farm institute insights

Australian Farm Institute's quarterly newsletter

Australian Farm Institute

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Supermarkets in China: Fierce competition brings change

The early euphoria over the advent of a modern food retail sector in the relatively untapped China food market is bumping up against the reality of fierce competition.

Multinationals are prominent, but the market is still dominated by hundreds of small local chains and traditional 'wet markets' populated by small vendors.

Retail stores have modernised rapidly, giving consumers a wider selection of food products; a convenient, comfortable shopping environment; and, increasingly, low prices. However, developments in supply chains have been slower and, with a few exceptions, food imports have had only marginal success reaching Chinese shoppers.

The outcome of the battle for the China market is uncertain, but it has implications for retailers, as well as for exporters and farmers who want to reach Chinese shoppers.

In this article, Fred Gale and Dinghuan Hu look at what has been happening on the ground in China. They provide a snapshot of the supermarket sector, drawing upon recent case studies and industry reports to assess the current situation in food supply chains.

They also consider factors driving retail developments; the effect of market development on Chinese consumers; and prospects for exporters seeking a share of the China market.

INSTITUTE ACTIVITIES

Australian Farm Institute

2007 Agriculture Roundtable Conference

The Institute's annual Conference will be held in Melbourne on 8–9 November. The Conference is an invitation only, media-free event attended by agribusiness and farm leaders, researchers and policy-makers. This year, the format of the Conference allows delegates more time to engage in discussion on key strategic issues including: climate change and emissions trading; water management policy; agriculture's workforce.

For details, please contact Cate Stewart on 02 9690 1388 or stewartc@farminstitute.org.au

Out and about

Recently the Institute's Executive Director, Mick Keogh, has spoken at:

- a Marcus Oldham College Corporate Managers' Workshop
- a Department of Agriculture, Fisheries and Forestry (DAFF) Departmental Workshop and National 'Pathways to Industry EMS' Project Workshop
- the AGM of the Tractor and Machinery Association of Australia
- the National Food Industry Strategy's 'Learn to value-add' 2007 Workshop
- the Dairy 2007 National Conference
- the Queensland Farmers' Federation's Enhancing Sustainable Agriculture Forum.

In the news

Mick Keogh has contributed to the debate on water management in comment on ABC Radio and in letters to *The Australian* and *The Australian Financial Review*.

On Monday 5 March, the Institute's latest Research Report, *Productivity Growth in Australian Agriculture: Trends, Sources, Performance*, was launched in Canberra by the Hon. Sussan Ley, MP, Parliamentary Secretary for Agriculture, Fisheries and Forestry.

Media coverage of the Report included an article in the Business section of *The Age* entitled 'Warning on waning agricultural research'.

See the Institute Research and Events page to find out more about the Report.

Institute director appointed to head sheep CRC

The Institute congratulates Dr John Keniry on his recent appointment as chairman of the board of the Cooperative Research Centre (CRC) for Sheep Industry Innovation. Dr Keniry, who was also chairman of WoolPoll 2006, said: 'As a woolgrower myself, I'm delighted at the opportunity to get close to the cutting edge of where the industry is going'.

Call for papers

The August 2007 edition of the *Farm Policy Journal* focuses on water management policy.

If you are interested in submitting a paper, please contact Karen Romano on 02 9690 1388 or romanok@farminstitute.org.au

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Supermarkets in China

Fred Gale, US Department of Agriculture, Economic Research Service
Dinghuan Hu, Chinese Academy of Agricultural Sciences

A handful of multinational food retailers are competing with dozens of Chinese retail chains for a slice of one of the world's largest food markets.

China's modern retail sector – comprising grocery stores, hypermarkets, warehouse clubs and convenience stores – has been growing by double-digit figures annually since the 1990s. Dozens of companies are opening stores and making acquisitions. Others are quitting the market, being bought out or going bankrupt (Bean 2006; Li 2006).

China's retail battleground

Many of the major retail players from Europe, the United States (US) and Asia are positioning themselves for the long haul in what they see as a key market in their global strategy. Wal-Mart's US$1 billion acquisition of the Taiwanese-owned Trust-Mart chain of about 100 mainland stores, following a bidding war with competitors, is an indicator of the high stakes involved.

While multinational retailers get most of the attention, they have not monopolised the Chinese market. According to China National Bureau of Statistics chain store statistics, there are about 500 supermarket and convenience store chains, of which 58 are 'foreign-invested'. Calculations based on China's Economic Census indicate that foreign-invested units accounted for 12% of food, beverage and tobacco sales in 2004. The leading food retailers as of 2006 are shown in Table 1.

Multinationals tend to be dominant in the hypermarket category. Domestic retailers have large networks of smaller supermarkets and convenience stores – they account for over 90% of outlets and include a mix of publicly and privately owned companies. Many are looking for foreign partners to provide management know-how and the resources to expand nationally. Two of the biggest domestic supermarket chains, Lianhua and Shanghai Hualian, have merged in an apparent effort to create a domestic chain with the size to compete with the multinationals.

In contrast to many other countries, where policy-makers are sceptical of large retail chains, economic planners in China have encouraged the supermarket boom. Many domestic

Table 1: Leading food retailers in China: 2006

Company	Ownership/ Headquarters	Stores (no.)	Sales (¥ billion)[a]
Domestic Companies:			
Lianhua	State-owned, Shanghia	3,913	44.0
Wumart	Private, Beijing	728	23.1
Suguo	State-owned[b], Nanjing	1,612	22.3
Beijing Hualian	State-owned,Beijing	76	21.2
Nonggongshang	State-owned,Shanghai	1,857	19.6
Shanghai Hualian	State-owned, Shanghai	1,955	15.0
Xinyijia (A. Best)	Private, Beijing	99	14.3
Jingkelong	Private, Beijing	171	6.1
Kedi	State-owned, Shanghai	1,171	2.4
Zhejiang Renti (C&U Supermarket)	Private, Zhejiang	226	1.9
Beijing Chaoshifa	Private, Beijing	51	1.7
Multinational Companies:			
China Resources Vanguard	Hong Kong	2,250	37.9
Carrefour	France	95	24.8
RT-Mart	Taiwan	68	19.6
Wal-Mart	United States	71	15.0
Trust-Mart	Taiwan	101	14.0
Lotus	Thailand	75	13.5
Metro	Germany	33	9.4
Tesco	United Kingdom	47	9.3
Auchan	France	16	6.2
Parksons	Malaysia	38	6.2
Park'n'Shop	Hong Kong	44	4.7

[a] Sales include food and non-food items.
[b] Joint venture with China Resources Vanguard.
Source: China Chain Store & Franchise Association 2007

retail chains have close ties to city governments and preferential access to real estate and bank loans. The Chinese Government plans to push the retail boom into rural areas. It has launched an ambitious '10,000 village, 1,000 township' program to develop a vast network of rural chain stores.

Consumers benefit from retail growth

'Supermarketisation' has been beneficial for Chinese consumers who are increasingly looking for quality, nutrition, safety and other attributes in the food they eat as they gain more discretionary income.

One of the authors recently visited the southwestern province of Sichuan – one of the outlying areas that are the site of fierce competition between multinational and domestic retail chains (Hu 2007). Multinational chains Carrefour, Auchon, Wal-Mart and Metro, as well as state-owned Beijing Lianhua, have all entered this market. Typically, prices at modern retailers are slightly higher than those in wet markets, but several managers interviewed in Chengdu, the capital city of Sichuan, said they try to match or undercut prices of wet market vendors (Hu 2007). The number of customers and vendors in a Chengdu wet market has fallen off sharply since a Carrefour supermarket opened nearby. Small pork vendors say their gross margin has gone down from about 10% before the supermarket arrived on the scene, to about 4% now. The gross margin at a nearby supermarket is only slightly higher, at 6%.

The rise of modern food retailing has been aided by elevated concerns about food safety in recent years. Supermarkets tend to carry more premium-priced products of higher quality, such as the sale of premium-priced 'green food' vegetables grown with restricted chemical use in areas certified to be free of soil, water and air contamination (Hu 2006). Until a few years ago, organic vegetable production in China was almost entirely for export, but organic food is now common in Chinese supermarkets. The Carrefour chain is developing a 'quality line' of premium fruits, vegetables, and pork that is grown under contract on farms that meet the chain's standard (Hu & Xia 2006).

Are supermarkets improving market access for imports?

There appears to have been only modest progress for food imports. A 2006 US Department of Agriculture (USDA) report on China's food retail sector estimates that imports constitute less than 5% of sales and no more than 1% of food items in Chinese supermarkets (Bean 2006; Li 2006).

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The major obstacle to most food imports is price. In 2006, the US Department of Agriculture (USDA) held a food promotion program in Chinese Wal-Marts (Liu 2007). In sponsors' comments, several noted that their products sold poorly because prices were higher than domestic products. Many imports cost 4–5 times as much as domestic products. While China's tariffs on foods are low compared with those of many other countries, imports tend to be more expensive. Local processing costs are extremely low and supply of both farm products and processed foods tends to be highly price-elastic, with thin margins and heated price competition.

Helping create new demands

Retail sector development is partly a response to rising consumer incomes and changing tastes. But there is also some speculation that retail sector development itself may bring about changes in consumer tastes by expanding product offerings and changing the way people shop (Reardon et al. 2007).

Arguably, supermarkets have had an indirect impact on imports by boosting sales of new products that, while manufactured in China, use imported bulk agricultural products as ingredients. For example, China's booming imports of soybeans may be tied to supermarket growth. Until recently, consumers generally used oil produced from whatever oilseed was grown locally and soybean oil consumption was accordingly restricted mainly to the northeastern region. However, as China lowered tariffs on imported soybeans in the 1990s and allowed foreign investment in oilseed-crushing, soybean oil increased in popularity. 'Salad oil' that mixes other oils with soybean oil crushed in China, mostly from imported soybeans, has become a popular product all over the country.

Supermarkets and convenience stores have also been instrumental in boosting sales of milk, yogurt, ice cream and other dairy products. Most of China's milk is supplied domestically, but imports have grown rapidly as well.

Meanwhile, the fastest growing segment of corn use is industrial production of starches used in a variety of food products – a trend that may lead to China's long-anticipated emergence as a corn importer.

Supply chains evolve slowly

Fragmented supply chains are often cited as a potential barrier to food imports (Bean 2006). In the 2006 Wal-Mart food promotion, some sponsors noted that supermarkets did not have direct control over their suppliers and could only carry a product if their supplier could or would procure it. Distributors and retailers view imported products as risky,

because customers may not be familiar with imported foods and their prices are usually high (Bean 2006; Li 2006).

Procurement systems and supply chains have evolved at a slower rate than retail operations, and supermarkets in China are experimenting with a variety of methods. Only a few chains have established their own distribution centres (Hu 2006; Goldman & Vanhonacker 2006). Most rely on independent suppliers and cannot justify tying up cash and other resources in operating their own distribution centre. Retailers frequently contract out their fresh produce, meat or seafood counters to independent merchants.

Thus far, there has been little consolidation in agricultural product supply chains.

While the small scale and fragmentation of suppliers makes it more difficult to navigate the supply chain, products that are in demand do find their way to Chinese consumers. Imported fruits – apples, pears, plums, bananas and other tropical fruits – are commonly available in wholesale markets because there is a steady demand for them. Even small fruit stands sell imported fruit (Bean 2006). However, the limiting factor, again, is price. For example, prices for a number of imported fruits posted on the web site of the Xinfadi wholesale market in Beijing are at least 2–3 times higher than prices for domestic fruit.

Thus far, there has been little consolidation in agricultural product supply chains. China still has vast numbers of small traders and farmers dealing in a single truckload of vegetables or a handful of hogs. There are examples of greater vertical integration and control, but they are few in number.

A Chinese Academy of Agricultural Sciences (CCAP) study investigated vegetable supply chains in Shandong Province and found that nearly all growers were small, independent farmers (Huang et al. 2006). The study found only a few instances of producers growing under contract. Goldman and Vanhonacker (2006) report that some hypermarkets abandoned experiments with contracting production.

Nevertheless, small producers are adjusting to the demands of final consumers. The CCAP study concluded that the vast increase in vegetable production had come about as a result of small farmers taking up vegetable production in response to market demand. Similarly, small hog producers in Zizhong county have no formal relationship with supermarkets, but they have adjusted their feed rations to produce the leaner pork demanded by urban consumers (Hu 2007).

What does the future hold?

Retailers will continue jockeying for position in China's food retail sector for years to come. How modern Chinese retailing will adapt to China's fragmented supply chains is still an open question. As intense competition continues, will narrow profit margins push out small retailers? Will domestic chains pick up management know-how and remain entrenched through their connections and knowledge of local markets? Will multinational chains be able to achieve a dominant position?

It is difficult to make general statements or predictions about China's food sector given that China is a big country with vast internal differences in economic development, culture and tastes, and that it has a wide variety of retail outlets, supply chains and marketing strategies. The authors anticipate that this diversity will persist in the future, but there will be a general trend toward more sophisticated distribution systems; consolidation; modernisation of the farm sector; and greater integration with the global economy.

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Balancing the debate on vegetation clearing

Until recently, regular statistics have been released on native vegetation clearing rates, but there has been no information available on rates of vegetation re-growth – an imbalance that has often been highlighted in Australian Farm Institute publications.

The issue of native vegetation management remains a vexed one for many Australian farmers because of the nature of state regulations.

The regulations have been framed by policy-makers believing they need to lock up what is left of an ever-diminishing area of farmland that is still undeveloped and retains its 'original' vegetation. Accordingly, the success of native vegetation regulatory efforts has been measured by the reduction in the area of native vegetation clearing occurring each year.

A number of state governments regularly publish reports detailing the extent of clearing. Environmental groups needing to sustain annual donation levels convert the figures into 'football field equivalents' and then arrange the usual horror headlines, ably assisted by unquestioning environmental reporters.

A key problem with this approach, as has been pointed out by authors contributing to Institute publications, is that the area of native vegetation on farms in Australia is by no means static and, depending on seasonal and other conditions, can naturally expand quite quickly. Reinforcing this, it is apparent from the journals of explorers and other historical records that some major areas of native vegetation, such as the Pillaga forest in central New South Wales (NSW), simply did not exist a hundred years ago and were certainly not part of the pre-European landscape.

In many regions, native vegetation has progressively regenerated on areas of farmland. Even within areas already classified as native vegetation (woodlands with over 20% crown cover and over two metres in height), progressive thickening occurs, effectively increasing the extent of cover. In addition, farmers have actively replanted or regenerated substantial areas of native vegetation over the past decade, especially since rabbits were largely removed as a major pest in the 1990s.

In NSW in 2006, about 4,000 ha of native vegetation was approved for clearing, while about 1 million ha was rehabilitated or permanently conserved.

Up until recently, state government statistics on land clearing completely ignored this positive side of the native vegetation ledger and only reported areas of clearing. This is still the case in Queensland, where the annual *Statewide Landcover and Trees Study* (SLATS) reports use satellite images to record areas of clearing where woody native vegetation was previously identified. Areas of woody vegetation regrowth or replanting are not included in these reports.

The NSW Government, however, has recently commenced compiling and publishing reports that include data on areas of replanted native vegetation and areas protected via a range of different conservation measures.

The most recent report – *NSW Native Vegetation Report Card 2006* – highlights just how unbalanced previous debates on native vegetation clearing have been. It identifies that during the 2006 calendar year, approval was granted for just 3,650 hectares (ha) of native vegetation clearing in NSW.

On the other side of the ledger, some 130,742 ha of native vegetation was placed under permanent conservation arrangements – 80,000 ha of which was via permanent voluntary conservation agreements with private landholders. In addition, 770,000 ha was included in areas that were revegetated, converted to forestry plantations, or were subject to revegetation or habitat restoration agreements. In sum, about 4,000 ha of native vegetation was approved for clearing, while about 1 million ha was rehabilitated or permanently conserved.

Moreover, even these statistics on native vegetation restoration are still a significant understatement, because they do not include areas where natural regrowth has occurred.

There has been little or no mention of this data in the media, and there have certainly been no words of praise from environmental groups. The lack of response from the media is perhaps not surprising, given the old adage that bad news sells. The lack of positive response from environmental groups is surprising – but perhaps it is related to the fact that it will now get a whole lot harder to get those much needed donations.

A summary of some Australian and international farm policy developments

Brazilian ag boom continues, but challenges emerge

Brazil has emerged as the global agricultural superpower of the 2000s, becoming the world's biggest exporter of sugar, ethanol, coffee, orange juice, tobacco, beef and poultry, and being ranked in the world's top four exporters of soybeans, soymeal, corn and pork. Over the period 2000–05, Brazil's export growth rates for these 11 commodities averaged almost 30% per year.

According to a recent US Department of Agriculture (USDA) review, much of this export growth has arisen as a result of soaring Chinese demand, and Brazil now has a A$34.4 billion agriculture and food trade surplus – the largest of any nation in the world. The potential for further growth is also enormous – the USDA estimates that Brazilian agriculture currently utilises only one-third of its arable land.

However, the USDA report highlights some emerging challenges faced by the sector. An appreciating currency and increasing interest rates have made Brazilian exports 30% more expensive over the last two years. Agricultural finance is becoming more limited due to both high debt levels and higher interest rates, with commercial finance interest rates now exceeding 15%, and non-performing farm loans estimated at almost A$9 billion. Finance limits are slowing rates of agricultural land expansion, and transport and logistics bottlenecks are becoming a chronic problem.

For detailed analysis of Brazilian agriculture, see the Australian Farm Institute's Research Report – *Agricultural Development in Argentina and Brazil*.

Tesco to become a 'green' grocer

Sir Terry Leahy, Chief Executive of the United Kingdom's largest supermarket chain, Tesco, has pledged to revolutionise its business to become a leader in helping to create a low-carbon economy, according to a recent report in *The Guardian* newspaper.

Tesco plans to put new labels on every one of its 70,000 products so that shoppers can compare carbon costs. But before implementing the new labelling, it will develop a universally accepted and commonly understood carbon measuring system. To that end, Tesco is setting up a 'Sustainable Consumption Institute' at Oxford University, at a cost of A$12 million. In the interim, Tesco plans to label all food imported by air with an aeroplane symbol, in recognition of growing consumer noise about food miles.

The move by Tesco is the most significant of recent changes announced by a number of retailers, including Wal-Mart and Marks & Spencer, to improve their 'green' credentials.

Analysts writing in *The Independent* newspaper have suggested that the strategies are driven by a desire to head off potentially more draconian measures by governments, while at the same time capturing a greater share of the spending of wealthy consumers who have a growing awareness of environmental issues.

The short-term implications for agricultural exports from nations such as Australia are difficult to judge, but in the longer term a product's carbon footprint seems likely to be of growing importance to its consumer appeal.

NFF supports greenhouse emissions trading

In a submission to the Prime Ministerial Task Group on Emissions Trading, the National Farmers' Federation (NFF) has supported the implementation of a national greenhouse emissions trading scheme as the preferred option to reduce Australia's greenhouse gas emissions.

The NFF submission also supported the implementation of a national scheme in advance of agreement on a global scheme, arguing that placing a price on carbon is the most cost-effective way to reduce emissions and to avoid problems that invariably arise when governments try to pick winning technologies, rather than letting markets determine them. The NFF cautioned, however, that a national scheme would need to ensure that export-dependent sectors such as agriculture were not disadvantaged relative to their non-OECD counterparts.

The NFF proposed that farmers would not be direct participants in the scheme, but should be able to sell offset credits to scheme participants. It also proposed that a 'baseline and credit' scheme should be established to pay farmers for implementing practices that result in non-permanent emission abatement or sequestration.

A key element of the NFF submission was the call for governments to recognise the role agriculture has already played in limiting national emissions. The annual reduction in net agricultural emissions achieved over the past decade would be worth over A$500 million per annum, if tradable.

The Prime Ministerial Task Group will report its findings on 31 May.

NZ calculates Kyoto liability

While debate continues about the relevance of Australia ratifying the Kyoto Protocol on greenhouse emissions, the New Zealand (NZ) Government has been calculating the size of its potential liability as a consequence of failing to meet its target under the Protocol, which it ratified in 2002.

NZ's target is to maintain national greenhouse gas emissions at 100% of 1990 levels over the first 'commitment period' of 2008–12. However, based on the most recent NZ greenhouse emissions inventory report released in 2006, NZ greenhouse emissions are already at approximately 120% of 1990 emission levels.

The NZ Treasury's February 2007 estimate of NZ's liability to purchase greenhouse credits to offset excess national emissions was A$506 million, based on a carbon price of A$12.06 per tonne of CO_2e.

NZ greenhouse policies are of particular importance for its agricultural sector as agricultural emissions make up approximately 50% of NZ's total emissions. The Federated Farmers of New Zealand has often been critical of the NZ Government's greenhouse policies, and recently raised concerns that the Government is rushing too fast to meet its climate change obligations under the Protocol.

Many of the nations that have ratified the Protocol will not meet their targets. The European Union is set to exceed its target by 8%, Canada by 36%, and Japan by 14%. Despite non-ratification of the Protocol, Australia looks positively virtuous in being likely to exceed its target by around only 2%.

NZ Government confiscates carbon credits

A debate over carbon credits ownership is currently being waged between the NZ Government and forestry owners and investors. The Kyoto Forestry Association (KFA) recently reported that Northland in NZ could lose at least A$650 million from the Government's decision to nationalise Kyoto carbon credits legitimately owned by forest owners and forestry investors.

Since the Government first indicated that it intended to confiscate the carbon credits, tree planting in NZ has plunged and the country is now experiencing deforestation for the first time in living memory, according to a spokesperson from the KFA.

The KFA is now lobbying the NZ Government to endorse a plan that would see forest owners being paid for the carbon their growing trees remove from the atmosphere and utimately stimulate forest planting again.

Future wheat marketing arrangements still uncertain

An announcement on future wheat export marketing arrangements is expected at the end of April.

In January, the Government appointed a Wheat Export Marketing Consultation Committee chaired by Australian Farm Institute Chairman John Ralph. The Committee reported back to the Government in late March.

Farm groups have urged the Government to make a decision as soon as practicable. The Chairman of the NSW Farmers' Association Grain Committee, John Ridley, has warned that the lack of certainty has had a serious impact on the management decisions of grains industry participants and could result in negative outcomes for grain growers.

Mininster for Trade Warren Truss has suggested that a major overhaul of marketing arrangements should wait, while short-term arrangements for the marketing of this year's crop is put into place.

Water reform debate continues

While the Queensland, New South Wales (NSW) and South Australian (SA) Governments have all agreed to hand over control of water management in the Murray-Darling Basin to the Australian Government, the Victorian Government remains reluctant to cede its water powers.

The main stumbling block appears to be the Victorian Government's view that any transfer of control will mean less secure and reliable water access for Victorian irrigators. Concerns about the future security of water entitlements have been increased by recent NSW Government actions in confiscating water from NSW irrigators, and also by demands from the SA Premier for an increased allocation of water from the Murray River to SA.

Even in states where the transfer of water control to the Federal Government has been supported, there are growing calls for more details about proposed water reforms. Irrigators are concerned that existing water management plans may be re-opened for negotiation or simply be discarded.

There is also concern about the role that the CSIRO is to play in determining sustainable water yields for major waterways. The CSIRO is no longer perceived as objective by many irrigators, given the recent propensity of some of its scientists to actively campaign on behalf of environmental lobby groups.

The CSIRO recently sought clarification of its role, highlighting that the definition of 'sustainable water yield' requires full consideration of social, environmental and economic issues, something which is beyond the scope of its terms of reference in relation to the national water reform agenda.

The debate around water reform is also starting to focus on the key question, namely: 'what is the ultimate objective?'. Beyond some vague references to improving the health of rivers, there is as yet no clear expression of exactly what the reforms aim to achieve, leading to growing concern that the objectives may have a large political component.

Organics logo supported by European Parliament

Sales of organic goods are growing by 30% per annum in the European Union (EU). With further expansion in production forecast, members of the European Parliament are supporting the recommendations of a French Green MP's report (*Organic production and labelling of organic products*) that calls for a dedicated EU agency or governing body to be established to independently certify organic products.

The report recommends the establishment of a European logo for foods containing 95% organic ingredients, and calls for closer inspection of foods and products to determine their origin. It also argues for organic food to be completely free of genetically modified organisms (GMO), whereas currently 0.9% of the product can be of GMO origin.

In June, EU Agriculture Ministers will consider further a proposed regulation in relation to organic production and food labelling.

US farmland values soar

A United States (US) publication, *Successful Farming Magazine*, reports that biofuel 'euphoria' has pushed the value of top Iowa farmland to more than A$7,500 per acre – a 16.5% increase in the past year.

According to a survey compiled by Iowa real estate agents, the main forces driving land prices higher are the recent boom in commodity prices and the construction of new ethanol plants and biodiesel plants.

US Farm Bill reforms don't go far enough

United States (US) Agriculture Secretary Mike Johanns' recently announced the 2007 Farm Bill proposals, which will replace the current US Farm Bill when it expires in September.

The 2007 Farm Bill still has to go through Congress and is likely to be modified by the new Democrat majority in the House, who are unlikely to make the big subsidy cuts necessary to make an impact on world trade.

According to Australian Trade Minister, Warren Truss, the proposals do not go as far as the Federal Government would like:

> 'There are aspects of the proposal that are not helpful for Australia. For example, the proposal to extend the dairy assessment tax to products imported into the US is an unwelcome development. Australian dairy exports to the US do not benefit from the promotion activities funded by this tax'.

However, Mr Truss did concede that the 2007 Farm Bill proposals appeared to be Doha-friendly, with the potential to reduce trade-distorting subsidies.

UK farmers explain 'Why farming matters'

The United Kingdom's National Farmers' Union (NFU) has launched a major initiative to highlight the contribution of farming to Britain. The campaign is based on the NFU's *Why farming matters* report, which documents the economic, social and environmental significance of Britain's farm sector. In launching the report, NFU President Peter Kendall said:

> 'For far too long, the importance of farming to Britain has at best been taken for granted and, at worst, been written off as irrelevant.
>
> We believe that for all sorts of reasons, ranging from the security of our food supplies, the quality of our environment and rural economy and the battle against climate change, this is a dangerous notion that needs to be challenged. However, this campaign is not about what farming needs from the country, so much as what farming can do for the country'.

Mr Kendall stressed the NFU's report was not 'an extended begging letter for government intervention in the marketplace'. He said:

> 'What we do expect the Government to do is to avoid over-regulation, see fair play in the food chain, safeguard our international competitiveness and take, as their starting point, that it is in the national interest to help farming not to hurt it'.

Joint foot-and-mouth policy in South America

The Bolivian News Agency reports that Agriculture Ministers from six South American nations have agreed on a joint policy for improved cooperation in eliminating foot-and-mouth disease in the region. Together, the six nations (Argentina, Bolivia, Brazil, Chile, Paraguay and Uruguay) produce 28% of the world's beef, and Brazil is expected to be the world leader in beef exports in 2007, both in terms of revenue and volume.

Canadian Government supports ag policy institute

The Canadian Agri-Food Policy Research Institute (CAPI) recently received A$16 million in support from Canada's new government.

The Institute is a not-for-profit organisation that was established in February 2004 to serve as an independent voice on agri-food policy issues. It aims to operate at arm's length from government to provide a neutral venue for input into agricultural policy-making.

The $16 million will allow CAPI to withdraw up to $1 million a year, plus interest income, through to 2022 to cover eligible expenses for undertaking policy research and promoting policy dialogue.

Productivity Growth in Australian Agriculture: Trends, Sources, Performance

In March 2007, the Australian Farm Institute released a research report that examined rates of productivity growth in Australian agriculture and compared them with productivity growth rates in other sectors of the Australian economy and those achieved by farmers internationally.

The report, *Productivity Growth in Australian Agriculture: Trends, Sources, Performance*, was commissioned by the Australian Farm Institute and jointly funded by the Rural Industries Research and Development Corporation; the Grains Research and Development Corporation; and Meat and Livestock Australia.

The research found that in comparison with other sectors of the Australian economy, agriculture achieved the highest rates of productivity growth of any sector for the five years to 1999, and was second only to the communications sector in productivity growth rates during the 1990s.

Average agricultural productivity growth during the 1990s was 3.5% per annum (pa) – more than 2.5 times the national average.

Australian agricultural productivity growth was also found to be very impressive in comparison with productivity growth in other national agriculture sectors.

From 1980 to 2000, for example, Australian farm productivity growth was estimated at 2.6% pa, behind only that achieved by Canada and the United Kingdom, and well in excess of the average achieved by farmers in other Organisation for Economic Co-operation and Development (OECD) countries.

At an enterprise level, productivity performance within the agricultural sector in Australia has been quite varied. The clear story that emerges is that those farmers relying on cropping for a large share of their income have enjoyed higher rates of productivity growth than those relying on extensive livestock enterprises.

Annual productivity growth in the sheep industry was disappointing, measuring 1% pa or less in recent decades. The productivity growth of specialist beef farms has been better than that of sheep specialists, but less than that of cropping specialists. Productivity growth in the beef sector has been increasing, but this may be partly explained by favourable seasonal conditions in northern Australia.

The research found few comparable international studies of productivity growth at an enterprise level. However, some studies supported the view that productivity in cropping enterprises has been higher than that in livestock enterprises.

The report also examines factors that have contributed to agriculture's impressive productivity growth and, in particular, the role of research and development (R&D).

Whilst a relationship exists between investment in R&D and productivity growth, the time lag between the investment and the productivity growth may be in the order of 35 years or more.

The researchers estimated that approximately half the observed agricultural productivity growth could be attributed to Australian investment in agricultural R&D, with the balance generated by improvements in sectors such as communications and transport, and through adoption of overseas agricultural research/technology.

Australia's climate and its dependence on broadacre agriculture suggest that spillovers of international investment in agricultural research – though important to Australia – may be less important than domestic knowledge.

The report found no evidence that the returns from investment in agricultural research within Australia are falling and, in fact, recommended that every effort should be made to preserve the current rate of investment.

The rate of return to agricultural R&D investment was estimated to be in the order of 10–30% pa. The report also noted the potential risks associated with a decline in the level of agricultural R&D investment, given that it can take decades before returns from agricultural R&D are realised.

The report can be viewed by members or purchased by non-members at www.farminstitute.org.au/publications/project_reports

Biofuels – fuelling agricultural growth?

Recent high oil prices have sparked a rush of interest and investment in biofuels research and production. However, there is growing concern about agriculture's capacity to both feed the world and produce feedstock for biofuels production.

The May edition of the *Farm Policy Journal* examines the economic, social and environmental implications for agriculture of increased biofuel production.

Professor David Pimentel is Professor of Ecology and Agriculture at Cornell University in the United States (US). His paper argues that while the US desperately needs a liquid fuel replacement for oil in the near future, producing ethanol or biodiesel from plant biomass is going down the wrong road, because more energy is used to produce these fuels than is obtained from the combustion of these products. The paper also highlights the environmental impacts of ethanol production.

Dr Amani Elobeid is an economist at the Center for Agricultural and Rural Development (CARD) at Iowa State University. Together with her colleague, Dr Sïmla Tokgöz, she analyses the impact of a crude oil price shock on international agricultural markets critical to ethanol, including grains and sugar. The paper notes that with the expansion of the ethanol sector, crop prices become sensitive to changes in crude oil prices, which in turn, results in reallocation of the use of crops between fuel, feed and food.

Dr Siwa Msangi is a Research Fellow in the Environment and Production Technology Division of the International Food Policy Research Institute. Together with his colleagues, Dr Mark Rosegrant, Timothy Sulser and Rowena Valmonte-Santos, he examines three global-scale scenarios that take into account the uncertainties of future biofuel supply, demand and production technology. The paper looks at the implications of these scenarios for crop prices and production, and for policy, and notes the potential for a 'food and water versus fuel' trade-off.

Professor Peter Rogers is an Emeritus Professor in the Faculty of Science at the University of New South Wales and has worked with both industry and government on a number of biotechnology R&D projects. His paper reviews recent developments in the production of biofuels, with particular emphasis on biomass as a potential source of sugars for fermentation. The paper highlights the advantages of biomass and the challenges of reducing pre-treatment and fermentation costs, and finding biomass sources that are well suited to Australian conditions.

Helen Murray is Chief Executive Officer of the Australian Lot Feeders' Association. Together with her colleague, Kevin Roberts, she examines the flow-on impacts for the livestock sector of government policies to support domestic grain-based ethanol production. The paper highlights negative impacts for grain-fed cattle producers and extensive grazing producers, and suggests that government measures will also artificially distort grain markets and harm these efficient, internationally competitive industries, which are significant employers in the regions.

Dr Inakwu Odeh is Senior Lecturer in Rural Spacial Information Systems in the Faculty of Agriculture, Food and Natural Resources at the University of Sydney. Together with his colleague, Dr Daniel Tan, he explores opportunities to grow biofuel crops in marginal and/or degraded regions of Australia beyond the current cropping regions. The paper outlines the agronomic and environmental conditions for growing exotic biodiesel crops, particularly Pongamia and Indian Mustard, and considers the potential economic and environmental benefits, as well as its limitations and constraints.

Selwyn Snell is Chief Executive Officer of Single Vision Grains Australia. Together with his colleague, Matt Kealley, he considers the position that the Australian grains industry should take in the alternative energy debate given that climate change and water and fuel security concerns are forcing the grains industry to reconsider its traditional role as a food producer. The paper comments on opportunities for the industry to benefit from the development of the 'bioeconomy'.

The May edition of the *Farm Policy Journal* will be released on 4 June. It can be viewed by members and subscribers, or purchased by non-members, at www.farminstitute.org.au/publications/journal2

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