

## CHAPTER 12

### BRASCAN

*How to capture value in the beef chain*

MARCOS FAVA NEVES<sup>#</sup> AND ROBERTO FAVA SCARE<sup>##</sup>

<sup>#</sup> *Professor of Strategy and Marketing at the FEA-RP/USP School of Business and Economics, University of São Paulo, Brazil, and Coordinator of PENSA Brazilian Agri-business Programme*

*E-mail: mfaneves@usp.br; www.fearp.usp.br/neves*

<sup>##</sup> *PhD Candidate at the FEA/USP, School of Business and Economics, University of São Paulo, Brazil, and Researcher for PENSA Brazilian Agribusiness Program*  
*E-mail: rfava@usp.br; www.pensa.org.br*

**Abstract.** Brazil is rapidly becoming a major player in the world beef market. The Brascan Company is trying to capture more value in the beef business in order to enhance its investments. Opportunities are available for extending agro-food chains and networks that could contribute to this development. Two major strategies are discussed: (1) to become a large and reliable supplier in a beef chain, Brascan needs to grow horizontally; (2) to capture added value, Brascan needs to improve coordination in the vertical direction of the supply chain. The company is currently identifying strategies that could be helpful to achieve these aims.

**Keywords:** market segments; beef exports; quality control; vertical coordination

#### BUILDING AN INTERNATIONAL BEEF CHAIN: THE BRASCAN CASE

At the global level food moves largely from South to North, and Brazil is becoming an important supplier. In 2003, the country occupied the top position in world exports of soybean (38% of world market share), sugar (30%), beef (20%), coffee (29%), orange juice (82%) and tobacco (23%). Brazil was the second world exporter of soybean starch (34%), poultry (29%) and soybean oil (28%). In addition, Brazil delivers 16% of world pork exports, 4% of maize and 5% of cotton. The annual growth rate in these products has been 6.4% since 1990 (ICONE 2004).

The Midwest 'cerrado' region of Brazil is, according to Nobel Prize winner Norman Borlaug, one of the few remaining agricultural frontiers in the world, with almost 200 million hectares of new land suitable for agriculture.

*R. Ruben, M. Slingerland and H. Nijhoff (eds.), Agro-food chains and networks for development, 141-154.*

© 2006 Springer. Printed in the Netherlands.

The Canadian-Brazilian group Brascan is involved in several activities. It is an asset management company, with a focus on real estate and power generation. The company has US\$ 16 billion in direct investments and a further US\$ 7 billion of assets under management. It owns 55 premier office properties and 45 power-generating plants. The investment policy is geared to areas where Brascan possesses a competitive advantage, and includes acquiring assets on a value basis with the goal of maximizing return on capital, building sustainable cash flows to provide certainty, reducing risk and lowering the costs of capital. Brascan recognizes that superior returns involve hard work and often coincide with different strategies.

The long-term goals of the company involve 12-15% annual growth in cash flow from operations, 20% cash return on common equity and 12% increase in the value of the company. In 2003 Brascan experienced a 31% increase in the company's registered value. Like other large multi-business companies, Brascan is increasing the return on capital, reducing risk by narrowing the areas in which the company operates, and broadening activities in these areas. This is the reason for entering beef production, where current operational margins are 5%.

The company faces a dilemma as to whether Brascan should invest or grow by broadening its activities or trying to capture more value on current activities. Opportunities have been identified in extending agro-food chains and networks to contribute to this development. Two major points choices emerge: to be a large and reliable supplier in a beef chain, Brascan needs to grow horizontally, but to capture value-added Brascan needs further vertical chain coordination. What should it do?

#### THE BEEF CHAIN IN BRAZIL: A GROWING BUSINESS

Brazil has shown spectacular growth in the beef business. Several factors have contributed to this growth: (a) internal factors of production including genetics, diversity, costs, availability of grasslands and technology; (b) external factors including the crisis of beef production in Europe (BSE), Argentina, Uruguay and recently, the USA.

The largest beef consumer markets are the USA, European Union, China and Brazil (see Table 1). In terms of import volumes, the largest markets are the USA, Russia and other former Soviet Union countries, EU and Japan.

Table 2 shows trends in per-capita consumption of beef. The largest consumers are Argentina, Uruguay, USA, Brazil and France. Data for Brazilian production from 1995 to 2003 are shown in Table 3. Strong growth took Brazil to the number-one position in 2003, when it exported 1.35 million tons and accounted for 23% of the international beef market (against 9% in 1999 – Table 4).

*Table 1. Potential beef markets*

<b>Consumer market</b>				<b>Import market</b>			
<b>Consumption (thousand ton eq. c.)</b>				<b>Imports (thousand ton eq. c.)</b>			
	<b>2002</b>	<b>2003(*)</b>	<b>2004 (**)</b>		<b>2002</b>	<b>2003(*)</b>	<b>2004(**)</b>
USA	12,738	12,341	12,843	USA	1,460	1,363	1,510
EU	7,507	7,640	7,550	Japan	678	810	520
Brazil	6,437	6,273	6,400	Russia	660	590	650
China	5,830	6,116	6,484	EU	518	550	560
Russia	2,369	2,225	2,225	Mexico	489	370	250
Mexico	2,409	2,308	2,440	South Korea	430	444	200
Argentina	2,361	2,428	2,240	Canada	307	274	230
Other	10,300	9,152	9,183	Other	683	582	560
World total	49,951	48,800	48,544	World total	5,225	4,983	4,480

Note: (\*) Preliminary; (\*\*) Provisional ; eq. c = equivalent carcass

Source: FAS/USDA (2004); 1 ton equivalent carcass (1 ton eq. c.) is standard measure in the data analysis, 1 kg of industrialized meat is equal to 2.5 kg of meat equivalent carcass and 1 kg of boned meat is equal to 1.3 kg of meat equivalent carcass.

*Table 2. World beef consumption(kg/person/year)*

<b>Countries</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002*</b>	<b>2003**</b>
USA	43.1	43.7	44.1	43.9	43	44.2	41.9
Argentina	70	63.6	67.4	67.8	67.3	61.8	61.8
Brazil	39	38	36.3	35.8	35.6	35.8	36.2
Uruguay	66.6	72.2	71.3	61.2	51.2	60.2	56
France	25.9	26.6	26.9	27.4	23	25.8	25.6
Germany	14.7	15	15.2	15.5	13	14.7	14.7
Japan	11.5	11.7	11.7	12.	10.8	10.2	11
China	3.5	3.8	4.0	4.2	4.4	4.4	4.4

Note: (\*) Preliminary; (\*\*) Provisional

Source: Database selected from FNP Consulting – Anualpec (2003) based on USDA database. Elaborated by MAPA, October 2003

In 2004 world beef consumption was estimated at about 48,600 expressed in 1000 tons equivalent carcass. Beef consumption per country expressed in the same units for 2004 is estimated to be about 12,000 in the USA, 7,500 in the EU (including France and Germany), 6,500 in Brazil, 6,250 in China and only 2,400 in

Argentina. High consumption per capita is compensated by low population numbers in the case of Argentina, while low consumption per capita is compensated by high population numbers in China. Australia maintains a low consumption level of about 700.

**Table 3.** Brazilian livestock- sector evolution (1995-2003)

	1995	1996	1997	1998	1999	2000	2001	2002	2003*
Livestock (10 <sup>6</sup> of animals)	154.1	152.8	153.2	155.6	157.3	160.8	164.1	167.4	177.6
Production (10 <sup>3</sup> Ton Eq. C.)	6,768	6,794	6,406	6,491	6,539	6,583	6,892	7,143	7,530
Annual consumption per person	42.6	42.4	39.0	38.0	36.3	35.8	35.6	35.8	35.5
Exports (10 <sup>3</sup> Tons.)	287	280	287	370	541	554	789	929	1,140

Note: (\*) Preliminary

Source: FNP Consulting – Anualpec (2003) based on USDA database. Elaborated by MAPA, October 2003.

World beef production, estimated to be 50,047 (expressed in 1000 tons equivalent carcass) in 2004, more or less kept pace with world beef consumption (48,600 in 2004). Major producers were the USA with 11,700, Brazil with 7,800, the EU with 7,300, China with 6,300 and Australia with 1,900. Australia and Brazil have large net surpluses, which explains their position as leading exporting countries (Table 4).

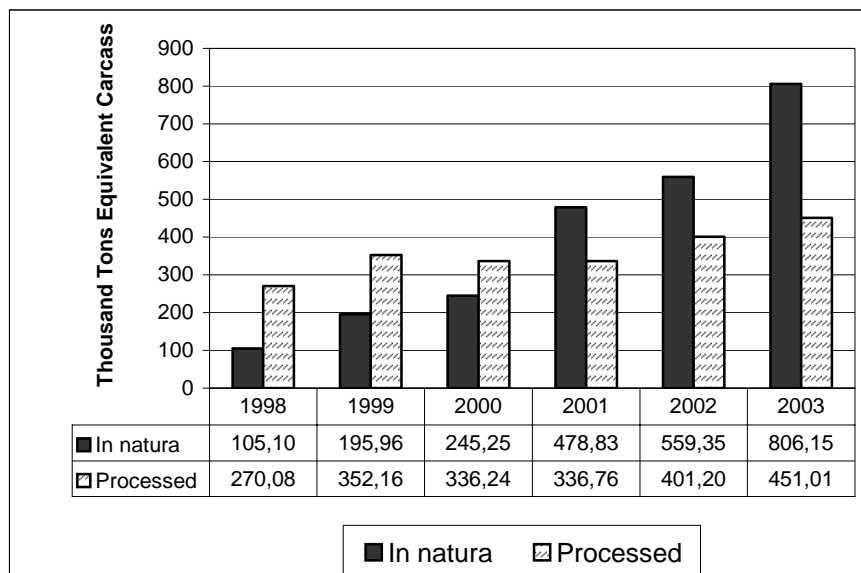
**Table 4.** World beef exports (in thousands of tons)

	1999		2000		2001		2002		2003*		2004**	
	Vol	%	Vol	%	Vol	%	Vol	%	Vol	%	Vol	%
Australia	1,270	22%	1,338	23%	1,398	24%	1,365	21%	1,261	20%	1,300	22%
Brazil	541	9%	554	9%	789	14%	881	14%	1,175	18%	1,350	23%
USA	1,094	19%	1,119	19%	1,029	18%	1,110	17%	1,144	18%	195	3%
Canada	492	8%	523	9%	575	10%	610	10%	384	6%	420	7%
New Zealand	462	8%	505	9%	516	9%	503	8%	578	9%	560	9.5%
EU	949	16%	615	10%	546	9%	512	8%	400	6%	360	6%
India	222	4%	365	6%	370	6%	416	7%	465	7%	520	9%
Argentina	359	6%	357	6%	168	3%	348	5%	384	6%	420	7%
Others	508	9%	552	9%	419	7%	641	10%	638	10%	610	10%
<b>World total</b>	<b>5,897</b>	<b>100%</b>	<b>5,928</b>	<b>100%</b>	<b>5,810</b>	<b>100%</b>	<b>6,386</b>	<b>100%</b>	<b>6,429</b>	<b>100%</b>	<b>5,880</b>	<b>100%</b>

Note: (\*) Estimate; (\*\*) Preliminary

Source: Prepared by authors based on FNP Consultoria (2003) and USDA database

Brazilian exports in 2003 amounted US\$ 1.5 billion, 30% higher than in 2002 (see Figure 1). In 2004, exports reached US\$ 2.45 billion (63% higher than 2003). A quarter of Brazilian exports are directed at the European Union, whereas 55% of imports come from the EU. The Arabian markets are also becoming more important; although paying less, but there are no quotas, taxes are lower and there is market demand for different cuts than those in prevailing demand in the EU. This is very important for slaughterhouses, since more different products from each animal can be sold. In 2004 export efforts were progressing well and are expected to reach at least US\$ 2 billion. There was a 30% growth in quantity and an almost 30% growth in value in the period January – June, compared with 2003. The largest growth in demand is reached from Russia, the United Kingdom, The Netherlands and Egypt.



*Figure 1. Brazilian beef exports evolution by category*

Source: Prepared by authors based on FNP Consultoria (2003) and USDA database

The future prospects for Brazilian beef look very bright, despite the fact that, according to ICONTE (2004), 61% of the total world beef market (US\$25.3 billion) is closed to Brazilian exports. Four of the largest five importers do not buy from Brazil because of foot-and-mouth disease. Brazil is, however, a very strong participant in the open markets, which explains why the country is the world leader (see Table 4). Getting better access to closed markets would create new export opportunities, as would tariff reductions. Today, Brazil exports to more than 100 countries and Marfrig is one of the leading companies responsible for this market diversification.

For the sake of clarity we provide some figures regarding the competitiveness of Brazilian beef exports and the impact of tariffs and levies on beef prices. A Dutch

importer (ANUALPEC 2003) pays US\$ 3,700 for a ton of 'contra-filet' from Brazil (including US\$ 200 for transport). Adding 12.8% import tax takes the price up to US\$ 4,174. The full levy tariff, EU\$ 3034/ton (US\$ 3,731), also has to be added, making the final market price US\$ 7,905 (e.g. 113% higher than the production

*Table 5. Barriers to Brazilian exports*

Product	European Union	United States	Japan
Sugar	160.8*	167.0*	154.3*
Alcohol	46.7*	47.5*	83.3
Milk	68.4*	49.1*	196.7*
Poultry (frozen cuts)	94.5*	16.9*	11.9
Swine (frozen)	50.6*	0.0	309.5*
Beef (frozen)	176.7*	26.4	50.0
Corn	84.9*	2.3*	95.4*
Tabacco	24.9*	350.0	0.0
Orange Juice	15.2	44.5*	21.4
Tariff Quota	7	4	1
Specific Tariff	8	6	4
Safeguards	5	3	2

Note: (\*) Indicates that specific tariffs were converted in their *ad valorem* equivalent. Underlined indicates the existence of safeguards; shadowed indicates sanitary barriers.  
Source: WTO, APEC, COMTRADE, USITC, TARIC – Elaborated by ICONE (Instituto de Estudos do Comércio e Negociações Internacionais)

*Table 6. Beef: trade barriers*

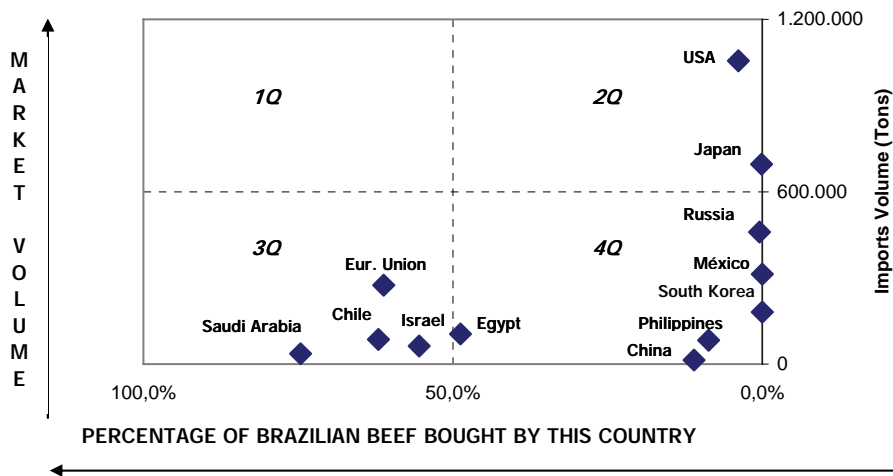
	TARIFF EXTRA - QUOTA	QUOTA	SANITARY BARRIERS
<b>EUROPEAN UNION</b>	12.8% + € 3034/t (98.2%) - refrig. 12.8% + € 3041/t (176.7%) - frozen	40,000 tons in Hilton Quota, 53,000 tons. in GATT Quota and 39,000 tons in ITQ Quota	Beef in natura: authorized for some regions of Mercosur considered foot-and-mouth disease-free
<b>JAPAN</b>	50.0% (s;s and half carcass refrigerated or frozen)	-	Demands a national territory free of foot-and-mouth disease
<b>USA</b>	26.4% Extraquota US\$ 4,4 c/Kg 1.5% 'Intraquota'	696,000 tons.	Demands a national territory free of foot-and-mouth disease

Source: USITC, OMC. Elaborated by ICONE (Instituto de Estudos do Comércio e Negociações Internacionais).

price). On top of this, distributors' margins also have to be added (10-20%). More than 50% of Brazilian exports fall under this system. The rest falls under the quotas, and is subject to a tariff of 20% (Tables 5 and 6).

Several countries have quotas but do not use them due to the lack of production capacity. Licenses have to be paid for, however, to transfer a quota from one importer to another importer. Market information shows that there are still opportunities for growth in beef consumption in countries where per-capita consumption is not high (e.g. China only has an annual per-capita consumption of 4,4 kg of beef compared to 33 kg of pork). Prices for similar-quality beef are sometimes six times higher in The Netherlands than in the largest Brazilian supermarkets. What would happen to beef consumption in Europe if these high prices were reduced? Brazil is a cost leader, as it maintains extensive and natural methods of production as well as the production capacity that would enable it to keep up with the projected growth in consumption.

The long-term competitive position of Brazil in the world market can be analysed by considering four market segments where major beef volumes are sold and the particular supply position of Brazilian producers (see Figure 2 and Annex 1). We notice that major prospects for beef exports are available in the markets of the third and fourth quadrant where demand is growing and Brazil is still a minor supplier.

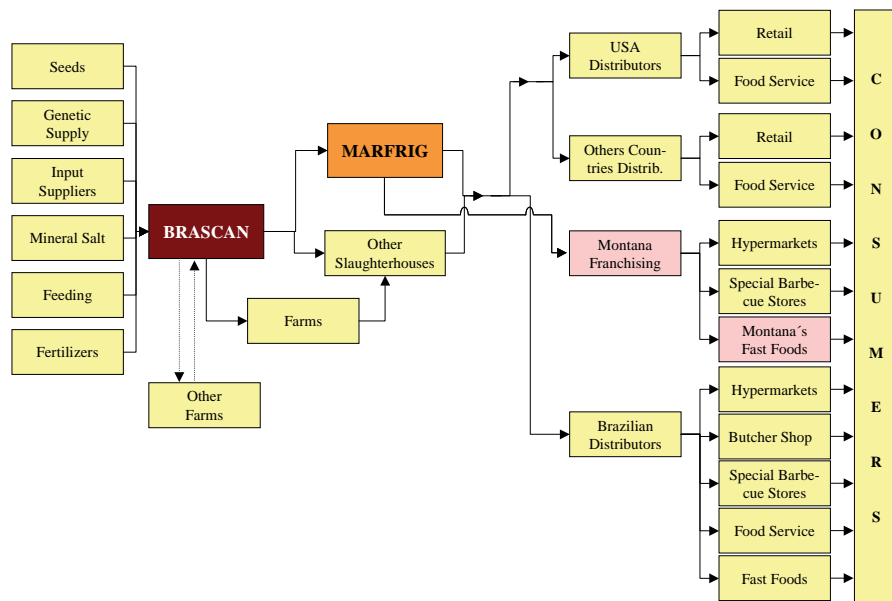


**Figure 2.** Positioning of and Participation in Markets: Brazilian Beef Competitive Quadrants  
Source: Elaborated by authors based on USDA data

#### OPERATIONS OF BRASCAN IN BRAZIL

Brascan arrived in Brazil more than 100 years ago, and was one of the first multinationals to start operating in the country. It has several businesses, including

agribusiness (cattle, land leasing for row and fruit crops, and timber), energy and other investments. It also has a bank and holds 40% of Accor in Brazil, as well as operating in hotels and employees' food coupons. Brascan strongly values long-term contracts and the company operates according to a network structure (see Figure 3).



*Figure 3. Brascan's network*

Source: Authors – Pensa 2004

Brascan entered the agribusiness sector in 1984, investing in a farm originally from the Swift group. Several investments were made and in 1999 the company started to act intensively, selling animals to the market through auctions.

Brascan now owns four farms in the southeast of Brazil: Bartira (14,400 hectares), Formosa (6,800 hectares), Mosquito (13,300 hectares) and Pirapitinga (17,900 hectares). Brascan has 40,000 cattle on these farms, 25% of which are used for artificial insemination. The main breeds are Nelore, crossed with Aberdeen Angus, Braunvieh, Brangus, Brahman and Santa Gertrudis. By 2007 they expect to have 50,000 cattle. It raises and sells weaned calves for further fattening. The breeding strategy focuses on including characteristics for precocity. All animals are traced and the brand name is 'Bartira', an Indian name.

Brascan has also diversified its operations. The farms also produce soybeans (100,000 bags/year), sugar cane (3,000 hectares), rubber (180,000 trees), pineapple (4,000 tons), 'American Quarter Horse' horses and pine and eucalyptus trees (for pulp and paper / furniture). The company also operates an environmental project, aimed at conserving the 'Mico Leão Cara Preta' monkey, which is threatened with



extinction. There is competition for land in terms of returns per activity. The value of a hectare in São Paulo is US\$ 2,000 and in Mato Grosso around US\$ 100. Each Brascan company has an environmental task group, indicating the priority that Brascan attaches to this subject. In Cerrado they own 3,000 hectares of land that has been marked for nature conservation purposes.

### BRASCAN BEEF NETWORK

Brascan excels in farm production. It has linkages with well-known research institutes in Brazil, including Unesp and Embrapa. Brascan supplies around 30,000 animals per year, either directly to slaughterhouses or selling calves to growers.

In *farm supplies*, the company has good relationships and dealings with major suppliers due to its size. In order to export more and to capture value, Brascan needs to improve its consistency and volumes, and also ensure it has well-organized supplies. To guarantee this, the company is investing in vertical integration of its genetic supply chain.

In terms of *production*, some new activities have been identified. Brascan is preparing itself for different types of long-term contracts in the beef chain. It perceives this kind of governance structure as an alternative for capturing value. In order to be able to comply with a medium contract with a distributor in the European Union the company would need 400,000 cows producing around 180,000 animals a year. At present it has 40,000 cows.

Brascan can sell calves or finished animals (ready for slaughter). The Brascan auctions are growing fast and are building up a good market reputation. They are selling calves with a 20% mark-up. Around 8000 animals are sold at six auctions each year. Brascan has been using Biorastro (linked to Eurepgap) to trace all its animals since 2001. It considers traceability as fundamental for selling in international markets. Brazil has introduced a governmental programme named SISBOV that collects data from private companies so that all animals in Brazil can be traced. It is not an easy task as Brazil is the biggest commercial producer of beef in the world and the country is very large, but a start has been made.

### AN ALTERNATIVE TO VERTICAL GROWTH IN THE AGRICULTURAL CHAIN: THE MARFRIG EXPERIENCE

Now we come to the question how Brascan can capture more value in the beef chain. The market is growing, Brazil has become the leader and Brascan sees opportunities, one of which is with the Marfrig slaughterhouse and cooling company. Before examining Marfrig, however, it is important to discuss the processing part of the supply chain and in particular the functioning of slaughterhouses in Brazil. The major slaughterhouses were started by cattle producers. They vertically integrated production and processing and became food suppliers with some marketing functions. Most are still family-managed groups. International companies were active in the beef industry, but their share has been reduced during the last 10-15 years (Table 7).

*Table 7. Brazilian exports (US\$ F.O.B.)*

Company	JAN – DEC	
	2003	2002
Bertin Ltda.	432,585,717	357,719,233
Friboi Ltda	270,540,041	164,66,904
Indústria e Comércio de Carnes Minerva Ltda.	148,225,985	92,946,846
Independência Alimentos Ltda	142,438,491	119,430,719
Marfrig Frigoríficos e Comércio de Alimentos Ltda	94,254,989	46,373,407

Source: Ministério do Desenvolvimento, Secretaria de Comércio Exterior.

The Marfrig Group includes four production centres and one distribution centre: Unit Bataguassú (MS), Unit Santo André (SP), Unit Promissão (SP), Unit Ribas do Rio Pardo (MS) and Unit Tangará da Serra (MT). The production units located in Bataguassú (MS) and Promissão (SP) have a slaughtering capacity of 1,900 heads of cattle per day, processing a total of 40,000 metric tons of beef per month. The distribution centre, located in Santo André (SP), has a storage capacity of 8,000 metric tons of food products.

Marfrig exports were valued at almost US\$ 100 million in 2003, 100% more than in 2002. The company has introduced some innovative practices in the beef business, as its background is in beef distribution. The company's employees, about 2,000 people, received professional training, educational incentives, health care and nutritional assistance. A body of highly specialized technicians is in charge of the general supervision of all the processes and also takes care of the international protocols of quality and health.

The company's quality-control department makes use of a modern audit system, aligned with international standards of corporate management, to monitor all the processes of slaughtering, boning, packing, transportation and distribution. The quality programme implemented by the company involves a set of actions geared to the production of top-grade beef, meeting the rising demand from domestic and foreign markets. The first step of the programme is putting to pasture high-quality calves that will be slaughtered at roughly 30 months of age, accompanied by minimum standards for fat-covering, raising, livestock health and nutrition techniques.

The farms where livestock production occurs are no further than 300 km away from the slaughterhouses. This is a key factor for the production process, and guarantees better beef quality. The procedures recommended in this programme comply with international animal-welfare norms.

The quality-control programme also includes the certification of livestock origin. The process starts at the cattle ranges, where animals are identified with an earring and kept until they are slaughtered at the abattoir. All the animals currently slaughtered at Marfrig can be tracked through the Bovine Identification System (SISBOV – *Sistema de Identificação Bovina*), guaranteed by Brazil's Ministry of Agriculture. The whole process is supervised and certified by the Biorastro system

(visit to the cattle ranges) and HACCP (Hazard Analysis and Critical Control Points), both of which are internationally recognized by the FDA (US Food and Drug Administration), the European Union and the FAO/WHO Codex Alimentarius.

Another label of certification that the Marfrig Group has is granted by the Bio-Dynamic Institute (IBD – *Instituto Bio-Dinâmico*), which certifies the company's organic-meat process and is recognized by international entities. Marfrig undertakes several activities with meat distributors in Brazil, using the Montana brand in fast food, and the premium Montana Beef.

The domestic market for beef is very attractive due to high per-capita consumption. However, 50% of this market is informal, making it difficult for an organized company to operate. Moreover, the internal market absorbs meat and meat cuts that cannot be exported. With regard to competitiveness, it is expected that foreign companies will enter the Brazilian market. Once Brazilian production has access to other major beef-importing countries, Brazil will have to solve the tax problems and install a more rigorous tax-monitoring system. Several studies are being conducted and reforms are likely to take place in the next two to three years.

Brascan embarked upon a relationship with Marfrig in 2001. At that moment, Marfrig was just one possible marketing channel for selling animals, similar to a number of other slaughterhouses. After four years of building relationships with producers, a higher degree of trust has been established, some joint projects and studies have been started, and some joint planning takes place, but there are still no formal supply contracts. Brascan brings international buyers for Marfrig's products and has a good relationship with the company. However, this does not necessarily lead to better prices.

#### FURTHER PERSPECTIVES

Brascan needs to capture more value in the beef business in order to justify the investments in beef made by the head office. Opportunities to contribute to these developments are perceived in extending agro-food chains and networks. Two major alternatives emerged. First, to become a large and reliable supplier in a beef chain, Brascan needs to grow horizontally to a position where it maintains 400,000 cows. A key issue here is to identify which horizontal governance structures are appropriate for Brascan. Second, to capture added value, Brascan needs to increase vertical coordination throughout the supply chain. The company is currently identifying strategies to help it achieve this objective by tightening its relations with Marfrig.

#### ACKNOWLEDGEMENTS

The authors would like to acknowledge Renato Cavalini and Luis Fernando Della Togna from Brascan for their full-time support and Raquel Nascimento from PENSA, who participated in a first draft. This project is part of the European Union's SAFEACC project ([www.globalfoodnetwork.org](http://www.globalfoodnetwork.org)).

## FURTHER READING

- Berman, B., 1996. *Marketing Channels*. New York: Wiley.
- Bridgewater, S. and Egon, C., 2002. *International Marketing Relationships*, Palgrave.
- Camargo Neto, P., 2002. *Apresentação: Panorama Mundial da Carne. Ministério da Agricultura, Abastecimento e Pecuária*. Séc. de Produção e Comercialização.
- Cavalcanti, M.R., 2002. *Relatório Beef Point – SIAL 2002*. Piracicaba.
- Coughlan, A., 2001. *Marketing Channels*. Prentice Hall, 6th ed.
- Gemunden, H.G., 1997. *Relationships and Networks in International Markets*. Oxford: Pergamon.
- Naude, P and Turnbull, P.W., 1998. *Network Dynamics in International Marketing*. Oxford: Pergamon.
- Neves, M.F., Machado, C.P., Carvalho, D.T. and Castro, L.T., 2002. *Building Networks in the Global Beef Market – The 18th Annual IMP Conference – ESC Dijon*, 5 - 7 September 2002, p. 42.
- Neves, M.F., Scare, R.F., Bombig, R.T. and Castro, L.T., 2002. *Choque de Marketing na Pecuária de Corte Brasileira - Anais do 5º Congresso Brasileiro das Raças Zebuínas- Uberaba-MG; 20 - 23 October 2002*.
- Neves, M.F., Zylbersztajn, D., Machado Filho, C.P. and Bombig, R.T., 2002. *Marketing & Ações Coletivas em Redes de Empresas: O Caso da Carne Bovina no Mato Grosso do Sul - Anais do XI Congresso da SOBER, Universidade de Passo Fundo (UPF), 2002*, p. 181.
- Neves, M.F., Machado, C.P., Carvalho, D.T. and Castro, L.T., 2002. *Marketing da Carne Bovina com Visão de Redes de Empresas (“Networks”)* - Revista de Administração de Lavras. Vol. 4, nº 2, julho/dezembro de 2002, p. 73-85.
- Rosembloom, B., 1999. *Marketing Channels – 6th. ed.* Chicago: The Dryden Press.
- Stern, L., El Ansary, A. and Coughlan, A., 1996. *Marketing Channels*. New York: Prentice Hall.

## FURTHER INFORMATION

- ABIEC - Brazilian Association of Beef Exporter Industries [www.abiec.com.br](http://www.abiec.com.br)
- ANUALPEC 2003 – *Brazilian Cattle Breeding Yearbook* – FNP Consultoria. São Paulo. 2003. [www.fnp.com.br](http://www.fnp.com.br)
- BRASCAN Brasil - [www.brascanbrasil.com.br](http://www.brascanbrasil.com.br)
- Brazilian Association of Nelore Cattle Breeders - [www.nelore.org.br](http://www.nelore.org.br)
- Brazilian Beef Information Service - [www.sic.org.br](http://www.sic.org.br)
- Brazilian Institute of Geography and Statistics IBGE - [www.ibge.gov.br](http://www.ibge.gov.br)
- Brazilian Rural Society - <http://www.srb.org.br>
- EMBRAPA Beef Cattle - <http://www.cnpqc.embrapa.br>
- ICONE – Institute for International Trade Negotiations. [www.iconebrasil.org.br](http://www.iconebrasil.org.br)
- Marfrig Slaughterhouse Group - [www.marfrig.com.br](http://www.marfrig.com.br)
- Ministry of Agriculture Cattle Raising and Provision - <http://www.agricultura.gov.br>
- Ministry of Development, Industry and Foreign Trade - [www.desenvolvimento.gov.br](http://www.desenvolvimento.gov.br)
- Montana Grill Group - [www.montanagrill.com.br](http://www.montanagrill.com.br)
- PENSA - Brazilian Agribusiness Program – [www.pensa.org.br](http://www.pensa.org.br)
- University of São Paulo - [www.usp.br](http://www.usp.br)
- USDA – United States Department of Agriculture. [www.usda.gov](http://www.usda.gov)

## ANNEX A (background for Figure 2)

*Table A1. Big-volume markets where Brazil is not relevant*

<b>Beef imports – metric tons per origin country</b>				
<b>USA</b>	<b>2000</b>	<b>%</b>	<b>2001</b>	<b>Share</b>
<b>Total imp.</b>	<b>,</b>	<b>4%</b>	<b>1,056,004</b>	<b>(%)</b>
Australia	341,510	12%	383,719	36%
Canada	33,133	7%	353,671	33%
N. Zealand	212,379	0%	211,854	20%

<b>Mexico</b>	<b>2000</b>	<b>%</b>	<b>2001</b>	<b>Share</b>
<b>Total imp.</b>	<b>309,093</b>	<b>1%</b>	<b>312,996</b>	<b>(%)</b>
EU	239,681	0%	239,108	76%
Canada	42,046	41%	59,104	19%
Uruguay	13,765	-97%	450	0%

<b>Russia</b>	<b>2000</b>	<b>%</b>	<b>2001</b>	<b>Share</b>
<b>Total imp.</b>	<b>333,073</b>	<b>38%</b>	<b>459,756</b>	<b>(%)</b>
European U.	133,573	145%	327,582	71%
Ukraine	139,930	-35%	90,379	20%
Mongolia	15,249	-29%	10,765	2%

<b>Japan</b>	<b>2000</b>	<b>%</b>	<b>2001</b>	<b>Share</b>
<b>Total imp.</b>	<b>740,592</b>	<b>-6%</b>	<b>695,762</b>	<b>(%)</b>
EU	361,999	-10%	324,727	47%
Australia	332,617	-2%	326,453	47%
New Zealand	15,183	18%	17,954	3%

Source: USDA

*Table A2. Large-volume markets where Brazil is relevant*

<b>Beef imports - metric tons per origin country</b>				
<b>European Union</b>	<b>2000</b>	<b>VAR (%)</b>	<b>2001</b>	<b>Share</b>
<b>Total</b>	<b>299,185</b>	<b>-8%</b>	<b>274,869</b>	<b>(%)</b>
Brazil	150,239	12%	168,149	61%
Argentina	60,886	-56%	26,966	10%
Uruguay	20,906	-11%	18,571	7%

Source: USDA

*Table A3. Small-volume markets where Brazil is relevant*

<b>Beef Imports- metric Tons Per Origin Country</b>				
<b>Egypt</b>	<b>2000</b>	<b>%</b>	<b>2001</b>	<b>Share</b>
<b>Total</b>	<b>163,131</b>	<b>-36%</b>	<b>104,591</b>	<b>(%)</b>
EU	131,577	-97%	3,828	4%
Brazil	3,814	1237%	51,002	49%
India	24,230	51%	36,586	35%

<b>Philippines</b>	<b>2000</b>	<b>%</b>	<b>2001</b>	<b>Share</b>
<b>Total</b>	<b>88,224</b>	<b>-6%</b>	<b>82,710</b>	<b>(%)</b>
India	43,471	15%	49,815	55%
Australia	16,659	24%	20,641	23%
Brazil	1,892	279%	7,175	8%

<b>Israel</b>	<b>2000</b>	<b>%</b>	<b>2001</b>	<b>Share</b>
<b>Total</b>	<b>62,620</b>	<b>1%</b>	<b>63,055</b>	<b>(%)</b>
Brazil	13,469	159%	34,950	55%
Uruguay	28,088	-29%	20,020	32%
Argentina	16,521	-59%	6,741	11%

<b>Chile</b>	<b>2000</b>	<b>%</b>	<b>2001</b>	<b>Share</b>
<b>Total</b>	<b>88,873</b>	<b>-4%</b>	<b>85,328</b>	<b>(%)</b>
Brazil	29,067	82%	52,943	62%
Paraguay	21,366	20%	25,662	30%
Argentina	32,892	-87%	4,344	5%

<b>Saudi Arabia</b>	<b>2000</b>	<b>%</b>	<b>2001</b>	<b>Share</b>
<b>Total</b>	<b>30.234</b>	<b>18%</b>	<b>35,565</b>	<b>(%)</b>
Basil	3.139	745%	26,538	75%
EU	22.236	-100%	35	0%
Australia	848	550%	5,514	16%

Source: USDA

*Table A4. Potential markets*

<b>Beef imports -Metric tons per origin country</b>				
<b>China</b>	<b>2000</b>	<b>VAR (%)</b>	<b>2001</b>	<b>Share</b>
<b>Total</b>	<b>11,181</b>	<b>28%</b>	<b>14,269</b>	<b>(%)</b>
USA	6,606	3%	6,834	48%
Australia	2,398	12%	2,692	19%
Brazil	848	86%	1,576	11%

Source: USDA