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SCIENCE IN AGRICULTURE PAULISTA: THE GOOD EXAMPLE

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The developed countries present in the leadership of the economy respectively the services and trade sectors. It's a natural tendency of modern economies according to their complexity, diversity, urbanization and the improvement of *per capita* income of these societies.

However, this new condition does not mean that agriculture ceased to be important, because these societies, even though modern, not live without food, raw materials, and incorporate increasingly bioenergy in its energy matrix. In the 21st century the attendance of such demands providing producers and economic success combined with the environmental preservation depends on continuing science implicitly.

In the urban world, every day the population seeks healthy food — fruits, vegetables, cereals, meats, beverages – cotton garments, biofuels, efficient packaging and many other products that come from the field, despite the sophistication that make industrial process.

The irreplaceable contribution of agriculture to society to offer quality products, increasing productivity and preserving the environment, depends of the science. The Brazil understood this concept mainly from the Decade of 1970 with the creation of the Empresa Brasileira de Pesquisa Agropecuária (Embrapa), but the State of Sao Paulo by the end of the 19th century, 1887, started the insertion of science in its agriculture through the Instituto Agrônômico de Campinas (IAC).

That date to the present day the State of São Paulo has established six research institutes linked to the farming – Instituto Agrônômico, Instituto Biológico, Instituto de Economia Agrícola, Instituto de Pesca, Instituto de Tecnologia de Alimentos Instituto de Zootecnia – and more research Poles 14 strategically placed in regions of the State

doing research and innovation generating productivity and quality of life, boost the economy and promoting the sustainability of production. This whole system is coordinated by the Agência Paulista de Tecnologia dos Agronegócios (APTA), subordinated to Secretaria de Agricultura e Abastecimento.

The scientific structure of Agriculture of São Paulo is quite comprehensive involving crops – food and raw materials – plant and animal health, market niches, food biofortificados, industrial processes, occupational health and safety, technology transfer and training of people, important information for producers, and international partnerships. From 1970 to 2012 were generated 45 important technologies with social and environmental impact. The economic impact for the period 2010 to 2013 was R\$ 12.1 billion, and the annual economic impact of R\$ 3.1 billion. The return to society is of R\$ 11.80 for every R\$ 1.00 invested in agricultural research in the State of São Paulo in Brazil.

The five main groups of agribusiness exports paulista in 2013 were: alcohol, complex US\$ 9.22 billion, with exports of ethanol representing 17.7% of this total; with meat US\$ 2.62 billion, led by beef with 80.6%; the juices totaled US\$ 2.16 billion of which 99.2% are from orange; forest products totaled US\$ 1.83 billion; and the soybean complex with US\$ 1.4 billion.

On the other aspect, in relation to the Brazilian agribusiness exports of São Paulo, in 2013, accounted for almost 21% with the following participation: 88% of groups of juices; 81% of dairy products; 69% of miscellaneous food products; 67% of the sugar-energy complex; 66% live plants and fruit products; 50% of other products of animal origin; 50% of other products of plant origin; 49% of oleaginous products; 34% of animal feed; 30% of apiculture products (APTA, 2014). This year, in June, the agribusiness of Sao Paulo came back to lead the Brazilian exports of industry with \$ 1.6 billion, 16.6% of the exported total (MAP, 2014)

In all areas in which there are highlight of paulista performance, there is the support offered by technological packages generated by the research units, and more, São Paulo's benchmark survey of sugarcane, citrus, meat, apiculture products, eucalyptus and various grains.

The paulista 34 years ago good example has been followed by the State of Mato Grosso, to put science as an indispensable factor for the development of its agriculture. Not having agronomic research institution in its territory could take advantage of the technologies generated by Embrapa Cerrado biomes and the Amazon. However, in 1993, 23 visionaries and seed producers of soybeans, mostly coming from the southern region in search of better opportunities in Central Brazil,

have teamed up to create a research company focused on solving the problems of its agriculture. This initiative was born to support Agricultural Research Foundation of Mato Grosso (Mato Grosso Foundation), Initially the work occurred in partnership with Embrapa. After seven years the Foundation MT became independent, being created a company to Improve Tropical & Genetics (TMG) (Fundação MT, 2014). In 2009 Embrapa installed its research unit in Mato Grosso. It is based at Agrossilvipastoril Embrapa municipality of Sinop, Northern State with the task of generating technologies to the Amazon and Cerrado biomes (Embrapa, 2014).

The science, in Sao Paulo, has demonstrated in Mato Grosso which is an indispensable ally to break away from the "ties" that hinder development. In May 2014, Mato Grosso led Brazilian agribusiness exports, accounting for 17.8% of this agenda with \$ 1.7 billion leaving Sao Paulo in second place (MAP, 2014). By the way this dispute has been sharp lately. The municipality of smile is the biggest producer of soybeans from Brazil, and in April this year there was opened the first refrigerator to national aquaculture production – fish produced in captivity – to meet the local production of 10,000 tons/year (SORRISO, 2014).

Stay with the quest. What purpose has prevented the Northeast and North regions to follow this example? Regions where a modern agriculture will bring effective and necessary contribution to development. The Brazil is today the world leader in tropical agronomic research. Why these regions do not follow the good examples? Answers must be given by their respective companies.

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