

The Implications of Changing Global Animal Protein Demand for Australian Farmers

The last 30 years of the 20th century was a period of substantial growth in global agriculture and food output – both in aggregate terms and on a per capita basis. Whereas at the start of the 1970s vast numbers of the world’s human population (including large numbers in China and India) were considered to be malnourished and food security was considered to be a major challenge, by the start of the 21st century groups such as the UN’s Food and Agriculture Organisation (FAO) were predicting further falls in real food prices as global production outstrips global population growth.

Together with the significant increase in global food production has come increasing wealth for many people in what have traditionally been considered ‘developing’ countries. This disposable income has brought increasing demands for a greater diversity of foodstuffs and, in particular, a move away from cereal and plant-based food products to increased consumption of animal-based food, such as poultry, pigmeat, aquaculture and dairy products.

These developments have significant implications for Australian farmers for a number of reasons. Firstly, the growth in demand for animal protein and more diverse diets in countries such as China has, in combination with urban expansion and environmental challenges, led to: a reduction in the area devoted to cereal production; growth in animal protein production; and growth in the area utilised to produce horticulture and vegetable products. The slowdown in demand for cereals has also resulted in countries such as China occasionally becoming net exporters of cereals over the past five years, but is anticipated to result in China becoming a consistent net importer of grains in future – especially in grains used as feed for livestock.

Secondly, demand for a greater diversity of foodstuffs by relatively wealthy consumers in developing nations is one of the factors that appear to have led to generally stronger prices for oilseeds, dairy and livestock products in recent years. The extent to which these stronger prices are likely to persist in the longer-term is uncertain, and is dependent upon whether farmers in the countries in question decide to increase livestock production, increase feed grain production, or both.

Further significant increases in the importance of livestock products in world food supplies are a notable feature of FAO projections. Recent FAO analysis highlights that over the last four decades of the 20th century, per capita meat consumption in developing countries rose by 150% (from a low base), and per capita consumption of milk and dairy products increased by 60%. The FAO projects that per capita consumption of livestock products could grow by a further 44% by 2030, with the fastest growth being in poultry consumption. Developing countries are expected to experience a growing deficit in livestock production, which will need to be met by developed country exports.

The biggest increase in livestock production is likely to come from ‘industrialised’ intensive livestock enterprises, with production from these enterprises growing, according to the FAO, at more than double the rate of growth of production from the more traditional mixed farming enterprises over recent years, and six times the growth rate observed for grazing enterprises.

Coincidental to these developments have been the growing global interest in biofuels, and the growth in biofuel production that has been spurred on by the recent increases in oil prices. The likely future trajectory of biofuel production, and the related impact that has on demand for different types of plant crops is also likely to be a major factor in future demand shifts for agricultural products in coming decades.

These developments raise a number of challenging issues for agriculture in Australia. The first is that increasingly, the longer-term outlook seems to suggest a relative strengthening in returns for livestock enterprises in comparison with cereal production. The second is that the demand for animal protein (especially as China and India develop) is less likely to be for traditional broadacre meat products such as beef and sheepmeats, and more likely to be for products such as poultry, pork and aquaculture, in which Australian agriculture is not considered to have a comparative advantage. A third issue is the future potential demand for feedgrains – both within developing countries and also within Australia – as both intensive livestock production systems and biofuel production seem likely to grow in relative significance.

These are long-term strategic issues that also have policy implications in relation to issues such as the adoption of genetically-modified grains in Australia; agricultural research and development; transport and logistics needs in regional Australia; and landuse and water management. A good understanding of these developments is of considerable importance to Australian agriculture.

Project Objectives

1. To analyse available data and projections concerning the future global demand for and supply of animal proteins, especially in relation to changing per capita wealth in developing nations, with the aim of producing a comprehensive report on likely future trends.
2. To consider the likely implications of changing global diets and biofuel industry development for Australian agriculture – specifically the broadacre, intensive livestock and the feedgrain sectors.
3. To analyse potential policy implications for Australian agriculture arising from these changes, specifically in areas such as research and development.

Scope

The research outlined here is intended to be a relatively small-scale ‘desk study’, as it is recognised that a number of international agencies and authorities have already published comprehensive reports on this topic.

From an Australian perspective, the question of interest is the likely changes in demand for agricultural products that will arise as these changes occur, and the strategic policy steps that Australian agriculture should take in order to prepare for these changes. For example, one conclusion may be that there has been insufficient effort and research directed towards the breeding of varieties of feedgrains compared to grains utilised for human consumption.

The scope of the research will necessarily be global, in recognition of the fact that changes in demand for certain agricultural products in one country or region will invariably result in a response by many different countries, all potentially resulting in flow-on implications for Australian farmers.

It is likely that the focus of the research will initially be on the developing Asian countries such as China, India, Malaysia, Thailand, Vietnam, Laos and Cambodia, as well as developing agricultural exporters such as Brazil, Argentina, Chile, Ecuador, and emerging agricultural exporting nations in eastern Europe.

Sources to be utilised in compiling the report will include UN, FAO, United States Department of Agriculture, International Food Policy Research Institute and other similar data sources.

Further Information

Questions or requests for further information should be directed to Mick Keogh on (02) 9690 1388.