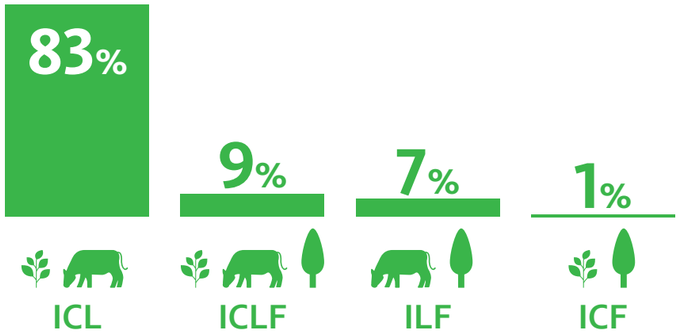
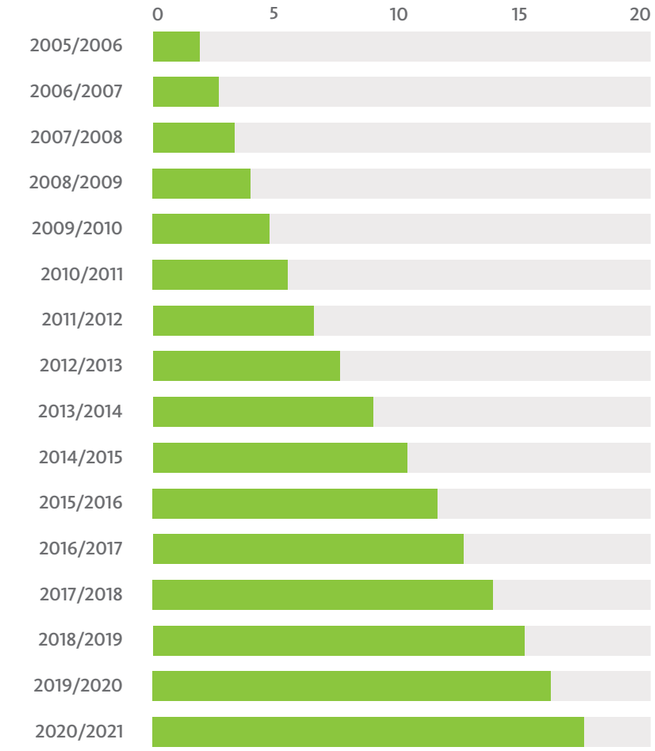
CONFIGURATIONS

Among the four possible production configurations, crop-livestock integration is the most adopted by producers.



GROWING TECHNOLOGY

From 2015/2016 crop season to 2020/2021, there was an estimated increase of 52% in **ICLF** areas in Brazil. The graph below shows the expansion of this productive system.



Source: Polidoro *et al.* (2020)

COMMITMENTS

The goal set by the Low-Carbon Agriculture Plan (Plano de Agricultura de Baixa Emissão de Carbono – ABC Plan) in 2009 was to increase the area with **ICLF** in Brazil by four million hectares by 2020. According to the preliminary estimate of the ABC Platform (a multi-institutional group created to monitor the reduction of greenhouse gas emissions), between 2010 and 2015 the increase of 5.96 million hectares of **ICLF** was responsible for the sequestration of 21.8 million tons of CO_2 eq.

The ratification of the Paris Agreement on Climate change by the Brazilian Government in 2016 increased by 5 million hectares the original goal of farmland with **ICLF** systems proposed in the ABC Plan, with a total goal of 9 million hectares by 2030.

ICLF Network Associates

Embrapa · bradesco · cocamar · John Deere · minerva foods · SOESP · suzano · syngenta · Timac AGRO

redeilpf.org.br

Photos: Gabriel Faria

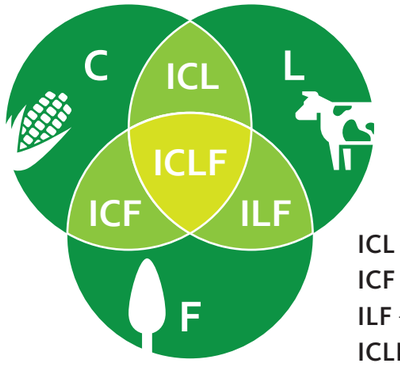
ICLFnetwork

WHAT IS ICLF

Integrated crop-livestock-forest (**ICLF**) is an agricultural production strategy that integrates these different productive systems within the same area. It can be implemented using mixed, rotating, or successive crops so that the interaction between each component generates mutual benefits.

ICLF can be implemented in different ways, with a wide range of crops and a variety of animal species. It can be adapted to regional characteristics, climatic conditions, local markets and farmer's profile, and can be adopted by small, medium and large producers.

ICLF can be used in different configurations, combining two or three components in one production system:



ICL - Mixed farming
ICF - Agroforestry
ILF - Livestock-forestry
ICLF - Agro-livestock-forestry

THE ICLF NETWORK

The **ICLF Network** Association is a public-private partnership formed by Embrapa, the Cocamar cooperative and the companies Bradesco, John Deere, Minerva Foods, Soesp, Suzano, Syngenta and Timac Agro. It aims to accelerate a wide adoption of the integrated crop-livestock-forest (**ICLF**) technologies by rural producers as part of an effort aimed at the sustainable intensification of Brazilian agriculture.

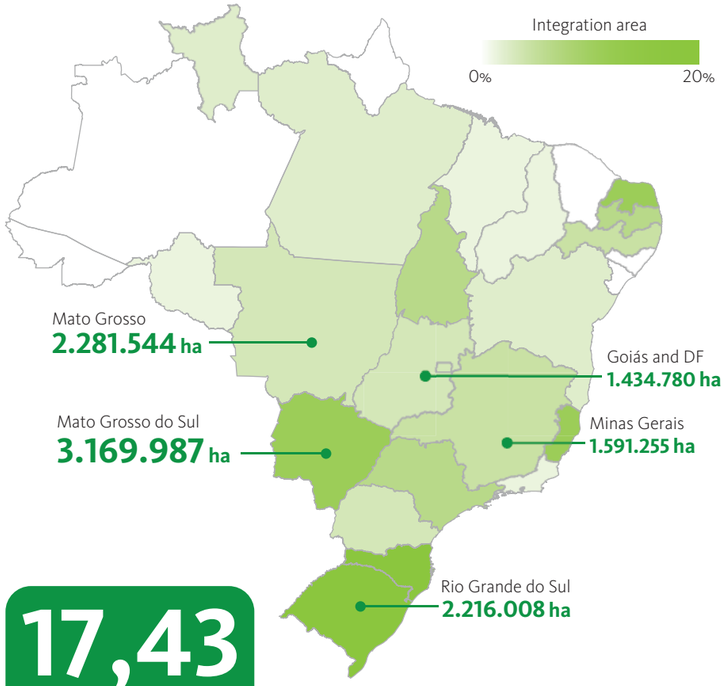
Started in 2012, the **Network**, which is co-financed by private companies and Embrapa, supports a network of 16 Technological Reference Units and 12 Technological Reference and Research Units distributed in all Brazilian biomes and involves the participation of 28 Embrapa Research Units.

BENEFITS

- Optimization and intensification of soil nutrient cycling
- Biodiversity conservation and sustainable agriculture
- Increase in net income allowing greater capitalization for the producer
- Improvement of animal welfare due to greater thermal comfort
- Improvement of the quality and conservation of the soil's productive characteristics
- Increased production of grains, meat, milk, timber, and non-timber products from the same area
- Applicable to farms of all sizes and profiles
- Reduction of labor seasonality and rural exodus
- Greater efficiency in the use of resources and increased energy balance
- Greater optimization of processes and production factors
- Creation of direct and indirect jobs
- Improvement of the public image of farmers within the society
- Pressure release, by creating new areas of native vegetation
- CO_2 Mitigation of greenhouse gas emmissions
- Economic stability, by reducing risk and uncertainty through production diversification

ICLF IN BRAZIL

Research commissioned by the **ICLF** Development Network and carried out by the Kleffmann Group during the 2015/2016 harvest estimated that in Brazil integrated agricultural production systems are implemented in 11,468,124 hectares (ha) of land.



17,43
millions of hectares is the estimated area with ICLF in Brazil

*Total surface of Brazil: 851,577,000 ha