



XXV Congresso de Iniciação Científica da Unicamp

October 18 to 20 Campinas | Brazil



2017



CHARACTERIZATION OF THE STATE OF SÃO PAULO FOR SUGARCANE-LIVESTOCK INTEGRATION

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Abstract

The sugarcane-livestock integration happens through the use of subproducts for bovine feeding and intensification of pastures for freeing land for sugarcane production. However, it is only viable when sugarcane-alcohol mills and cattle production are closely located. Thus, this research aimed to analyze the State's potential to accomplish that integration. And it has been found, from the data collected from literature, that there are regions in the State which have the potential to accomplish that integration.

Key words:

Integration, livestock, sugarcane.

Introduction

Brazil is the world's biggest sugarcane producer and it has the 2nd biggest bovine herd in the world, with about 213 million head of cattle in 168 million hectares. The Brazilian livestock is the biggest greenhouse gas emitting agricultural activity in the country. The integration between the sugarcane-alcohol chain and the cattle production from the use of subproducts from ethanol production for bovine feeding allows for the intensification of pastures and the freeing of land for sugarcane production. Besides economical benefits, it also offers environmental benefits, since it makes it possible for the animal to reach their slaughter weight faster than in the conventional system, decreasing the enteric emissions throughout the animal's life.

However, that integration is only viable and successful when the cattle's properties are close to the ethanol plants, with a limiting distance of 50 km, decreasing the cost of transport, storage, and others.

Therefore, for the sugarcane ethanol and livestock integration system to prosper, it is necessary to know the potential that the State offers, from the characterization of plants and cattle production. Thus, the goal of this research is to characterize the location of sugarcane-alcohol mills and the cattle production in the State of São Paulo and, thus, to identify areas with integration potential.

Results and Discussion

For the characterization, SAPCANA (Sugarcane Production Monitoring System) data were analyzed, in order to determine the quantity of manufacturing units producing sugarcane and alcohol in the State, from the Statistics of São Paulo's production of the Institute of Agricultural Economics (IEA), in order to collect information about the quantity of beef and dairy cattle livestock, as well as from the sugarcane production for industry, among other literatures.

The acquired data were divided by EDA (Agricultural Defense Office), which are regional units of the Agricultural Defense Coordination (CDA), which is a public administration organ of the Government of the State of São Paulo.

The integration potential was based on the viable radius between mill and cattle production, determined at 50 km, according to real integration cases.

So, by creating spreadsheets and determining the limiting distance, it was possible to characterize the sugarcane production, the sugarcane-alcohol mills, and the cattle production in the State of São Paulo. Where, it was obtained that from São Paulo's sugarcane production, 20.76% are ethanol producing plants, 3.77% produce sugar, 75.47% have mixed production, with a total of 159 plants. Besides, the sugarcane production for industry in the State is about 438,595,045.40 tons. From the characterization of the cattle production, it was obtained that 51.56% of the cattle culture livestock are for slaughter, 8.27% are for dairy, 40.17% are mixed, with a total of 11,176,541 livestock.

Conclusions

There are 130 municipalities which have sugarcane-alcohol mills in the State of São Paulo, and in all the EDA, have livestock, so making the integration viable. However, there are regions in the State which have a greater potential to accomplish the sugarcane-cattle integration, highlighting the regions located in the west and northwest of the State, close to the EDA of Presidente Venceslau, General Salgado, São José do Rio Preto, Andradina, among others.

Acknowledgement

I acknowledge professor Juliana Aparecida Fracarolli, and the M.A. student Nariê Rinke Dias de Souza for all the assistance, patience, and dedication throughout the research.

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MAPA, Ministério da Agricultura, Pecuária e Abastecimento. SAPCANA, Sistema de Acompanhamento de Produção Canavieira. Disponível em:

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