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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- 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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- 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.
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 II: 40

**Mato Grosso**
- Agroer Aviação Agrícola Ltda
- Ferax Aviação Agrícola Ltda
- Garra Aviação Agrícola
- JM Aviação Agrícola
- Solag Sol e Lua Aviação Agrícola Ltda

**Goiás**
- Aerocéu Aviação Agrícola
- Centroat Agro Aéreo Ltda.
- Combate Aviação Agrícola Ltda-ME
- Mineiros Aviação Agrícola Ltda.
- Precisão Aviação Agrícola Ltda EPP
- Resgate Aviação Agrícola Ltda.
- Ságua Aviação Agrícola Ltda.

**Minas Gerais**
- Aviação Agrícola Antônio e Carmélia Stal-Serviço de Tratamento Aéreo a Lavouras

**Paraná**
- CEAL Aviação Agrícola Ltda

**Rio Grande do Sul**
- Aero Agrícola Rosariense
- Aero Agrícola Santa Terezinha
- Aero Agrícola Santos Dumont Ltda
- Arenhart Aviação Agrícola Ltda
- KL Aviação Agrícola Ltda-EPP
- Taim Aéreo Agrícola Ltda

**São Paulo**
- Aero Agrícola Chapadão Ltda.
- Aeronorpa- Aero Agrícola Norte Paraná Ltda
- Aeromaj Aviação Agrícola Ltda-EPP
- Aplitec Aero Agrícola Ltda
- Citrosuco S/A Agroindústria (operador privado)
- Garcia Aviação Agrícola
- IMAGEM Aviação Agrícola Ltda
- Pachu Aviação Agrícola
- Produtiva AeroAgrícola
- Rancharia Aviação Agrícola Ltda
- SAM Sociedade Aero Agrícola Mogiana Ltda
- Ultraer Aeroagricola Ltda-EPP
- VCM Aviação Agrícola Ltda
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:

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<th>State</th>
<th>Operators</th>
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<tr>
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SP (75%)  
GO (60%).
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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