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REDE ILPF ASSOCIATION ACTIONS

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ABSTRACT
Brazilian agriculture has been developing a lot in the last 40 years. Science has evolved, rural producers have also evolved and the emergence of new ways of producing sustainable agriculture gains prominence. In this context, the Crop-Livestock-Forest Integration has been gaining prominence for the increase of productivity taking into account the aspects of sustainable development, at the same time that it solves the problem of degraded pastures in Brazil. The Rede ILPF Association is a public-private partnership, formed by Embrapa, Bradesco, Ceptis, Cocamar, John Deere, SOESP and Syngenta. Its main mission is to promote the adoption of the Crop-Livestock-Forest Integration technology for the benefit of society. The Rede ILPF is a Think Tank that works for the sustainable development of agriculture, starting from the promotion of research projects and technology transfer, training of technicians, alignment of the private sector to the demands of producers, certification of properties, and development of financial mechanisms. With these activities, the Rede ILPF aims to subsidize the elaboration of public policies and international negotiations, promote the opening of new differentiated markets and disseminate good production practices to consumers.
Key words: Public-private partnership; crop-livestock-forest integration; agricultural sustainability.

INTRODUTION: A EVOLUÇÃO DA AGRICULTURA NO BRASIL

The evolution of agriculture in Brazil in the last 50 years is not a matter of chance, it is the result of a lot of dedication, science, technology, and working together.

A major milestone was the creation of Embrapa in 1973 and, in the same period, many rural producers in Brazil started to work with the No-Tillage System. The adhesion of this system in Brazil was extremely important, as it is a tropical country with a high rate of precipitation. With the No-Tillage System, it was possible to preserve and conserve agricultural soils from erosion. In addition, the No-Tillage System was responsible for mitigating emissions of 1.5 tons of CO2e/ha/year, being a system that in addition to conserving soil and water, is also a system that can bring benefits to climate change. In comparison, conventional planting systems are responsible for the emission of an average of 0.5 tons of CO2e/ha/year.

Currently, in Brazil, we have 60% of the planting areas with No-Tillage Systems, with vegetation cover, protecting the soil, water and sequestering carbon, it is important to highlight the role of rural producers in adopting this conservation system.

In the 1990s, what was called “safrinha” started, which started to reach productivity so high that we no longer call “safrinha” but “the second crop”. An example of this is the production of corn, which in the second harvest, corresponds to two-thirds of the total production. Or even the production of cotton, which is 100% produced in the second harvest. This second crop system is also very important concerning climate change, mitigating emissions of an average of 0.5 tonnes of CO2e/ha/year.

Over the years and technological developments in rural properties, also in the 1990s, the movement of the Integrated Crop-Livestock-Forest (ICLF) grew.

Our Great Innovation: The Integrated Crop-Livestock-Forest

The Integrated Crop-Livestock-Forest (ICLF) is a technological package of management and techniques that integrates different components of agricultural, livestock, and forest production in the same area, in a consorted, rotated, or in succession way, in which a component promotes effects on others and vice versa. The ICLF was idealized to recover degraded pastures and to avoid deforestation. Not only, but the ICLF is also one of the main technologies adopted in the Low Carbon Emission Plan in Agriculture (ABC Plan) to mitigate greenhouse gas (GHG) emissions in agriculture, being able to mitigate up to 5.0 tons of CO2e/ha/year.

Also, the ICLF is a technology that promotes sustainable development, involving social, environmental, and economic complexities, ensuring several benefits, such as nutrient cycling, soil conservation, animal welfare, biodiversity maintenance, greenhouse gas mitigation, and productive efficiency, which consequently, ensures an increase in producer income and job creation; very important socio-economic benefits generated by the ICLF.

Due to its countless environmental, social, and economic advantages, efforts have been made in recent years for the adoption and implementation of the ICLF in Brazil, involving cooperation between public, private, and third sector institutions, through research and development, transfer of technology, investments, training, and innovation.

Embrapa (Brazilian Agricultural Research Corporation) was the pioneer institution in the diffusion and implementation of the ICLF in degraded areas and it has been standing out in the national and international scenario for the development of sustainable agricultural production practices.

The Rede ILPF Association

In this context, a Public-Private Partnership (PPP) was created between Embrapa and 3 other companies in 2012. The first format of this PPP was a project financed by the companies and executed by Embrapa. The main objective of this project was to disclose the ICLF throughout the country and expand the adoption of the technology. This partnership was called "Rede de Fomento ILPF" (which means ICLF promotion network). With the evolution of the work and the success obtained, it was sought to innovate the management model of this partnership. Thereby, in 2018, it went from Rede de Fomento ILPF to Rede ILPF Association, having as associates the private companies Bradesco, Ceptis, John Deere, Soesp, Syngenta; the Cocamar cooperative; and the public company Embrapa.

Rede ILPF has the mission to Promote and encourage the adoption of ICLF for the benefit of Brazilian society, as part of an effort, aiming at the sustainable intensification of Brazilian agriculture. The Association values revolve around commitment, cooperation, innovation, transparency and belief in a better world. The Rede ILPF has the vision of becoming the biggest reference in sustainable agricultural technology, being able to contribute to the environmental preservation and food security in a changing world.

To achieve the vision and develop continuously, the Association focuses its efforts on technology transfer, training in technical assistance, and communication. Also, it has been dedicated to internationalization, adding value through certification and innovation, aiming to raise resources in international funds.

Current Scenario and Trends

With all these efforts and partnerships involving rural producers, science, technology, the private sector, and the public sector, today we have an area of 17 million ha of ILPF in Brazil. In addition, we are increasingly joining efforts to reach the target set for the year 2030, of 35 million ha.

The productivity benefits in these areas with ILPF have been significant, such as the best thermal comfort for the animal, as the presence of trees reduces the animals' body temperature by at least 3%; and the production of better-quality fodder. All this combined with other diverse advances in the agricultural sector, such as genetically modified organisms, investment programs in fleet renewal, and improvement of agricultural machinery, and with the movement of producers in search of greater productivity, the agricultural scenario has been strongly changing. from the country. Brazil is responsible for the production of 275 million grains and approximately another 200 million head of cattle, and in the coming years, we are seeing a stronger movement in agricultural production, which respects the environment and is aligned with sustainable development.

Even in the context of the pandemic, in which we have a dramatic economic and social scenario around the world, the agricultural sector is managing to sustain Brazil's GDP and we are experiencing increasing agricultural production. This is all possible because of the strong investment by producers in wanting to improve their productivity, whether by improving their equipment, through processing and storage of production, investment in solar energy, irrigation, and more advanced technologies in the field.

Another important aspect to highlight, as an accelerator in the process of sustainable intensification of agriculture in Brazil, is the participation of young people in the field and agricultural activities. Many young people who left rural areas to study or seek better employment conditions in the urban environment, with the pandemic, are gradually returning to rural areas and becoming interested in the agricultural activities carried out by their family or by their region of origin. These young people are bringing more innovation to the field, a mentality of greater connectivity, greater use of technology, and greater search for innovation. Concerning the United States and the European Union, Brazil has the lowest average age of rural producers, with an average age of 45 years.

Concerning the connectivity and the digital influence on agricultural activities, Brazil is also ahead of the United States, with 12% more rural producers connected and entering the digital world.

In addition, the logistics for the outflow of agricultural production in Brazil have changed. In this year 2021, for the first time, Brazil is exporting 50% of the grains produced by the ports of Arco Norte Brasileiro, representing a 30% reduction in freight costs.

All this history presented, shows the great evolution of the Brazilian agricultural sector and shows our total capacity to innovate and improve agricultural productivity, even more, being concerned with sustainable development, combined with important innovations for the carbon market in the sector. With all these new trends on and off the property, the Brazilian agricultural sector will have the possibility to increase its production without advancing to areas of native vegetation and becoming an important country for world food security.