 173
Meatrix, The, 178
Mendel, Gregor, 72
Merchant, Carolyn, 64
Mexico, 73
Migrant workers, 87
Mill, John Stuart, 94
Misdistribution, 91, 95
Misrepresentation, 93–95
Moberg, Gary, 173
Monocultures, 46, 107, 125, 150
Morrill Acts, 65
Multinationals, 125–28, 137, 153, 194,
N
NAFTA (North American Free Trade Agreement), 97
Natural law theory, 28
Neo-liberalism, 101, 203
Netherlands, 153, 169, 192
New York Times, 113
Norway, 179
Nuffield Council of Bioethics, 123–24, 125, 127

O
Old MacDonald’s Factory Farm, 178
Organic
Farming, 79–81; 149
Foods, 79–80

P
Pastoralism, 171, 176–77, 190, 201
Patents, 104, 127–28, 159; see also Biodiversity
Penman, Danny, 178
Pesticides, 65–71, 80–81, 89, 125–26; see also Chemical resistance; IPM
Plant breeding, 72, 81
Plant Breeding Institute, 72, 75
Pluralism, 96, 136; 145–46
Point IV Program, 73
Poland, 87
Pollard, Sydney, 171–72
Population growth, 19, 56, 63, 186
Positivism, 4, 7
Potrykus, Ingo, 77–78
Price of Meat, The, 178
Prions, 27
Productivity, 19–20, 38, 67, 82, 98, 171–72, 180
Professionalism. See Animal production
Profits, 126, 178, 181–84
Progress, 62, 64–65, 89, 103, 108, 171–72, 210
Property rights (See also Biotechnology; Patents; TRIPS):
  Intellectual, 47, 50, 113, 117
  & Seeds, 12, 86

R
Rational/industrial world-view, 171–72, 185
Rawls, John, 37, 112
Readings in Food and Agriculture (FAO), 51
Regan, Tom, 134
Representation, 93–95
Responsibility, 38–41, 88, 90, 203
  Collective, 112–13, 118–19
  Resurgence. See Chemical resistance
  Rice, 20, 26; 74, 77–79, 126; see also Golden rice
  Rights-based ethics, 27; see also Deontology
  Robbins, John, 178, 180
  Robinett, Jane, 108
  Rockefeller Foundation, 73, 76–78
  Rollin, Bernard, 168
  Rolston, Holmes, 135, 142–43
  Romantic/Agrarian world-view, 171–72, 185
  Rome, 20
  Rosenau, James N., 113
  Rosset, Peter, 125
  Rostow, W.W., 103
  Royal Agricultural Society of England, 64–65
  Russell, Edmund, 66

S
Sábat’s Triangle, 101
Sainsbury, David, 169
Schultz, Theodore, 126
Schweitzer, Albert, 134
Seeds, 29–30, 54, 86, 159; see also Hybridization; Indigenous agriculture; Patents; “Terminator” seeds
Selective breeding. See Animal breeding; Plant breeding
Sentience, 133–34, 136, 161–63
Shastri, Lal Bahadur, 74
Shiva, Vandana, 126
Shue, Henry, 37, 122
Silent Spring, 68
Singer, Peter, 38, 168, 180
Slaughter industry, 87, 181, 197; see also Animal production
Smith, Adam, 171
Social structure, 32–33
Soil health, 79, 87, 126
Soviet Union, 179
Specialization, 21, 39, 87, 171
Standard Critique, 178–79, 186, 188, 194–95
Standards, food industry, 154, 187–88, 197
Subsidies, farming, 86, 97, 113, 126, 138, 180, 197
Suicide and farmers, 52
Supply and demand, 152–54
Sustainability
  Agriculture, 50, 55, 83, 147, 149, 158–61, 166
  Development, 48, 147, 158, 166
Systemic value, 135
Systemics, 199, 202–204, 207–211

T
Taylor, Paul, 134
Technology, and ethics, 114; see also
Biotechnology
“Terminator” seeds, 104
Third Party Certification (TPC), 155
Thompson, Paul, 131, 177
TRIPS (Trade-related Aspects of Intellectual
Property Rights), 47, 159
Truman, Harry S., 73
Tudge, Colin, 62

U
UN Declaration of Human Rights, 122
Underdevelopment, 98
Union for the Protection of New Varieties
of Plants (UPOV), 46–47
United Kingdom. See Britain
United Nations Development Programme
(UNDP), 99
United States, 113, 153, 179, 182–184
Universal Declaration of Human Rights,
37, 45
Utilitarianism, 26, 37, 90, 94, 164
Cost-benefit, 37, 62, 139, 206
Utility, 61, 90, 119

V
Van der Ploeg, Jan Douwe, 152
Vegan: the New Ethics of Eating, 178
Vietnam, 20
Virtue ethics
Moral character, 11, 32, 118

W
Wallace, Henry A., 95
Water use and hydroelectric power, 34
Welch, Rose M., 121, 122
Wheat, 53, 60, 62, 71–75
World Food Summit, 38, 40
Plan of Action, 56
World Organization for Animal Health, 188, 197
Worster, Donald, 69
WTO (World Trade Organization), 127–29, 153

Z
Zambia, 153