

February 1, 2019. A Positive Story for Livestock Grazing?

The global debate on red meat consumption and grazing livestock production and the impact on the earth and our environment continues.... here is another point of view.

A New FAO Study indicates that livestock primarily consume foods not fit for human consumption and meat production requires less cereals than generally reported

In 2050, the world will count 9.6 billion people, 70% living in cities with an average income almost twice as high as today. As a result, global demand for animal products will continue to grow and play a critical role in global food security and nutrition. But livestock use a large share of agricultural land and are often considered a resource drain. Particularly criticized is the low efficiency of livestock to convert feed into human edible protein and the competition for the use of cereals as livestock feed or for direct human food.

A new study by FAO and published in *Global Food Security* found that livestock rely primarily on forages, crop residues and by-products that are not edible to humans and that certain production systems contribute directly to global food security, as they produce more highly valuable nutrients for humans, such as proteins, than they consume.

"I came to realize that people are continually exposed to incorrect information about livestock and the environment that is repeated without being challenged, in particular about livestock feed," says Anne Mottet, Livestock Development Officer at FAO. "There is currently no official and complete international database on what livestock eat. This study contributes to fill this gap and to provide peer-reviewed evidence to better inform policy makers and the public."

Animal food sources make a vital contribution to global nutrition and are an excellent source of macro- and micronutrients. Livestock products make up 18% of global calories, 34% of global protein consumption and provides essential micro-nutrients, such as vitamin B12, iron and calcium. Livestock use large areas of pastures where nothing else could be produced. Animals also add to agricultural production through manure production and drought power. Further, keeping livestock provides a secure source of income for over 500 million poor people in many in rural areas.

This study determines that 86% of livestock feed is not suitable for human consumption. If not consumed by livestock, crop residues and by-products could quickly become an environmental burden as the human population grows and consumes more and more processed food. Animals also consume food that could potentially be eaten by people.

Grains account for 13% of the global livestock dry matter intake. Some previous studies, often cited, put the consumption of grain needed to raise 1 kg of beef between 6 kg and 20 kg. Contrary to these high estimates, this study found that an average of only 3 kg of cereals are needed to produce 1 kg of meat at global level. It also shows important differences between production systems and species. For example, because they rely on grazing and forages, cattle need only 0.6 kg of protein from edible feed to produce 1 kg of protein in milk and meat, which is of higher nutritional quality. Cattle thus contribute directly to global food security.

The study also investigates the type of land used to produce livestock feed. **Results show that out of the 2.5 billion ha needed, 77% are grasslands, with a large share of pastures that could not be converted to croplands and could therefore only be used for grazing animals.** Livestock production is growing fast because demand for animal products is rising, particularly in developing countries. FAO estimates that we need 70% more animal products by 2050 to feed the world. Therefore, the area of land needed to raise animals will also increase if feed conversion ratios (FCR) are not further improved.

Steps have already been taken through feed formulation, genetic selection, and better veterinary services to improve FCRs over the last 30 years. An improved (more efficient) feed conversion will also reduce livestock's environmental footprint, but continued progress is needed to make the system more sustainable. In addition, it is essential to improve the recycling of food wastes and by-products into livestock feed as well as to increase feed crops yields.

"Animal production, in its many forms, plays an integral role in the food system, making use of marginal lands, turning co-products into edible goods, contributing to crop productivity and turning edible crops into highly nutritious, protein-rich food. Quantifying the land and biomass resources engaged in livestock production and the food output they generate, but also improving our modelling capacity by including trends in consumer preferences, shifts in animal species, climate change impacts, and industrial processes to improve the human edibility of certain feed materials is arguably basic information needed as part of further research into the challenge of sustainably feeding 9.6 billion people by 2050," concluded the authors.

http://www.fao.org/ag/aqainfo/home/en/news_archive/2017_More_Fuel_for_the_Food_Feed.html

The FOA is the Food and Agriculture Organisation of the United Nations.