## TRENDS IN MEAT CONSUMPTION IN BRAZIL

53. Sou (60

reg

Sou alm

plac pric

con

fish

(43 whi

anis

Reg

14.

8.0

(9.0

asp

pou plac

mo

hig

5. (

safe

inte

mar

Fig

10

Fig

6. R

ANT

BG

ŋ

BLI

# Uilde Alessandro GAGLEAZZI<sup>1</sup>; Farah Tramentosa GARCIA<sup>1</sup>, Renato Ferraz GARCIA<sup>2</sup>, Flávia M. de M. BLISKA<sup>3</sup>, Hana Kiyoko ARIMA<sup>3</sup>; Kátia M. V. A. B. CIPOLLI<sup>3</sup>

#### **1. BACKGROUND**

Brazilian meat production in 2000 was estimated in 14.9 million tons: 49.7% of beef, 35.6% of poultry, and 14.7% of pork. The country is the world's second largest beef producer (14.9%), third poultry producer (12.5%), and the eighth pork producer (2.8%). Brazil is also the world's third largest beef exporter (8.5%), third poultry exporter (15.1%), and thirteenth pork exporter (1.2%)<sup>4</sup>. And, also produces buffaloes (1.0 million heads), sheeps (14.5 millions heads), goats (8.1 millions heads), rabbits, water-hogs, frogs, and fishes, among other meats. Nevertheless, the national per capita consumption of meats are estimated in 40.0kg/year of beef (92.3% of the national beef production); 30.0kg/year of poultry (84.7% of the national poultry production); and 12.0kg/year of pork (94.0% of the National pork production)4. The development of domestic market is essential to the meat consumption growth and to the competitiveness of the sector, that can be achieved by product differentiation, market segmentation and development of novel and some existent market niches. The identification of consumption trends will help the meat chains to define their own strategies on animal production and on meat processing. Traditionally, the herd and slaughtering sector are located in the Middle Western, Southeastern and Southern regions, while the beef processing industry is concentrated in the Southeast and South. The pig and poultry raising, slaughtering and processing industries are located in the Southern and Southeastern regions.

#### 2. OBJECTIVES

This work analyzed questionnaires applied to two specific groups, which are representatives of national highest income consumers: a) questionnaires applied via internet and b) personal interviews in Southeastern metropolitan regions. The aspects considered were consumer preferences, purchase habits, and factors they consider relevant during purchasing.

### **3. METHODS**

Due to non-existence of earlier relevant studies on country meat consumption and not existent appropriate secondary data, scarcity of time, financial and human resources constraints, the RASA model (Rapid Agri-Sector Analysis) was selected as the most flexible (coat rack) approach for an explorative meat consumption analysis. The steps of RASA activities (BLISKA et al., 1999) were: 1) Definition and organization of the R&D team, at the study objectives, of the methods and expected outcomes; 2) Inventory of all the local secondary data on the meat consumption (such as estimated per capita consumption, purchase costumes, markets, products, meat chains and policies); 3) A pre-diagnostic sector overview, through literature review, data base consulting, discussions with key informants; 4) Selection of key stake holders along meat chains to be investigated for primary data collection (specially major and minor retailers, associations, meat R&D professionals); 5) Development of interview checklists according to the nature of information required for the study; 6) Meeting with R&D team to validate the methodology and tools for primary data collection; 7) Contacting and subsequent visits to urban sales points, development and application of specific questionnaire by internet and by personal interviews to consumers (between July and December/2000); 8) Preliminary analysis and discussions with research team for feedback purposes. These data will be applied to RASA model after the completion of 9) Statistical analyzes of the questionnaire applied by internet and complete information collection from additional key informants along the filière; and 10) Clarification of controversial and/or contradictory information with representatives of each segment of the chain. Firstly, we analyzed the secondary data from Brazilian Institute of Geography and Statistics, IBGE (1996), on meat consumption in the main metropolitan regions. Secondly, we analyzed the data of the questionnaires applied by internet (all over the country) and by personal interviews. Finally, the results of both questionnaires obtained were compared. A total of 1091 questionnaires were analyzed, 647 received from internet and other 444 interviews (conduced in the metropolitan areas of the São Paulo State, in the Southeastern region). Internet group is the target consumer group that leads the habits disseminate among other social economical classes.

## 4. RESULTS AND DISCUSSIONS

Main trends in the past, between 1987-1996, extracted from IBGE data were: a) The total meat consumption in Brazil, between 1987-96, increased in all social economic classes, and more intensive among classes with income above 20 ms (monthly minimum salary<sup>5</sup>); b) Among meats, pork maintained stagnant or decreased, in some metropolitan region; c) The consuming transition from forequarter beef to hindquarter beef starts at level of 8-10ms (the maximum of forequarter beef occurred at this level); c) Until 20-30ms the viscera consumption is crescent; d) Pork consumption started 20-30ms, and the maximum consumption occurred in the class above 30ms; e) The increase of poultry consumption is highest among meats, in all social economic classes; f) The Southern region presented the highest total meats consumption.

<sup>2</sup> Zootechnic, trainee at Meat Technology Centre (CTC/ITAL)

Scientific Researches, at Meat Technology Centre, Institute of Food Technology (CTC/ITAL). Av. Brasil, 2880, Campinas, SP, CP.139, 13.073-001, Brazil emails: bliska@ital.org.br, kcipolli@ital.org.br, hana@ital.org.br

<sup>4</sup> USDA, in ANUALPEC, 2000

<sup>&</sup>lt;sup>1</sup>Veterinarians, trainees at Meat Technology Centre (CTC/ITAL)

The main data obtained from the questionnaires by internet were (Figures 1 and 3): a) Characteristics of the answerer: 53.3% were men, 87.7% were between 20 and 49 years old, 87.48% were graduate or post-graduate, and 67.5% lived in the Southeastern region; b) 51.6% consider themselves as the family meat expert; c) 67.6% usually consume beef more frequently (60.0% country average), 26.8% consume poultry more frequently (this consumption has similar distributions among all macroregions), 3.4% consume fish more frequently, and 2.2% consume other meats more frequently. The pork consumption in the Southern region was higher than in others. Fish consumption was high in the North and Medium-West, while in the South it was almost non-existent; d) 78.8% usually eat meat at home (73.0% is the country average), 20.0% at restaurants, and 1.2% in the other places; f) Regarding to purchase decision, 24.9% consider preparation the important factor, 19.5% the nutritional aspects, 6.8% the price, and 48.8% consider other factors without specification but they included aspects such as habit, safety and taste; g) Beef has the consumer preference (45.3%), independent of price, religion habits, safety and other constraints; in second place consumers prefer fish (23.0%); then they prefer pork (14.4%); and finally, they prefer poultry (13.2%). Regionally, the beef preference in the Northern (43.4%) is supplanted by fish preference (47.8%); h) 49.6% usually decide previously, at home, what kind of meat they wish to buy, while 40.8% decide at the selling point; 9.6% of them do not buy meat. This behavior is similar in all regions; i) 36.2% of the aniswerer buy meat one or two times a week, 34.5% buy meat bi-monthly, 14.7% buy monthly, and 14.6% have other habits; j) Regarding to beef, 29.5% buy more than 3,0kg per purchase, 16.1% buy 2.1-3.0kg, 18.0% buy 1.6-2.0kg, 17.3% buy 1.1-1.5kg, 14.0% buy 0.6-1.0kg, and 5.1% buy 0.5 or less per purchase; k) Regarding to pork, poultry and fish, respectively, 5.8%, 19.0% and 8.0% buy more than 3.0kg per purchase; I) The cap of rump (19.3%), tenderloin (16.0%), rump with tail of rump (11.0%), shortloin (9.0%), and poultry breasts (6.3%) are the preferred cuts.

Results obtained by personal interview (Figures 2 and 4) differ of those obtained from internet mainly in the following aspects: a) Only 38.3% of answerer were graduated or post-graduated; b) Besides bee, pork consumption (54.7%) is higher than poultry consumption (47.2%); c) 90.3% consume meat at home; only 7.9% consume meat at restaurants and 1.8% consume it in other places; d) After beef, poultry was the second in preference; e) 50.2% buy meat one or two times a week, only 4.1% buy meat bi-monthly and 11.7% buy it monthly; f) Regarding to the volume of meat acquired per purchase, 0.6-1.0kg was the usual amount.

The education level of interviewed people was very different. As we expected, internet users presented education level higher than the other answerers.

## 5. CONCLUSIONS

Meat consumption habits does not maintain a strong direct relationship with the price of the product. Meat preparation, <sup>sa</sup>fety and health characteristics had the highest relationship. Although, we have to take account the high education level of the internet group, that is very different compared to the education level of the average citizen. And, regarding to purchase decision, <sup>marketing</sup> and publicity strategies should catch consumers at home and in the selling point.











Figure 3: Reason of meats purchase decision in Brazil, regionally, questionnaires via internet, 2000.





# 6. REFERENCES

ANUALPEC 00. Anuário da Pecuária Paulista. São Paulo: FNP Consultoria & Comércio, 2000, 392p. BGE. Pesquisa de Orçamento Familiar – POF, 1987 and 1996.

BLISKA, F. M. M.; LEAL, E. A.; FONTAINE, G; HENRY, G; ARIMA, H. K Perfil e perspectivas para o setor de carne bovina dessecada no Estado de São Paulo. TecCarnes – Tecnologia e Ciência. Campinas: Associação Brasileira de Ciência de Carnes, v.1, nº-1, p.22-28, nov./dez. 1999.