Camels

Producers of the desert

The large camels (dromedaries and Bactrian camels) are probably the domestic species with the widest range of different functions. Not only do they provide milk, meat and wool (high quality in the case of Bactrian camels), they also provide energy to transport people and goods and for agricultural activities and are used for leisure purposes, be it racing or rides at tourist sites.

Original, popular products

Milk: while consumption is marginal (less than 1% of the milk consumed worldwide), camel’s milk plays an original role. It is reputed to have a whole range of therapeutic properties, associated to varying degrees with its composition: it is hypoallergenic (it does not contain beta-lactoglobulin, which causes allergies); it has a hypoglycemiant effect of use to diabetics; it is exceptionally rich in vitamin C and contains highly bioactive lactoferrin, hence acts against harmful bacteria; its lactose is easier to digest; and it is rich in unsaturated fatty acids and minerals.

Local consumption is booming, with demand outstripping supply, as urban consumers appreciate its beneficial effects on health. Production systems are becoming increasingly modern, from promotion of traditional extensive systems to intensive industrial production. Cheese production remains difficult, although recent technological advances have improved its potential.

Meat: camel meat production is low due to the length of the animal’s reproductive cycle, but the quality of the meat from animals less than four years old is similar to that of beef, with various dietetic advantages (less cholesterol). The supply chain is largely regionalized, with significant trade flows from Africa to the Near East. Processing is restricted to importing countries (Egypt, Libya, Gulf States, Saudi Arabia), but is a commercial asset for African farmers.

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The research that is under way (Sudan, Oman, Saudi Arabia, Tunisia) is aimed at responding better to consumer demand and market opportunities. There are highly efficient pastoral fattening systems, and enclosed fattening installations are being tested (for instance in Tunisia) with a view to producing quality meat.

Wool: camel's wool is traded on the international market. Although the market primarily concerns wool from alpacas and other small Andean camelids, Bactrian camel's wool is also used industrially, for instance in Mongolia, where mills offer luxury goods distributors Bactrian "cashmere". Dromedary's wool is less popular, but is often sufficient for local demand and is sold to tourists.

Transport, draught and agriculture

Despite the end of trans-Saharan camel trains, dromedaries are still used to carry non-perishable goods in zones that are inaccessible to vehicles (there are still salt caravans) and camp equipment during large-scale transhumance (in Chad, they can travel several hundred kilometres). They are used to draw water during the dry season or to drive norias. Draught is practised extensively in India, in Rajasthan, and is also observed in Sahelian countries, where dromedaries tend to be used more than donkeys, because of their strength. Camels are also used to transport cereal crops to farmers’ houses (chele in Chad). These complementarities are a guarantee of social harmony in countries where conflict between crop and animal farmers may occur.

The main issues

For research, the development of large camelids encompasses four major issues:

- **the future of nomadic pastoral societies** in the face of climate change and economic globalization, which means making camel products a market commodity;
- **food security** in countries largely made up of desert, which want to maintain a rural population in the most marginal zones while using some areas solely for livestock farming (excluding oases);
- **global warming**, which has resulted in the rapid extension of the area in which dromedaries are reared, particularly in Africa, in countries that overlooked the species until less than 20 years ago (Nigeria, Cameroon, Central African Republic, Uganda, Tanzania); camel rearing has spread right up to the fringes of agricultural areas through a switch in species (from cattle to cameldids), including among pastoral communities previously centred on cattle farming (Fula, Maasai);
- **emerging diseases**, a phenomenon linked to the above trends, given that the spread of camel rearing towards the less arid zones of Sahelo-Sudanian Africa brings the animals into contact with a potentially pathogenic environment that differs from the entirely desert zones used previously.