

S1-273**PRICE ANALYSES OF THE BRAZILIAN CITRUS SUPPLY CHAIN**

Silva AF, Barros GSC & Boteon M

UFG, Goiás, Brazil; Escola Superior de Agricultura 'Luiz de Queiroz', Universidade de São Paulo (ESALQ/USP), Piracicaba, SP, Brazil; e-mail: adrianaufv@hotmail.com

The Brazilian citrus chain is comprised by an upstream farm sector made up of numerous heterogeneous (by size and technology) farm units, serviced by input suppliers and a downstream segment consisting of a small number of processing industries. This unbalanced situation has generated frequent conflicts between growers and processors. Our study examines the behavior of citrus pricing along the Brazilian citrus sector's supply chain focusing on the relationship between international orange juice prices and domestic orange fruit prices and asymmetry in the transmission of these prices. The adopted methodology was based on cointegration analysis using the Johansen method (1988). Monthly spot market prices received by Brazilian orange growers between 1995 and 2013 were obtained from the Center for Advanced Studies in Applied Economics (CEPEA/USP). Monthly orange juice prices came from following sources: FoodNews agency, Brazilian Foreign Trade Secretariat (Secex) and New York Stock Exchange (NY). Results indicated that the price of orange fruit is fundamentally linked to the price of its juice, whatever data source is considered for testing and that long term international juice prices are proportionally transmitted to farmers. Evidence was found indicating that there is asymmetry of price transmission within the Brazilian orange sector, with juice price increases being transmitted to the farmer in smaller proportions than juice price decreases.

Financial support: FAESP.

Keywords: orange prices; juice prices; cointegration.

S1-307**CHARACTERIZATION OF CITRUS FARMS PRODUCTION SYSTEMS USED IN RIO GRANDE DO SUL, BRAZIL**

Sulzbach M, Oliveira RP, Waquil PD, Girardi EA, Gonzatto MP & Schwarz SF

Programa de Pós-Graduação em Fitotecnia, Faculdade de Agronomia, Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil; Embrapa Clima Temperado, Pelotas, RS e Mandioca e Fruticultura, Cruz das Almas, Ba, Brazil; e-mail: mpgonzatto@gmail.com

Brazil is the second world largest citrus producer and the State of Rio Grande do Sul is the sixth largest national producer, with about 570 thousand tons of citrus fruits in 2013. The state's citrus chain has different characteristics, consisting mostly of small family-based farms. This study aimed to diagnose the production system used in RS, through a structured questionnaire composed of 18

questions to 163 growers, residents in 35 locations in the RS. The selected locations have the citrus industry as an important activity for the local economy and the number of interviewed farmers varied according to the existing cultivated area in each. The interviewed farmers in each city were selected by non-probability sampling and convenience and the information obtained was planned, generating quantitative and qualitative data. There were features prevalent in the visited farms, such as aging of the rural population, low level of education of growers, mainly family labor employment and concern about the shortage of work observed in rural areas. However, they presented long experience in the citrus activity and obtain good yields, similar to the average recorded in the State.

Financial support: CAPES and CNPq.

Keywords: citriculture; diagnosis; family farming.

S1-353**CITRUS CULTIVARS – THEIR LINEAGE AND NOMENCLATURE**

Barry GH

XLnT Citrus, South Africa; e-mail: ghbarry@gmail.com

Agricultural quality standards (AQSS) are necessary to ensure that fresh produce complies with minimum quality standards. Among the various components of AQSS, includes the labelling of citrus produce at the point of packing and distribution. These quality standards should help to facilitate international trade, encourage high-quality production and protect consumer interests. However, universal or global AQSS should be technically correct, yet not over-restrictive. Whereas, at final point of purchase, e.g. retailer or supermarket, can impose more restrictive quality requirements vs. wholesale markets being less restrictive and country or regional standards would differ according to local customs and traditions. AQSS should be technically correct and clear and not allow mis-representation, e.g. don't want to sell a mandarin hybrid as a Clementine, but still to account for generic names, hybrids, synonyms and trade names. How to ensure labelling regulations are appropriate and correct? An understanding of the lineage of citrus cultivars provides insights into the correct nomenclature to be used when labelling for exports and trade: the citrus "family tree", genetic classification, horticultural groups and the species concept. The lineage of *Citrus* has become relatively easy to trace (thanks to modern molecular biology techniques), but due to complexities in the "species concept" in the *Citrus* genus, the correct nomenclature of *Citrus* is easily confused. In this presentation an attempt is made to explain the background to *Citrus* species and their lineage from ancient citrus species and cultivars to domestic species and cultivars produced and traded commercially in the current era.

Keywords: cultivars; marking requirements; labelling.