Donau Soja Protein Partnerships

A Donau Soja Programme to increase sustainable non-GM soya production in Europe for Europe
Soya imports & deforestation

European soya consumption is around 44 million tonnes per year. Two thirds are imported from countries with serious land use issues such as deforestation. Only 22% of Europe’s soya consumption comes from domestic production. The EU is one of the world’s largest importers of soya: it is the largest importer of soymeal and the second largest importer of soybeans. It imports 19 million tonnes of soymeal and 15 million tonnes of soybeans per year. People in the EU mostly consume soya indirectly: 55 kg per person per year in the form of products from animals fed with soya and 3.5 kg of plant-based soya products.

This significant consumption and level of soya imports lead to deforestation in the exporting countries. At the moment a proposal to minimize the EU’s role in deforestation and forest degradation is discussed on EU level. Nevertheless, for the EU’s impact on deforestation, it must boost its own (EU and European) soya production.

Donau Soja’s Protein Partnership Programme is a valuable tool to achieve this.

Main players of the global soya trade in the global market (2019), mln t

<table>
<thead>
<tr>
<th>Exporters</th>
<th>Importers</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>China</td>
</tr>
<tr>
<td>Brazil</td>
<td>EU</td>
</tr>
<tr>
<td>Argentina</td>
<td>Vietnam</td>
</tr>
</tbody>
</table>

5,000 – 20,000 km

Only 22% of European soya consumption is covered by domestic soya production

| European soya consumption: 44 mln t |
| Covered by domestic soya production: 22% |
| Covered by imports: 78% |

Sources: Donau Soja

Leading importers, mln t

<table>
<thead>
<tr>
<th>Soymeal</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU: 19</td>
</tr>
<tr>
<td>Vietnam: 5.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Soybeans</th>
</tr>
</thead>
<tbody>
<tr>
<td>China: 89</td>
</tr>
<tr>
<td>EU: 15</td>
</tr>
</tbody>
</table>

Source: USDA
Soya & the climate crisis

Building sustainable supply chains is a challenging task. While the demand for sustainably produced agricultural commodities such as soya is growing enormously, these commodities are a major contributor to global CO₂ emissions and thus to the climate crisis. Images of burning rainforests and the effects of growing herbicide-resistant GM soya in monocultures have been omnipresent for years. Of all the agricultural commodities cultivated in areas impacted by deforestation and imported into the EU, soya alone is responsible for an incredible 31% of all tropical deforestation incorporated in EU imports, the WWF reports.

Choosing the right source of soya has a big impact in reducing CO₂ emissions and fighting against climate crisis.

Climate crisis is impacted by:
- Agriculture;
- Feed;
- Soya.

Soya is accountable for 31% of deforestation from agricultural products imported into the EU.

WWF, 2021

EU-27: Soya imports and deforestation

Soya alone is accountable for 31% of all deforestation imported into the EU.
The huge potential for European soya

Yields in Europe are high, percentage in crop rotation still very low. → Big potential for sustainable soya cultivation in Europe for Europe.

The potential for soybean cultivation in Europe is high and the starting point is good. Currently, legumes including soybeans account for only about 5% of the European crop rotation despite the fact that soybeans grow very well in Europe and harvests in Italy, for example, are among the best in the world. But it is also a question of the economic competitiveness of European soya producers. Appropriate premium markets, e.g. for sustainably produced non-GM food, need to be established. Supply chains are being developed step by step.

Soya has a big potential in Europe

Soya yields — global top 10 list (t/ha, 2016-2020 avg.)

<table>
<thead>
<tr>
<th>Country</th>
<th>Yields (t/ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>3.4</td>
</tr>
<tr>
<td>USA</td>
<td>3.4</td>
</tr>
<tr>
<td>Italy</td>
<td>3.3</td>
</tr>
<tr>
<td>Serbia</td>
<td>3.1</td>
</tr>
<tr>
<td>Croatia</td>
<td>3.0</td>
</tr>
<tr>
<td>Austria</td>
<td>3.0</td>
</tr>
<tr>
<td>Argentina</td>
<td>2.9</td>
</tr>
<tr>
<td>Canada</td>
<td>2.9</td>
</tr>
<tr>
<td>Paraguay</td>
<td>2.8</td>
</tr>
<tr>
<td>France</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Harvested area of annual crops in Europe (2020)

- Cereals: 65%
- Legumes: 5%, including Soybeans: 2%
- Other crops: 30%

\(^2\) The list includes countries with min 50,000 ha soya area in 2020. Sources: USDA, Donau Soja

\(^3\) Including total Russia. Sources: Donau Soja based on FAO data

\(^1\) Only European Russia

Source: Donau Soja
Vision: soybean production and consumption 2030

A European Protein Strategy leads to an increased diversification in European field crop production, including more legumes, less non-sustainable imports from overseas, more efficiency in protein feeding and a shift towards healthy and plant-based diets.

Increasing need for Protein Partnerships

To support the development of sustainable supply chains in Europe, Donau Soja has launched the Protein Partnership Programme in 2019. Similar to credits from overseas, the Programme is intended to support and build up the first stage of sustainable soya production, i.e. cultivation and the work of the primary collectors. In many cases, it is the international food retail sector that seeks to make a positive impact on the climate crisis by reducing their CO₂ footprint regarding soya.

Together with our partners along the value chain, we aim to increase non-GM sustainable soybean cultivation in Europe. At the same time, we strive to integrate sustainably produced, non-GM soya from Europe into European supply chains and communicate this to consumers through product labelling.

After all, consumers prefer not to consume food that is directly or indirectly linked to rainforest destruction or genetic engineering.

What is the Protein Partnership Programme?

1. The Programme aims to increase the volume of non-GM sustainable soya mostly in European countries outside the EU (Serbia, Croatia, Bosnia and Herzegovina, Moldova and Ukraine).

2. It aims to reach a tipping point where segregation cost go down and physical supply chains become economically feasible not only for niche markets and premium brands.

3. Protein Partnerships are especially helpful for companies/retailers to compensate for (big) soya volumes of non-sustainable or unclear origin — providing a European alternative to credits from overseas.

Main results by 2030

- Shifting towards 100% sustainable imports
- Raising soya self-sufficiency rate to 50%

Imports of unknown sustainability status

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<tr>
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<td>30 mln t</td>
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<td>50%</td>
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<tr>
<td>2020</td>
<td>50% Sustainable imports</td>
<td>50%</td>
</tr>
<tr>
<td>2021</td>
<td>50% European soybean production</td>
<td>50%</td>
</tr>
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<td>2025</td>
<td>30 mln t</td>
<td>50%</td>
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Protein Partnerships in a nutshell

1. Knowledge transfer & farmer trainings
   Donau Soja conducts trainings for agricultural producers and farmers on sustainable agricultural production approaches and techniques.

2. Certification of farmers or cooperatives and agricultural collectors
   Donau Soja supports quality management and standard implementation: covering Donau Soja / Europe Soya certification, GM and pesticides analysis costs.

3. Activities for value chain building & market uptake
   Donau Soja organises platforms and matching activities to improve market access for farmers and cooperatives; as producers of «climate friendly soya» in Europe.

The Protein Partnership Programme funds and organises hands-on trainings for farmers, and participation in field trials in partner countries.

Information on best practices in soybean cultivation is given both theoretically and practically, from variety selection and cultivation techniques, to inoculation or crop protection. Farmers and cooperatives have access to a broad network of experts for direct knowledge exchange. In addition various online formats have been developed, including: The Serbian website «Expert advice for farmers», the Soya Discussion Club in Ukraine, and cooperations with universities and individual companies on specific topics.
Focus Ukraine: Development of non-GM sustainable soya production

Ukraine has the biggest potential to increase sustainable non-GM soya production in Europe for Europe, both in terms of volumes and sustainability. Besides, Ukraine can play an important role to reduce EU’s dependence on non-sustainable imports from overseas as it has 400% self-sufficiency in soya production.

But, there are some major challenges:
- Illegal use of GM soybean varieties;
- Widespread use of hazardous pesticides;
- Adaption to changing climate conditions.

Additional challenges caused by the war against Ukraine:
- Limited farm resources (e.g. seeds, fertilisers, fuel);
- Bottleneck of export routes, limiting increased production.

Addressing the challenges

Donau Soja has developed a set of materials and activities to address the issues of soya cultivation in Ukraine, including:

- Trainings on sustainable non-GM soya cultivation practises and techniques;
- Trainings related to farming within limited resources availability (seeds, fertilisers, fuel etc.);
- Personal on-farm technology consultations;
- Development of knowledge exchange materials;
- Activities to overcome the bottleneck of export routes from Ukraine caused by Russian blockades of the Black Sea ports.
Donau Soja sustainability standards

Implementing Donau Soja / Europe Soya standards in the Protein Partnership Programme means:

Farmers and cooperatives participating in the Partnership Programme grow their soya according to the sustainability criteria of the Donau Soja/Europe Soya standards and can benefit from free certification as part of the partnership — as can their first collection points. With these measures, the first step of the physical flow of sustainably produced beans is guaranteed. This means both international traders and processors can access these sustainably produced, non-GM European soybeans. The more sustainably produced beans are available, the lower the cost of segregation and the easier it is to build physical supply chains from field to fork. A win-win situation for all involved.

European origin
- We know all our farmers — Donau Soja / Europe Soya is produced, controlled and verified from Danube region / Europe.

Sustainability
- Only pesticides approved in the EU are allowed (also, in non-EU countries), ban on desiccants like Glyphosate.
- Zero deforestation and land use change (cut-off date 2008).
- EU laws and international regulations (namely ILO) regarding social and labour standards.

Non-GM quality
- Produced and certified non-GM, according to the German regulation (VLOG), the Austrian Food Codex or the non-GM Danube Region Standard.

Three stage inspection system
- Self-monitoring / Quality assurance system.
- External, independent, accredited certification bodies for Donau Soja / Europe Soya certification.
- Donau Soja supervisory inspections.
**CO₂ reduction with Donau Soja**

Donau Soja / Europe Soya certified soybeans have a significantly lower footprint compared to default data for Brazil and Europe in the Agrifootprint database.

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**CO₂ reduction in egg production**

-36%

Austrian egg sector

BOKU 2019

**CO₂ reduction in pig production**

-41%

-40%

-42%

-31%

Thanninger Freiheit

Edeka Südwest Hofglück pork

Gustino Stroh pork

Swabian-hall pork

FIBL 2020

FIBL 2020

FIBL 2020

FIBL 2020

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**Changes in the Austrian egg sector**

~1.7 billion certified eggs lead to a reduction of 110,000 t CO₂ eq per year since the beginning.

Since 2013, the Austrian egg sector changed to Donau Soja. Practically all shell eggs sold through the Austrian food retail chains are fed with Donau Soja.

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Carbon footprint per kg soybeans, kg CO₂ eq / kg soybean

Europe

0.82

Croatia

0.35

Ukraine

0.30

Serbia

0.28

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Donau Soja / Europe Soya certified soybeans have a significantly lower footprint compared to default data for Brazil and Europe in the Agrifootprint database.
Transforming volumes into physical value chains

Your company & Donau Soja are stronger together

Protein Partnerships as a starter to compensate for large soya volumes

Certified Donau Soja and product label for premium brands

Cut CO₂ emissions with Donau Soja feed by 30-40% per kg egg or pork

Significantly reducing the CO₂ footprint of your products!

Supporters of the Programme

Protein Partnership volumes

2020 2021 2022

93,000 178,000 550,000

...and others
How the Programme began and its status as of September 2022

Since its launch, the Programme has shown significant potential for development.

The timeline of the Programme development

- **2019/2020**: The Programme has started in **Serbia** and **Croatia**
- **2021**: **Ukrainian** partners have joined the Programme
- **2022**: New partners from **Moldova** and **Bosnia and Herzegovina** have joined the Programme

Protein Partnerships are a valuable programme in cooperation with the Austrian Development Agency.

Contact person:
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We invite you to participate in the Programme!

Protein Partnerships

Potential 850,000 t*

Countries of partnership implementation:
Bosnia & Herzegovina, Croatia, Serbia, Moldova, Ukraine

* Status 2022