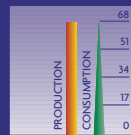
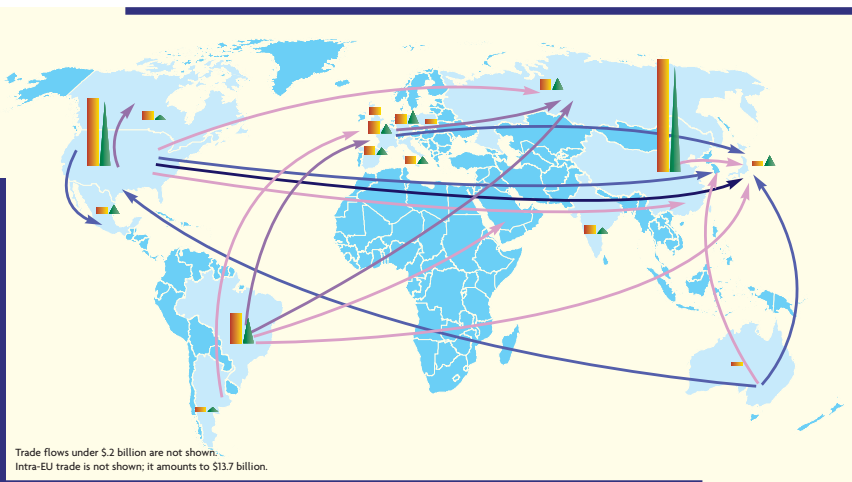
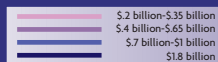


Million metric tons, situation in 2003.



Trade flows of meat in value, 2002.



Production, consumption and trade of meat.

The United Nations SITC (revision 2) defines meat as meat and edible meat offal, fresh, chilled or frozen SITC code 011.

Meat, which here includes only the most widely consumed meats (pork, poultry and beef), is produced in every country. In 2002, total consumption of meat was divided between pork (45%), poultry (23%), beef (20%) and other meats (8%). During the last 20 years, food safety has become an important issue for the meat trade, owing mainly to outbreaks of animal disease. The Food and Agriculture Organization estimates that current trade bans on meat are affecting one third of global exports.

### Industrial meat production

Beef comes from two origins. Calves born to “suckler cows” are raised for their meat during three years or less. Calves born to milking cows produce milk for five to six years and are then slaughtered for their meat. Since 2001, animals in the European Union have been fed an exclusively pasture- or cereal-based diet. Animal proteins, such as meat-and-bone meal, have been banned in all meat production, and imported meat must also comply with this ban.

Poultry meat comes essentially from broilers (young chicken) and turkeys. The birds are grown in an environment that is fully controlled with respect to length of daylight, food, water, antibiotics and vaccines, and they are sent to slaughter after five to seven weeks.

Pork production occurs mainly in facilities where the pigs are housed from breeding to fattening and slaughter. The herd per farm can vary from 600 to 12,000 head. The environment is totally controlled. Pigs are slaughtered after a minimum of 175 days.

### Consumption trends

The richest countries are the main meat consumers, with the exception of Japan, with its preference for seafood, and Argentina, a developing country where the diet is traditionally oriented towards meat products. Despite sanitary problems, world meat consumption is still increasing because of rising incomes. However, there is a trend away from beef to poultry and, to a lesser extent, pork. Causes include health-related dietary concerns in rich countries and economic growth in developing countries, which has increased demand for cheap protein-rich foods such as poultry.

### Labels and organic production

Consumer concerns about animal welfare, the environment, pollution and meat quality have driven meat production to less intensive practices and to the development of labels and “organic” meat. Labels must reflect product specificities such as regional location, particular production practices and breed characteristics. Organic labelling refers only to production practices that must follow strict rules monitored by an independent certification body. Organic production is located in developed countries, and the main markets are the United States and the European Union. The past decade has seen substantial growth in organic markets; nevertheless, their share of total food sales is still a mere 1% to 3%.



Housing of pigs, cows and chickens.

### Diseases

Each country is responsible for declaring any disease affecting its livestock to the World Organisation for Animal Health (OIE). Recent severe outbreaks include bovine spongiform encephalopathy (BSE, or “mad cow disease”), which was first reported in 1989 in Western Europe. New cases were identified in Canada and the United States in 2004. The last major outbreak of classical swine fever (CSF), which affects the pork industry, was in 1997–98 in Western Europe. Foot-and-mouth disease (FMD) affects sheep, goats, cows and pigs; the last major outbreak began in 1997. The latest serious threat, Avian influenza, concerns poultry production in North America and 10 Asian countries. For each disease, the OIE publishes the list of contaminated countries, disease-free countries and countries returning to disease-free status through either eradication or vaccination.

Costs of recent animal disease outbreaks (US\$ million)

Disease	BSE in United Kingdom 1996/97	FMD in Taiwan Province of China, 1997	CSF in Netherlands, 1997/98
Direct costs	2 433	254	1,321
Indirect costs	1 395	6,363	1,019
Impact on GDP	-0.4%	-0.64%	-0.75%

Source: FAO

### Food safety and sanitary and phytosanitary measures

Concerns over food safety, animal diseases, the environment and animal welfare, as well as changes in consumer preferences, have led to increasingly stringent regulations in importing countries. Approaches include traceability and packaging requirements and use of the Hazard Analysis and Critical Control Point (HACCP) method. The World Trade Organization (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures allows each country to establish its own regulations provided these are justified by safety concerns. However, such regulations may become real barriers to trade, especially for developing countries that cannot support the costs of compliance. Moreover, the SPS Agreement can be used as a protectionist instrument.

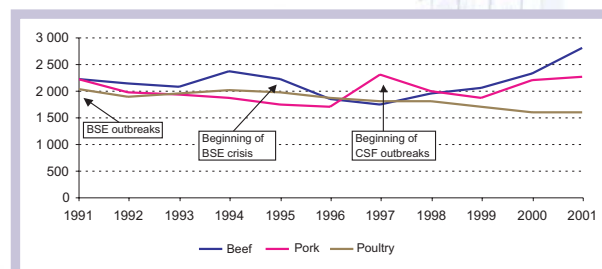
### Hormone-grown beef

Countries exporting hormone-grown beef include Argentina, Australia, Canada, Mexico, New Zealand, the United States and Uruguay. In 1988, the European Union banned the use of hormones in animals and applied the ban to livestock and meat imports. With the creation of the WTO in 1995 and the SPS Agreement, the United States and Canada in 1996 embarked on a dispute settlement procedure, the first one within the framework of sanitary and phytosanitary measures. The WTO panel ruling permitted the United States and Canada to apply countervailing duties on European products, but, since EU veterinary services have meanwhile found evidence of the carcinogenic activity of some growth hormones, the ban is still in force.

### Subsidies

The trend towards diminishing government intervention in livestock and meat markets, which began after the Uruguay Round Agreement on Agriculture, has been interrupted in developed countries and transitional economies since prices in the sector have remained low (owing partly to outbreaks of animal diseases). While the nature of the support has changed from price supports to more direct payments, new specific supports have been disbursed to compensate farmers confronting diseases and low prices, to strengthen veterinary control, and to prevent new outbreaks.

Meat producer prices in Australia, 1991–2001 (Australian \$/metric ton of live animal)



Source: Data from FAO

To learn more

*Intergovernmental Group on Meat and Dairy Products*  
[www.fao.org](http://www.fao.org)