

Sustainable Agricultural Aviation Certification (CAS)

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Evolution of the agricultural aviation in Brazil

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Sources: Agronautas and SINDAG

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30% of the Brazilian agricultural aircraft are private;
- Agricultural aviation accounts for 25% of the total area of crops on which pesticides are applied;
- More than 70 million hectares are treated per year by aircrafts.

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- Agricultural aviation is under pressure, because of environment-related incidents, especially those involving cases of spray drift;
- There is a negative impact spread by the media;
- There are conflicts between the agricultural aviation sector and environmental groups;
- **Those groups seek to impose restrictions to the market for aerial application in Brazil.**

The certification program

Aerial application certification:

- In response to the environmental groups that seek to impose restrictions to the aerial application in Brazil, the agricultural aviation has now a certification program;
- The CAS (Sustainable Agricultural Aviation Certification), was created to make sure the operators act in accordance with **strict criteria in relation to sustainability and environmental responsibility.**



CAS



How it works



CAS is a voluntary certification system

- Managed by FEPAF: a nonprofit organization;
- The Universities bear responsibility for operations: UNESP, UFLA e UFU;
- ANDEF (Brazilian Crop Protection Association) and SINDAG (Aerial Operators Union) give institutional support;

The CAS Program counts on a 100% private financing:

- Certification fees;
- Budget from ANDEF.



The primary focuses:

- Deepening the concept of responsibility and sustainability for crop protection applications by air;
- To improve spraying quality and **reducing the risks of environmental impact** from these activities.



Certification Steps



The CAS program is divided into steps (levels to be achieved). The levels of certification are:

CAS Level I: Operation Legal Certification:

- At this step, all documentation and legal operation aspects will be evaluated;
- It is a process for the issuance of a "Legal Compliance Certification";
- The objective is to certify the operator complies with existing laws and regulations.



CAS Level II: Company Technology Qualification Certification:

- This certification step is achieved when the participants have fulfilled a training course;
- The certification will be granted to participants who obtain satisfactory performance in the course:
"Technical quality and Environmental Responsibility in the aerial application"
(Good Practices for aerial application).



CAS Level III: Compliance Certification for Equipment, Facilities and Procedures:

- The operator will be certified according to spray equipment, facilities and procedures
(Compliance to Good Practices for aerial application);
- These items shall be inspected during technical visits to companies;
- There are minimum requirements related to:
 - Equipment
 - Spraying methods;
 - Management of the operations.

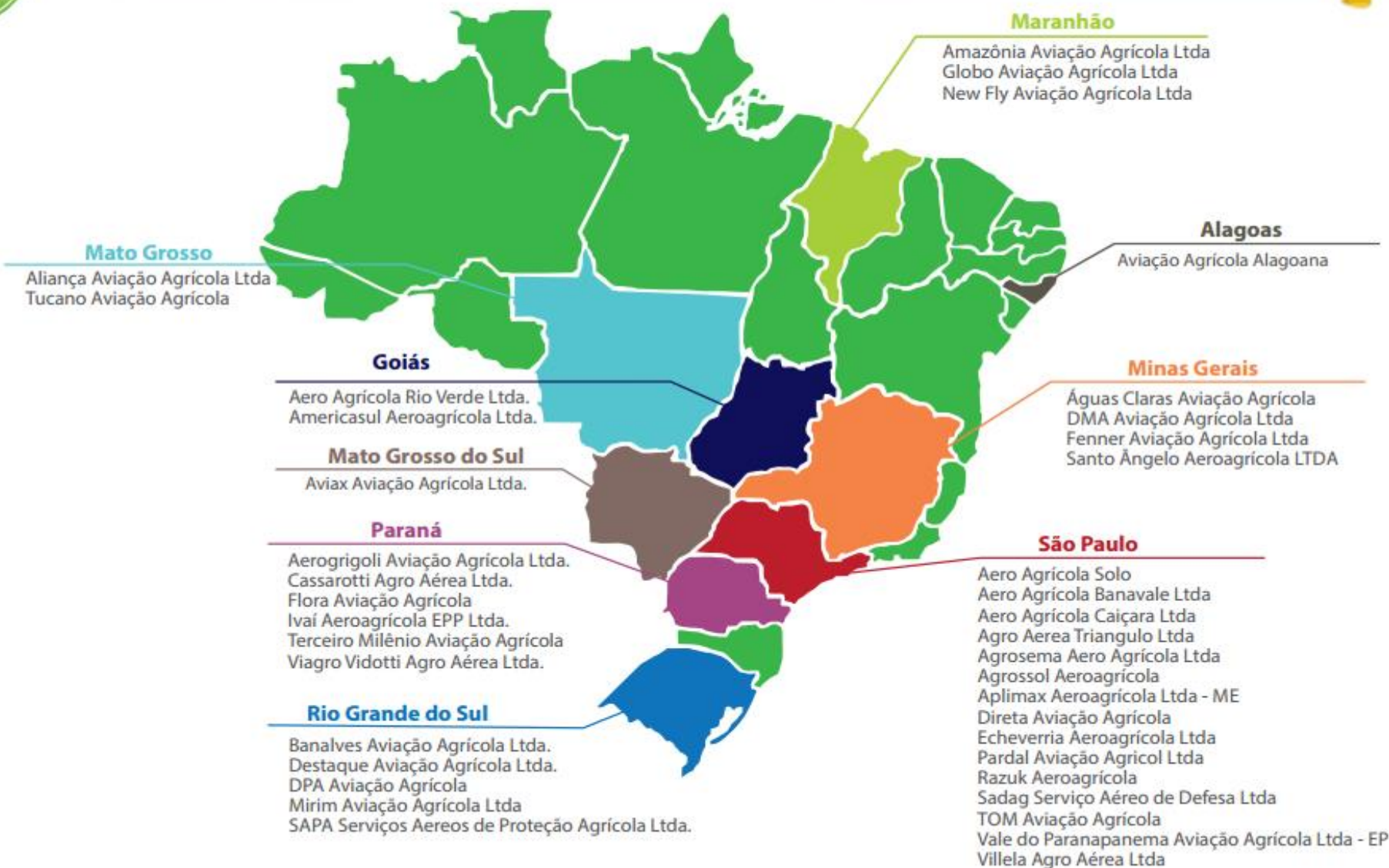


RESULTS (April, 2016)





Empresas Certificadas Nível I: 39



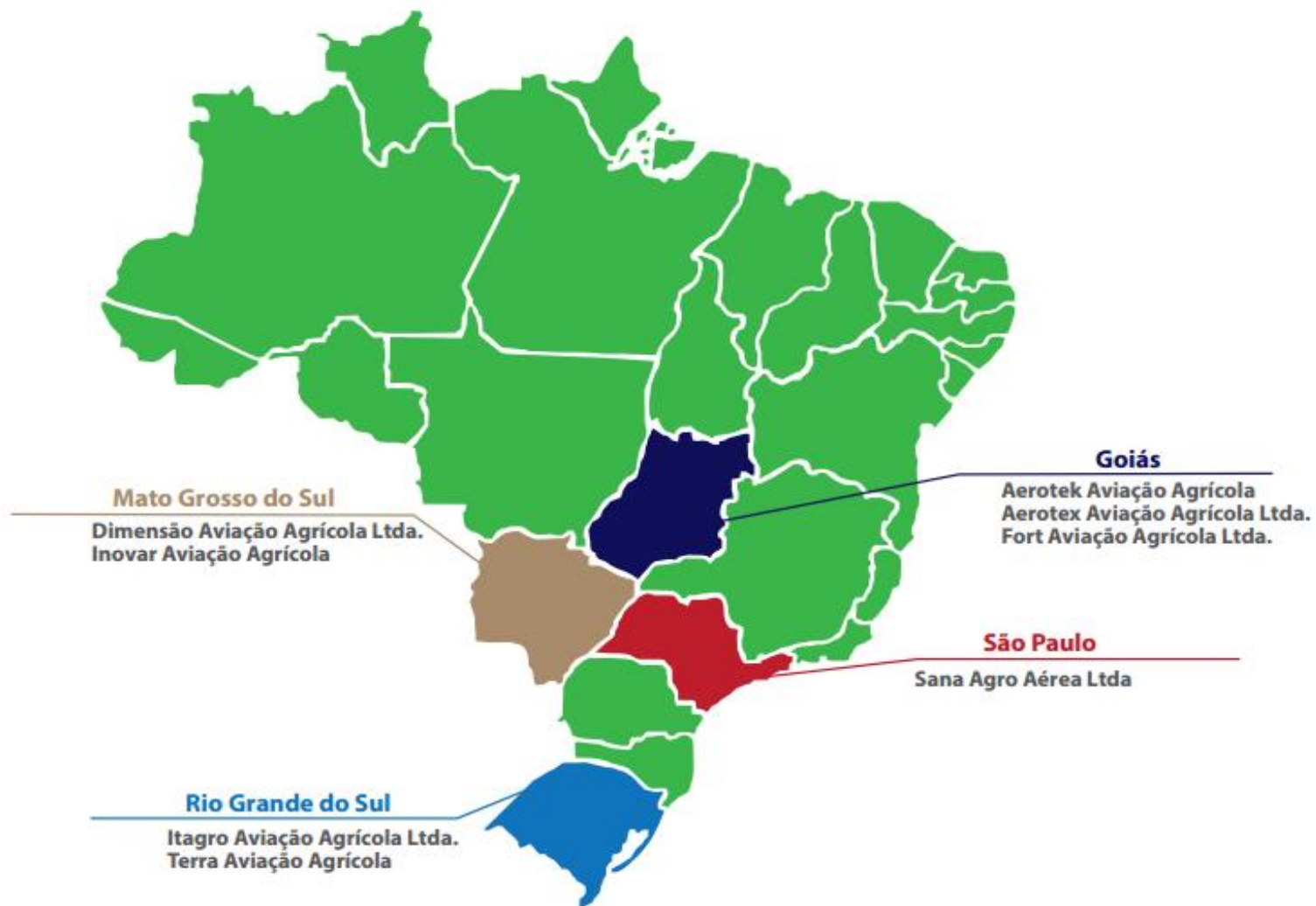


Empresas Certificadas Nível II: 40





Empresas Certificadas Nível III: 8



- **Brazil:** The CAS achieved 38% market share in 2 years (87 out 232 operators);
- The support from the sugar cane mills is very important;
- There is a higher market share on sugar cane areas:

SP (75%)

GO (60%).

State	Operators
SP	26
GO	12
RS	12
MS	8
MT	7
PR	7
MG	6
MA	3
AL	1
RR	1
TO	1



Aerial application certification:

- This is an important reply to society;
- In the context of the good agricultural practices, the CAS is an important step towards agriculture sustainability;
- The CAS is a voluntary certification system and a private initiative;
- website: **www.cas-online.org.br**



Thank you!

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