



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

*No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.*



**IATRC**

INTERNATIONAL AGRICULTURAL  
TRADE RESEARCH CONSORTIUM

Policy Brief

# Non-Tariff Barriers to Trade in Agricultural Products: Challenges for Brazil's Beef Exports

Sílvia Helena Galvão de Miranda and  
Geraldo Sant'Ana de Camargo Barros

June 5, 2010  
IATRC Policy Brief #PB2010-04

## Non-Tariff Barriers to Trade in Agricultural Products: Challenges for Brazil's Beef Exports

By **Sílvia Helena Galvão de Miranda and Geraldo Sant'Ana de Camargo Barros**

*Sanitary and technical requirements on beef trade, and agricultural products in general, have a strong effect on developing countries, not only by restricting trade flows, but also by depressing prices. Significant efforts are required to improve the exchange of information among countries, government agencies, and private companies, strengthen human capacity and technological infrastructure, and increase developing countries' participation in international scientific organizations.*

Exporters around the world face numerous and increasing non-tariff requirements (e.g., sanitary, technical, environmental, social) on agricultural products. These requirements can be particularly challenging for developing countries, which often lack the specialized human capital, technological and institutional infrastructure, and financial resources to evaluate and conform to these requirements.

The Sanitary and Phytosanitary (SPS) and Technical Barriers to Trade (TBT) agreements, implemented under the World Trade Organization (WTO), encourage countries to harmonize their sanitary and technical requirements with international scientific and technical guidelines and to recognize the equivalency of regulations adopted across member countries. The international meat market is highly regulated and protected, and trade in bovine meat products is strongly affected by technical and sanitary regulations and quality standards.

Brazil has been a major beef exporter since 2004. The WTO's harmonization and equivalence processes are complex, and Brazilian exporters face a great diversity of requirements imposed by importers. Meeting these varied requirements is difficult and increases the costs of production. Moreover, the fact that, in some cases, sanitary and technical regulations have not been aligned with SPS and TBT provisions has raised suspicion in Brazil that these policies are being used to restrict commerce rather than to protect human, animal and plant health, and ensure food safety.

*Study purpose and methodology:* To inform the debate on this issue and identify policies to guide and support Brazil's export sectors, a study was undertaken to analyze the impact of non-tariff trade barriers, particularly sanitary measures, on Brazil's beef exports (Miranda and Barros 2009). An economic model was applied to trade and economic data to identify and measure the effects of selected sanitary and technical events and related regulations on Brazil's beef exports to the European Union (EU) between January 1992 and December 2000. Interviews were also conducted with government officials and major export-oriented slaughterhouses to collect information on sanitary and technical issues affecting Brazil's beef market.

*Findings:* The underlying hypothesis for the study was that sanitary events and the related regulations affect the prices and/or quantities of beef exported by Brazil. However, one of the challenges of this type of analysis is that the direct economic and social impacts of sanitary and technical requirements or events are often uncertain and difficult to measure. The results of the study suggest that the volume of Brazilian exports of unprocessed beef products to the EU are influenced by European demand conditions and both Brazilian supply and demand conditions, in particular those related to the cattle and wholesale markets. The real exchange rate and domestic income also help to explain changes in the quantities exported.

However, the economic model showed significant trade impacts for only a few of the sanitary events examined. The most significant outcome was a sanitary event in March 1995, when exports of Brazilian beef were suspended by European countries for three months due to an outbreak of foot-and-mouth disease. Export prices were also pushed



**Sílvia Helena Galvão de Miranda**

Professor  
Departamento de Economia,  
Administração e Sociologia  
University of São Paulo  
Piracicaba  
Brasil  
smiranda@esalq.usp.br



**Geraldo Sant'Ana de Camargo Barros**

Professor  
Departamento de Economia,  
Administração e Sociologia  
University of São Paulo  
Piracicaba  
Brasil  
gsbarro@esalq.usp.br

downward during this time period.

The interviews with Brazilian beef exporters indicate a perception that private standards (i.e., those imposed by importing companies) generate more difficulties and higher compliance costs than government rules. The interviews also revealed that Brazilian exporters are often not well-informed about the international regulatory environment concerning trade in beef.

Despite consistent industry complaints about the negative impacts of sanitary requirements on beef exports, it was not possible to isolate the effect of a single measure on trade flows. However, it is clear that whenever there is a sanitary outbreak, prices are impacted, even if exports are not banned.

*Policy Recommendations:* The results of the analysis and interviews suggest some policy recommendations for improving Brazil's ability to assess and comply with non-tariff requirements in the future.

First, given the growing number and complexity of non-tariff measures on agricultural products, it is important to develop a better system for monitoring and evaluating these measures and for sharing this information among public agencies and the private sector. Such a monitoring system should include efforts to: identify and better assess the economic, social, and environmental impacts of non-tariff measures; determine whether non-tariff measures are legitimate under WTO provisions; analyze the possibility of conducting political negotiations with importing countries or establishing bilateral agreements to address conflicts over non-tariff measures; and determine the role of government in providing technological support and infrastructure to help Brazilian exporters comply with standards imposed by importers. Databases on non-tariff measures are also needed to address the lack of information in Brazil about the international beef market and its regulations. Such databases should include notifications of sanitary and technical requirements, and data on past or present trade disputes between companies and between countries. This would also provide a rich source of data for further analyses.

Second, given the scarcity of government technicians to address the challenges posed by non-tariff requirements, closer relationships between government agencies and research institutes and universities are also needed to facilitate the exchange of information and data.

Finally, Brazil and other developing countries need to increase their participation in international forums that address sanitary and technical regulation and standardization (e.g., Codex Alimentarius, World Organization for Animal Health, International Plant Protection Convention). The current low level of participation by developing countries means that the sanitary and technical guidelines are driven largely by the interests of the developed countries. However, in order for developing countries to participate more actively in these organizations, investments are needed in human capacity building and infrastructure. In addition to domestic investments in education and technological infrastructure, technical cooperation and assistance from countries that have relatively more abundant human and financial resources is necessary to help developing countries deal effectively with the diversity and complexity of sanitary and technical issues.

**Reference**

Sílvia Helena Galvão de Miranda and Geraldo Sant'Ana de Camargo Barros. 2009. The Application of Intervention Models to Non-Tariff Trade Barriers: A Case Study of Brazilian Beef Exports. *Journal of International Agricultural Trade and Development* 5 (2): 255-72.

This research was supported by the William and Flora Hewlett Foundation through their generous support of the Hewlett/IATRC Capacity Building Program.

[www.iatrc.org](http://www.iatrc.org)