



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

*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.

Theme Overview: The Agricultural Production Potential of Latin America: Implications for Global Food Supply and Trade

Elizabeth Canales and Marco Palma

JEL Classifications: N56, Q13, Q17, Q18

Keywords: Agriculture, Infrastructure, Investment, Latin America, Policy, Production, Trade

The Latin American region is an important U.S. trade partner. Historically, the region has been a significant supplier of fruit and vegetables during the winter months in the United States. High-value specialty crops, which are generally labor-intensive and highly perishable, have gained prominence in Latin America due to increased demand and improvements in production efficiency, infrastructure, and transportation (Palma, Ribera, and Bessler, 2013). This trend is expected to continue, particularly for functional foods (Kotilainen et al., 2006; Liu, 2013; Palma, Ribera, and Knutson, 2016). However, countries like Brazil and Argentina, are large producers of oilseeds and meat and compete directly with U.S. agricultural products in international markets (Muhammad and Valdes, 2019).

The articles in this theme seek to provide an understanding of the agricultural potential of different Latin American subregions—Brazil, Mexico, the Southern Cone region (Argentina, Paraguay, and Uruguay), the Andean region (Chile, Peru, Colombia, Ecuador and Bolivia), and Central America and the Caribbean—and the challenges and opportunities they face. The articles focus on commodities of economic importance for these countries with a comparative advantage in international markets, particularly because of their proximity and relationship to U.S. trade.

The articles discuss agricultural production growth as a result of crop area expansion and productivity gains, reviewing agricultural policies that have propelled or limited agricultural production and trade in the region. They also reference the state of the infrastructure and its capacity to sustain growth, trading relationships, and the role

Articles in this Theme:

[Brazil's Agricultural Production and Its Potential as Global Food Supplier](#)

Yuri Clements Daglia Calil and Luis Ribera

[Agricultural Production Potential in Southern Cone: Argentina, Paraguay and Uruguay](#)

Alvaro Durand-Morat

[Mexico's Agricultural Sector: Production Potential and Implications for Trade](#)

Elizabeth Canales, Graciela Andrango, and Angelica Williams

[The Andean Region: An Important and Growing U.S. Agricultural Trade Partner](#)

Jaime Málaga, Jorge Jair Avila-Santamaría, and Carlos E. Carpio

[Agricultural Production of Central America and the Caribbean: Challenges and Opportunities](#)

Felipe Peguero, Samuel Zapata, Luis Sandoval

of domestic and foreign direct investment. One element of this theme is how different countries in the region have positioned themselves to address emerging trade opportunities to meet global food demand—specifically to address changes in dietary intake due to shifts in consumer preferences of an increasing population with higher purchasing power (growing global middle class) (Regmi and Gehlhar, 2001; Ferrier and Zhen, 2017; O’Hara, Narayanan, and Mulik, 2018). We hope that interested readers will find this information useful, particularly as changes in food cultures and world demand will likely be followed by changes in the production and distribution of food across the globe.

First, Calil and Ribera discuss the importance of Brazil as one of the top exporters of agricultural products, including coffee, sugar, meat, poultry, soybeans, and corn. The article analyzes Brazil’s main drivers of growth and trade competitiveness, which include the mechanization of the agricultural sector and the adoption of efficient and more sustainable production systems that boosted agricultural productivity. Brazil has expanded its agricultural frontier over the last few decades. Calil and Ribera argue that additional growth potential resides in Brazil’s capacity to increase productivity in new agricultural production geographical areas. One market factor discussed in this article that fuels growth in the agricultural sector is the increase in demand for agricultural products in China, Brazil’s leading trade partner. An advantage Brazil has in grain crop production over the United States is its capacity to obtain two grain crops per season (for example, soybean–corn) and the integration of crop–livestock production systems. The authors conclude by discussing the challenges of inadequate transportation infrastructure and how current investment in constructing new ports and railroads is expected to address this challenge.

Second, Durand-Morat explores production potential and hurdles in the agricultural sectors of Argentina, Uruguay, and Paraguay, which are important producers and exporters of oilseeds, cereals, and meat. Production growth in this region is attributable to area expansion and productivity gains due to the widespread use of improved seed varieties and adoption of conservation tillage. In Argentina, agricultural growth has been driven mainly by an expansion of the agricultural frontier, but political and economic instability in the last several years has stifled Argentina’s growth potential. In contrast, political stability, investment, and openness to trade have stimulated growth in the agricultural sectors of Paraguay and Uruguay. The production of soybeans and rice in this region is expected to continue to increase over the next decade, consolidating the countries as important world suppliers of these commodities. Oilseed production yields in some areas of Paraguay and Uruguay remain lower than those in Argentina and Brazil, an area for potential improvement. Durand-Morat also discusses the latencies of Argentina, Uruguay, and Paraguay and the conditions needed for them to realize their full potential. Some of the challenges discussed in the paper include high export taxes (Argentina) and the need to invest in infrastructure to facilitate transportation logistics and reduce the cost of doing business in the region.

Third, Canales, Andrango, and Williams review the agricultural and trade sector in Mexico, emphasizing products with high trade flows to the United States. They explore the growth in the specialty crop sector, which has been mainly driven by an increase in crop area and yield improvements. Within the specialty crop sector, the authors first elaborate on the increase in protected production structures (greenhouses, hoop houses, and shade structures), which are partly subsidized by the Mexican government and private investment. Production under protected agriculture is predominantly shipped to export markets. Second, they explore Mexico’s capacity to increase their relevance in the organic sector. The authors argue that production and exports of high-value crops, such as avocados, tomatoes, and berries are expected to increase. Further, Mexico is expected to retain its place as one of the top world suppliers of specialty crops. Export diversification into other Asian and European markets is a possibility given the emergence of new trade agreements. Finally, the authors analyze some of the challenges for the Mexican agricultural sector. Their most recent challenge relates to the uncertainty regarding the new Mexican administration policies, which could hold back investment in the most productive agricultural subsectors of the country.

Fourth, Malaga, Avila-Santamaria, and Carpio assess the agricultural output growth and trade flows in Ecuador, Colombia, Peru, Bolivia, and Chile. Climate heterogeneity in this region has allowed these countries to produce a variety of temperate and tropical crops for export markets (e.g., grapes, blueberries, flowers, avocados, cacao). Quinoa, which has gained considerable popularity in the United States over the last decade, is grown in the Andean region. The authors note the significant expansion of irrigated land planted and exports of avocado in the region, primarily from Peru. Peru and Chile have taken advantage of the counter-seasonal production patterns for

crops such as grapes, apples, and berries and currently have a strong presence in U.S. markets. The authors conclude by discussing new opportunities for trade relationships and the need for infrastructure improvements, especially in the northern countries of the region.

Finally, Peguero, Sandoval, and Zapata review the agricultural sector in Central America and the Caribbean (CAC). While smaller in size compared to other South American regions, CAC is important in the production and exports of high-value crops, including fresh fruits and vegetables, cocoa, and coffee. Due to its proximity, the United States is the main destination market to CAC exports. As world demand for tropical fruit continues to increase, the region will continue to experience significant growth in tropical crops such as mango, pineapple, papaya, melon, and cocoa. Agricultural growth in the region has been driven by large productivity gains for many fruit and vegetables. However, traditional export crops such as coffee, bananas, sugarcane, and melons have experienced only limited growth. The authors conclude that research and extension, access to credit, crop insurance, and infrastructure investments are greatly needed to propel growth in the agricultural sector of CAC.

For More Information

Ferrier, P.M., and C. Zhen. 2017. "The Role of Income in Explaining the Shift from Preserved to Fresh Vegetable Purchases." *Journal of Agricultural and Resource Economics* 42(3): 329–349

Kotilainen, L., R. Rajalahti, C. Ragasa, and E. Pehu. 2006. "Health Enhancing Foods. Opportunities for Strengthening the Sector in Developing Countries." Agriculture and Rural Development Discussion Paper 30. Washington, DC: World Bank.

Liu, R.H. 2013. "Health-Promoting Components of Fruits and Vegetables in the Diet." *Advances in Nutrition* 4(3): 384S–92S.

Muhammad, A., and C. Valdes. 2019. "Export Tax Reform and the Competitiveness of Imported Soybeans in China." *Journal of Agricultural and Applied Economics* 51(3): 511–525.

Palma, M.A., L.A. Ribera, and D. Bessler. 2013. "Implications of U.S. Trade Agreements and U.S. Nutrition Policies for Produce Production, Demand, and Trade." *Journal of Agricultural and Applied Economics* 45(3): 465–448.

Palma, M.A., L.A. Ribera, and R.D. Knutson. 2016. "The Era of the Functional Consumer." *Journal of Food Products Marketing* 22(5): 555–570.

O'Hara, J.K., B.G. Narayanan, and K. Mulik. 2018. "Impacts of Hypothetical Fruit and Vegetable Consumption Changes in North America." *International Journal of Food and Agricultural Economics* 6(1): 55–72.

Regmi, A., and M. Gehlhar. 2001. "Consumer Preferences and Concerns Shape Global Food Trade." *Food Review* 24(3): 2–8.

Author Information

Elizabeth Canales (Elizabeth.canales@msstate.edu) is Assistant Professor, Department of Agricultural Economics, Mississippi State University, Mississippi State, MS.

Marco Palma (mapalma@tamu.edu) is Professor, Department of Agricultural Economics, Texas A&M University, College Station, TX.

©1999–2019 CHOICES. All rights reserved. Articles may be reproduced or electronically distributed as long as attribution to Choices and the Agricultural & Applied Economics Association is maintained. Choices subscriptions are free and can be obtained through <http://www.choicesmagazine.org>.