

## **Market Profile for Agritech in the Brazil Market**

### **1.0 MARKET STRUCTURE<sup>1</sup>**

Agriculture and agribusiness have played a key role in Brazil's recent economic performance with agribusiness exports accounting for over one third of Brazil's export earnings.

In 2006 Brazil was the world's largest net agricultural exporter, and the world's largest exporter of complex soy products, orange juice, coffee, beef, alcohol, sugar, tobacco and a significant world supplier of pork, poultry, cotton, cocoa, corn and fresh fruit.

Brazil also registered its first ever trade surplus (albeit small) in dairy products in 2004 - reversing a significant trade deficit of previous years – and this trend is forecast to continue in the medium term. Brazil is also a world leader in the production and commercialisation of biofuels, both ethanol and biodiesel.

The potential for expansion in the agricultural sector is huge - the USDA estimates Brazil could expand its land area in production by up to 170 million hectares without further deforestation of the Amazon. Brazil also has 12 percent of the world's fresh water supply. Only a relatively small proportion of Brazil's agricultural production is exported – evidence of the size and dominance of the domestic market. Further expansion in agricultural production will require advances in market access for exports and significant investment in transportation infrastructure.

In general, farmers are friendly and receptive. They usually like to purchase recognised products with a certain tradition and history, and a solid name in the market. They like products that are simple to operate and effective and with a service guarantee in case of defects or breakage. People are wary about equipment sold through a distributor only to find that they are left without a servicing agreement. This has happened in the past where companies came to Brazil and at the first sign of difficulty moved out.

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## Brazil – Top 10 agritech products imported (millions of US dollars)

Product	2005	2006
Mineral or chemical fertilisers, potassic	975,560,644	968,555,783
Mineral or chemical fertilisers, nitrogenous	568,088,287	624,265,390
Mineral or chemical fertilisers (in tablets/packages not exceeding 10kg)	544,205,063	562,053,922
Mineral or chemical fertilisers, phosphatic	176,483,583	199,377,889
Insecticides	173,698,012	193,575,291
Fungicides	259,922,756	174,766,837
Herbicides	190,154,996	166,565,500
Preparations of a kind used in animal feeding	80,428,590	99,145,480
Harvesting or threshing machinery	49,695,967	37,455,555
Vaccines for veterinary medicine	25,523,802	32,493,327

Source: UN Comtrade

### 1.1 Beef Production

Brazil has over 180 million head of cattle, the largest number in the world and equivalent to around 15 percent of the total world herd. Brazil produces 8.9 million tons of beef meat per year, with production in 2007 expected to reach 9.3m metric tonnes, driven by strong export sales, and firm domestic demand. Cattle ranching resulted in beef exports of US\$1.95 billion in 2006, an increase from \$1.87 billion in 2005. Around 80% of production is for national consumption. Brazilian beef production is forecast to grow in 2007, despite the impact of Foot-and-Moth Disease, first detected in October 2005. Some countries have eased import restrictions, although large markets such as Russia and the EU still impose some level of restrictions.

The vast majority of pastures used for beef herd grazing are tropical with little or no replanting. The most common grass varieties are naturalised varieties of African grasses. The market for grass seed is typified by very low prices and is hotly contested between a few major suppliers.

In 2006, imports of bovine semen products were valued at \$6.9 million – a 50 percent increase since 2004. The United States, Canada and the Netherlands are the major sources of imported bovine genetic material.

### 1.2 Dairy Production

Brazil is the largest producer of milk and dairy products in South America, ranking seventh in the world with a dairy herd of 15 million and a production in 2006 of almost 24.7 million litres of milk. Productivity and quality are, however, very low, with average milk production per cow only 1.64 MT per head (New Zealand produces 3.71MT), increasing from 1.45MT in 2002. Ineffective sanitary legislation and the lack of adherence to good hygiene practices have contributed to continuing low quality.

A large portion of milk production is informal and salaries within the sector remain low. About 40 percent of production is traded informally. Increasing productivity in the dairy sector is largely attributable to integrated producers supported by large multinational companies including Nestle and DPA (Fonterra's South America joint venture), who support farmers to invest in genetics and pasture management.

The trend is for growth in the number of specialised dairy farmers, and a decrease in the informal market as co-operatives and industry work with dairy producers to improve hygiene, refrigeration, transportation and livestock health. These developments should present opportunities for New Zealand consultancy services in pastoral farming improvement techniques in addition to other products and services.

Pasture varieties are typically of African origin. There is a market for a robust rye grass adapted to the hot climate and this market should be explored.

There are therefore opportunities for selling Brazilian dairy farmers on New Zealand's low-cost pasture-based production systems. The trend is expected to be for growth in the number of specialised dairy farmers and a decrease in the informal market as co-operatives and industry work with dairy producers to improve hygiene, refrigeration, transportation and livestock health. These developments should present opportunities for New Zealand consultancy services in pastoral farming improvement techniques.

The majority of Brazilian milking stock is comprised of crossbreeds developed for the tropical climate, which are not machine-milkable. Most immediate opportunities are limited to the south of Brazil, where the climate is similar to New Zealand. This profile is changing, however, with genetics playing an increasing role in transforming the Brazilian dairy herd with an increasing reliance on Jersey and Friesian cows.

## **1.2 Agricultural Machinery**

The continuing strength of the agricultural sector in Argentina has increased local demand for agricultural equipment as farmers invest to expand production capacity and achieve productivity and yield gains. The increasingly integrated nature of dairy production is also driving investment in yield enhancing machinery and technology.

In 2005, Brazil produced 52,900 agricultural machinery units, with much of this destined for export. Tractors, pickers, motorised seeders and backhoe loaders accounted for the majority of these exports. Local production is dominated by international agricultural machinery companies such as John Deere and Komatsu.

Government programmes targeting the agricultural sector are also encouraging agritech investment. In the early 2000s, the Brazilian Ministry of Agriculture launched a programme to help farmers modernize their fleet of agricultural machinery and tractors. The programme offers credit lines and incentives to local farmers for purchasing locally manufactured

agricultural machinery, with a budget of \$1.9 billion in 2005. The programme accounts for around 90 percent of total sales to the market of agricultural machinery in Brazil.

Strong export prospects include innovative, high technology machinery with higher efficiency levels, including post-harvest machinery; field refrigeration units for tropical fruits; fruit, grain, seed and vegetable sorting, cleaning and grading machinery; GPS and precision agriculture devices.

## 2.0 COMPETITIVE ENVIRONMENT

The total market for agricultural machinery in Brazil was estimated at US\$5.9 billion in 2005, with local production around US\$6.9 billion and US\$707 million in imports. Imports from the US constitute approximately 66 percent of total import market or US\$467 million in 2005, with Italy, Australia, Sweden, Israel, France, Holland and Japan also holding significant market-share in certain sub-sectors.

Import volumes for agritech products and services are very high. The following figures apply to the 2006 calendar year:

- Bovine semen: US\$8,602,701
- Milking machinery, parts and accessories: US\$5,203,127
- Irrigation machinery: US\$14,706,569

### Brazil – source of imports of major agritech products (2006)

<b>Seeds, fruit and spores, of a kind used for sowing (HS 1209)</b>	<b>Value (\$US)</b>	<b>% of imports</b>
Total imports	30,924,668	
USA	7,986,766	25.83%
France	5,069,833	16.39%
Netherlands	4,654,562	15.05%
Japan	3,025,505	9.78%
<b>Preparations of a kind used in animal feeding (HS 2309)</b>		
Total imports	99,145,480	
Netherlands	20,298,032	20.47%
China	20,044,835	20.22%
USA	17,726,941	17.88%
Belgium	7,551,273	7.62%
<b>Harvesting or threshing machinery (HS 8433)</b>		
Total imports	37,455,555	
USA	25,081,154	66.96%
Argentina	2,966,480	7.92%
Japan	1,946,149	5.20%
Italy	1,554,654	4.15%
<b>Milking machines and dairy machinery (HS8434)</b>		
Total imports	5,026,992	
USA	1,022,410	20.34%
Sweden	970,911	19.31%

Germany	930,189	18.50%
Argentina	883,540	17.58%
<b>Irrigation machinery (HS 8424.81)</b>		
Total imports	14,706,569	
Argentina	6,642,509	45.17%
USA	3,219,313	21.89%
Israel	1,359,298	9.24%
Italy	1,250,862	8.51%
<b>Bovine Semen (HS0511.40)</b>		
Total imports	8,602,271	
USA	4,929,880	57.31%
Canada	1,630,762	18.96%
Netherlands	1,614,010	18.76%
France	169,778	1.97%

Source: UN Comtrade database

## 3.0 REGULATORY OVERVIEW

### 3.1 Tariffs and Duties

Brazil and its Southern Common Market (Mercosur) partners Argentina, Paraguay and Uruguay implemented the Mercosur common external tariff (CET) on 1 January 1995. Mercosur members have also unilaterally adjusted their tariffs in response to economic crises and, given these developments, the CET is currently full of exceptions – automobiles, luxury items and others carry a much higher duty.

Import duty, as defined by CET, and locally known as II, is levied on top of CIF prices. It is not, however, the only tax which should be of concern to New Zealand exporters.

On top of the CIF and import duty, a Tax on Manufactured Products (IPI) is applied, usually ranging from zero to 15 percent. IPI is a federal tax that is also paid by local manufacturers. On top of CIF, II and IPI, a state VAT applies. It is locally known as ICMS and is usually 18 percent for imported goods.

Imported products usually incur other costs, e.g. a Merchant Marine Tax (25 percent of international freight), warehouse costs, terminal handling fees, compulsory contribution to the Customs Brokers Union, the SISCOMEX fee (government-controlled computer based import control system), customs brokerage fee, bank costs and other. These costs usually amount to approximately three percent of the CIF price, but a proper check of total costs is required in each case.

Customs clearance in Brazil can be time consuming, even compared with other Latin American countries, and Brazilian Customs has also seen a number of work slow-downs and strikes in recent years.

### **3.2 Import quotas and licences**

Quantitative restrictions in general are no longer a significant barrier.

A few years ago, import licences were the most significant barrier. Now they are generally granted automatically within five days, although on occasion they are still difficult to obtain. Some products also require a licence prior to shipment and it is important to verify with a customs broker if this applies.

Under Brazil's new customs valuation regulations, customs can retain imports until the goods are officially valued.

### **3.3 Packaging and labelling**

The Brazilian Customer Protection Code requires that product labelling provides the consumer with correct, clear, precise and easily readable information about the product's quality, quantity, composition, price, guarantee, shelf life, origin and risks to the consumer's health and safety. Imported products should bear a Portuguese translation of this information. Since metric units are the official measuring system, products should be labelled in metric units or show a metric equivalent.

Many processed food products are required to have their labels approved by the Brazilian Ministry of Agriculture. The specifications for labels in this instance do change frequently so it is advisable that a check is done with New Zealand Trade and Enterprise or a customs agent.

### **3.4 Industry standards**

There are no official regulations or technical standards required by the Brazilian government for agricultural machinery.

For regulated products, the relevant government agency generally requires that entities engaged in product testing and mandatory certification be accredited by INMETRO. Generally, testing must be performed in-country, unless the necessary capability does not exist in Brazil.

There is no legal mandate as of yet to retest non-regulated products that have been approved in their country of origin. For non-regulated products, some non-Brazil marks and product certification may be accepted. As with all voluntary standards, any certification that may be required in non-regulated sectors is a contractual matter to be decided between buyer and seller. Market forces and preferences often lead to the need for a specific certification.

### 3.5 Phytosanitary requirements

Barriers to agricultural products are mainly sanitary and phytosanitary measures and an import ban on meats treated with hormones. As part of the Mercosur agreement, Brazilian phytosanitary regulations are currently being revised for several products.

Exporters should check with New Zealand Trade and Enterprise to see if their product might incur problems in entering Brazil.

## 4.0 RECOMMENDED STRATEGIES

The potential for expansion in the agricultural sector is huge, with the USDA estimating Brazil could expand its land area in production by up to 170 million hectares without further deforestation of the Amazon. Brazil also has 12 percent of the world's fresh water supply. Only a relatively small proportion of Brazil's agricultural production is exported – evidence of the size and dominance of the domestic market. Further expansion in agricultural production will require advances in market access for exports and significant investment in transportation infrastructure.

Brazil's plantation of genetically modified crops, mainly soy, has grown rapidly, to more than seven million hectares in 2005. Brazil is now the world's third largest producer of GM crops, behind the US and Argentina.

Main opportunities exist in the areas of artificial insemination, pasture management, packing-houses, fruit selection and sorting, environmental cloth and agricultural equipment for small farmers.

Market size and growth prospects create a favourable scenario for New Zealand exporters. Those companies that have unique products or are internationally competitive should investigate the market further.

Factors to take into account include:

- The country's size usually requires the exporter to develop a regional strategy. (The landmass is 32 times that of New Zealand.)
- Additional "Brazil costs" as some infrastructure services are less than ideal (ports, roads, etc). The country size and the complex tariff system make it necessary to carefully verify all logistic issues like infrastructure costs.
- For large contracts financing packages are an important factor as local interest rates are extremely high and most competitors from abroad include financing options in their proposals.

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