Argentine Soy
Sustainable Production
Initiatives by AAPRESID
¿What is AAPRESID?

An NGO integrated by a network of Farmers (2,000 members), based on the interest in the conservation of their main resource, the soil, promoting the diffusion of a new sustainable agricultural paradigm, based on No Till Systems. Sharing, enthusiasm, generosity and knowledge as main values.

Argentine No-Till Farmer’s association
Our Mission

To Promote sustainable production systems for food, fiber and energy, through innovation, science and networked knowledge management.
Regional coverage of productive areas in Argentina

- 38 regional groups in Argentina and 1 in southern Brazil.
- They seek the exchange of information and knowledge.
- Create an atmosphere of exchange between Farmers and Technicians in the same area.
- Human, technical and economic development of the members.
- Regional references for political decision makers.
Own research programs

- 8 different agricultural eco-regions with Chacras.
- System designed for the development of agricultural technologies under particular contexts of farmers with the aim of transferring technology to different areas and to all partners.
International Initiatives

- Promotes the positioning of Conservation Agriculture System.
- Works for the export of know how and products under Sustainable Productive Systems.
- International Relationships with farmers around the globe.
- Positioning of Argentinian Productions.
No-Till (conservation agriculture)

Reduces soil erosion by 96%  
Reduces water evaporation by 70%

Reduce use of fossil fuels by more than 60%.  
Promotes carbon sequestration

Promotes greater biological activity and biodiversity  
Lower operating costs
If the apple is the earth
(51 billion hectares)
50,900,000,000 hectares

+ 80 % in AMERICA
(75 % South America)

Total agricultural area
(1.5 billion hectares ~ 3%)

Overview of global Spread of Conservation Agriculture,
On **World Soil Day**, AAPRESID was awarded the 2017 Glinka prize by FAO.
No-Till area in Argentina

Evolution of land under No-Till (millions of hectares)
Positive Impact
Nature Magazine: Argentina, world leader in the reduction of soil erosion

Fig. 4 Estimated soil loss reduced by conservation agriculture. The grey bars illustrate the estimated soil loss reduction (in percent) derived from the implementation of conservation agriculture (40 countries show the highest reduction values). The values refer to the model application for the year 2012 adjusted for the potential effect of conservation agriculture practices. Red dots indicate the national average of annual soil loss estimated in cropland (Mg ha$^{-1}$ yr$^{-1}$). The red error bars around the dots indicate the variation between the mean values of the conservation scenario, the baseline scenario (positive bar) and the maximum mitigation effect of the practices (negative bar). The dotted orange line shows the soil loss tolerance threshold ($T$ value—10 Mg ha$^{-1}$ yr$^{-1}$).
Argentina Production Zones
Sensitive zone for Deforestation

+/- 10% Soybean Production
Gran Chaco covers an approximate area of 675,000 km² in Argentina. It comprises the entire provinces of Chaco, Formosa, and Santiago del Estero and partially others.

Crushing capacity: 202,831 ton/day
Most important among South America

90% of Soybean Production close to POD and ports

Total Production Area: +/- 20 mil ha

Approximately 50% of Total Agricultural Land
Short distance Farm to Port + Conservation Agriculture

- 20 industrial plants with a very high joint processing capacity of 158,750 tn / day.
70,000 Soy Farmers
94% Small and Medium farms: 2,000 ha
6% Large farms: 4,445 ha

Approx 70% land under leasing

99.8% GMO

+/- 40% Protein

Capacity of grow different crops:
Wheat, Barley, Corn, Sorghum
among others

More than 80% of Services from
3rd party: Sowing, Harvesting,
spraying
3 Top Producer Countries

- Argentina: 55 mil.
- Brazil: 105 mil.
- United States: 106,9 mil.
Argentine Soy Markets

95% of total production Exported

39% Country Exports

USD 21,8 M

32% Soy Meal

18% Soy Grain

35% Soy Oil
SOY PRODUCTION VS LAND USE

<table>
<thead>
<tr>
<th>Year</th>
<th>Production (mil. Tons)</th>
<th>Land (mil. hectáreas)</th>
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<tbody>
<tr>
<td>2012/13</td>
<td>46,5</td>
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<td>2013/14</td>
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<td>2016/17</td>
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<td>2017/18</td>
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<td>17,7</td>
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<td>2018/19</td>
<td>53</td>
<td>17,9</td>
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</table>
Production 55 mil ton

Seeds 2.5 mil ton 5%

Industrialization 45 mil ton 82%

Soybean Export 7.5 mil ton 13%

Soy Meal Production 75%

Exportation 95%

Soybean Oil Production 19%

Exportation 58%

Biofuels Production 3 mil ton

Exportation 50%

Internal Consum 5%

Internal Consum 6%

Internal Consum 43%
Argentina Soybean Meal Exports

- Europe: 32%
- Others: 20%
- Vietnam: 14%
- Indonesia: 10%
- Latin America: 4%
- Egypt: 5%
- Asia: 5%
- Africa: 10%
- Others: 20%
Deforestation
What we are doing?
Total Argentina area soybean production & Argentine Gran Chaco area soybean

- Total Argentina area soybean
- Gran Chaco area soybean

<table>
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<td>Millions of hectares</td>
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<td>15.0</td>
<td>15.0</td>
<td>20.0</td>
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</table>
Total Soybean Argentina Production & Soybean from Argentine Gran Chaco

- Total soybean production Argentina
- Soybean production Argentine Gran Chaco

Millions of Tons

Years: 2007/08 to 2016/17
In December 2007, Law N° 26,331 for the environmental protection of native forests was sanctioned.

This law, which creates the National Program for the Protection of Native Forests, establishes the **obligatory for territorial ordering of native forests**, as well as the obligation to carry out environmental impact studies and public hearings to authorize Legal Deforestation.

Law No. 26,331 establishes in Article 6 that each jurisdiction **must carry out a Territorial Organization of Native Forests (OTBN)** existing in its territory through a participatory process, according to the Environmental Sustainability Criteria (CSA) establishing different conservation categories.
The National Forest Law establishes that the provinces must carry out the territorial organization of their native forests, through a participatory process, categorizing the possible uses for forest lands: from conservation to the possibility of transformation for agriculture, passing through the sustainable use of the forest.

**Category I (red):** Sectors of very high conservation value that should not be dismantled or used for extraction and that should be kept as a forest forever. It will include natural reserves and their surrounding areas, which have outstanding biological values, and/or sites that protect important watersheds (springs of rivers and streams).

**Category II (yellow):** Sectors of high or medium conservation value, which may be degraded but which, if restored, may have a high conservation value. These areas can not be dismantled, but may be subjected to the following uses: sustainable use, tourism, collection and scientific research.

**Category III (green):** Sectors of low conservation value that can be partially or completely transformed, with the previous realization of an Environmental Impact Assessment.
The inventory and territorial ordering carried out by the local application agencies have detected that there are still areas of forests or forests that can be legally deforested without environmental impact.

Since the enactment of the law on forests, the area of illegally deforested areas has decreased considerably.
The rural territory is the space in which society develops its primary activities and from which it obtains natural services and resources.

The integrating vision of the rural territory, capable of facilitating its understanding and its management, requires an articulation between the public and private sectors, a systemic approach and an explicit proposal of conflicts of interests and values and existing social divisions.

The Rural Territorial Organization is a political-technical-administrative process oriented to the organization, planning and management of the use and occupation of the territory, according to the biophysical, cultural, socioeconomic and political-institutional characteristics and restrictions.

This process must be based on explicit objectives and promote an intelligent and fair use of the territory, taking advantage of the opportunities, reducing the risks, making a sustainable use of the resources and distributing in a rational manner the costs and benefits generated.
Argentina has **33.2 million hectares of native forests and 1.2 million hectares of cultivated forests**, represented mainly by fast-growing exotic species.

The surface of implanted forests, concentrated mainly in the Mesopotamian, Pampean and Andean Patagonia regions, has been the result of a national policy of stimulation to afforestation that was implemented for more than 30 years and that was modified over time.
Environmental functions and goods are safeguarded in the landscape

Mobilize a multi-stakeholder platform to propose policy improvements that mitigate illegal deforestation and landscape management

Policy recommendations are adopted and enforced by Salta government

Advocate for an inclusive sector transformation and sustainable policies in Salta province
8 organizations engaged with potential to reach up to 7M has (of total 8.2M has) of “green” and “yellow” areas under sustainable management.

Change in Gov organizational culture to see producers as clients and themselves as service providers + sustain commitment beyond political changes.
1) Develop a common document analysing the current situation in each country (Arg, Bol, Bra, Py) and identifying common gaps and innovation points to reach common goals regarding:

- TRANSPARENCY
- GOVERNANCE
- TOOLS
- TRACEABILITY

2) Validate the document among partners, provide feedback and circulate among CINAM (Bra), ABT (Bol), Salta Secretary of Environment (Arg), SEAM and Infona (Py)
The profits of a farmer to produce a hectare of soybean are 120 Euros. *(AS AN EXAMPLE)*

In one hectare you can produce 3 tons of soybeans (average yield)

Are they willing to pay an extra 40 Euros for the farmer to *stop producing*, even if they comply with the legal requirements?
Best Cientific & Technology knowledge available

Local and applicable laws

Human rights and environmental International Agreements
The Sustainable System can be certified
Sustainable Agriculture Practices

No soil removal, No-Till, cover crops and live coverage

Crop rotation, of phytosanitary action modes and biotechnological events

Balanced nutrition of soil and crops

Responsible use of phytosanitary products

IPM: Integrated management of pests, weeds and diseases with the use of shelters
Efficient and responsible management of agrochemicals

A sustainable practice

Crop monitoring

A sustainable practice
Sustainable Social Practices

Responsible Labor Relations

Responsible Relationships with the Community
Sustainable Environmental Practices

- Responsible use and conservation of water resources
- Environmental Impact Management
- Conservation of native flora and fauna
A sustainable practice

Preserve native flora and fauna

SACHAYOJ, SANTIAGO DEL ESTERO, ARGENTINA
Carbon emissions calculator included in ASC

### Resultados

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<tr>
<th>Huella Total</th>
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#### Generales

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<tr>
<td>2. Movilidad Operativa</td>
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<td>3. Consumos Administrativos</td>
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#### Resumen por apartado

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<td>2. Siembra</td>
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<td>3. Fertilización</td>
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<td>4. Pulverización Terrestre</td>
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<tr>
<td>5. Pulverización Aérea</td>
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<tr>
<td>6. Cosecha</td>
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#### Árboles

0 Árboles 🌳

Son necesarios para absorber (compensar) las emisiones que emitió durante la campaña.

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### Gráfico

- **kgCO₂eq**
- **1. Labores en Campo**
- **2. Movilidad Operativa**
- **3. Consumos Administrativos**
- **1. Preparación del Terreno**
- **1. Siembra + Fertilización**
- **1. Re-siembra**
- **1. Fertilización**
- **1. Pulverización Terrestre**
- **1. Pulverización Aérea**
- **1. Cosecha**
ASC is a Third party verification Standard

- 3 years certification
- Anually follow up

Third-party verification

100% of farms are audited
AAPRESID is the only Argentine institution (through the ASC certification) recognized by FEFAC for the provision of raw materials of sustainable origin in the European Union.

The FEFAC SOY SOURCING GUIDELINES establishes parameters of sustainability on the part of the buyers of raw materials and recognizes certification schemes at a global level. ASC is within this "responsible sourcing guide".

ASC can also be found on the "Sustainability Map" platform of the International Trade Centre.
✓ The law is made to be fulfilled. In the event that the context is not possible, let's help comply with initiatives (certifications / programs).

✓ If we are going to ask the farmer to go beyond the law, he should have a recognition for this.

✓ There are zones free of deforestation and with conservation agriculture. Here you can buy sustainably.

✓ More interaction between demand and producers. Our doors are open.