

THE ROLE OF DRAUGHT AND PACK ANIMALS IN THE 21ST CENTURY

INTRODUCTION

Lord Soulsby

Animals in society now present a complex relationship with human needs. In some cases they are pivotal in the production of food and fibre for human use, in some cases they compete for the same food as man for the production of amino acid and energy rich meat or they serve a companionship or sports role.

The role of animals in the global scene took on added importance with the Declaration of Alma-Ata when on 12 September 1978 the 'WHO-UNICEF' International Conference on Primary Health Care, declared the target of 'Health for all by the year 2000'. The Declaration includes the statement 'Primary health care involves, in addition to the health sector, all related sectors and aspects of national and community development, in particular agriculture, animal husbandry, food industry, education, housing, public works, communications and other sectors; and demands the co-ordinated efforts of all these sectors'.

Food production is a central point of economic and social development in any country, but particularly so in the tropics where many countries are classified as having emerging and developing economies. Livestock play an important role in this production providing protein that is high in essential amino acids, and also providing fibre and draught power, the topic of this meeting on draught and pack animals. The importance of draught power has been appreciated only recently now the role of animals, such as buffalo, camel, horses, mules and asses, yak and elephant is better understood in tropical cultures. I do not know whether there have been any detailed analyses recently of the energy contributions of draught animals but some 20 years ago draught animals provided 85% of total world energy inputs in agriculture, but with developing countries this figure may have exceeded 90% (Pritchard, 1979).

I strongly suspect the figures are still high. If one consults the Animal Health Yearbook of FAO-OIE-WHO over the three years 1993-1995, there is a slight increase in, for example, buffaloes from 147 million to 150 million, camels, mules and asses have stayed the same (58 million for mules and asses and 19 million for camels) while horses have declined slightly (61 million to 58 million). Of course a proportion of the typically draught animals are also concerned with food production (eg milk and meat).

The water buffalo (*Bubalis bubalis*), as an example, has served mankind as a draught animal for more than 4000 years. Estimates in 1981 were that at least 130 million water buffalo existed, this being one ninth of the world population of cattle, and the population had grown by 11% between 1961 and 1981. The water buffalo is a multipurpose animal and, apart from draught power, supplies milk and meat while it is easily maintained on small farms with limited areas for grazing, being able to digest coarser plant fibres than cattle.

The problems associated with the massive mechanisation of Third World agriculture of a few decades ago are well known. Tractors lie idle for want of spares and the useful life of a sophisticated machine of the western world is short under tropical conditions, let alone the cost of fossil fuels to run that machine. The useful life of draught buffalo is 25-30 years. Hence, it is no bad thing for the small or peasant farmer to have an animal that serves a multipurpose role.

The buffalo is widely believed to be vicious and mean, but in fact the domesticated water buffalo is one of the gentlest of creatures and children regard it as the companion animal of the family. However, a particular point about the buffalo and about the livestock of the small, peasant farmer of the Third World is that his animals represent his total realisable wealth. Should illness befall these animals then disaster may be the result. It is here that the health of the animals is crucial to the welfare of man and beast.

Recent surveys of global health indicate an increasing problem of disease due to infectious agents and the lack of adequate medicines such as antimicrobial drugs as well as the lack of an adequate diet. Poverty resulting from disease and the associated sapping of will power for productive work mean that huge areas of the world do not possess the means to acquire modern agricultural equipment or the purchase of the fossil fuels to run them. In such circumstances I believe the draught animal will, for several decades to come, play an important role in food production. An essential component in the use of animals for draught power is that they must be healthy to perform their work. Just as for humans, an animal suffering from disease with consequent ill-health, is sapped of its ability to provide the energy required to cultivate crops and transport their products to market.

I look forward with interest to the day's proceedings to learn whether other participants share my view that the draught animal has an important role to play in the provision of food and in the service to agriculture for many years to come.

Reference

Pritchard, N.R. (1979) The role of animals in providing for mans nutritional needs. In *Animal diseases prevention in developing countries: its relationship to health, nutrition and development*. Pan American Health Organisation Scientific Publication, p380. Pan American Health Organisation, Washington, DC.