Implementing segregated chains of custody in mainstream supply: 
asessment of practical consequences and cost

The maintained ambition to use segregated supply chains for the supply of no-
deforestation streams raises several practical questions of implementation, including 
feasible adjustments of supply chain logistics, additional costs to be borne by the EU 
market and availability of compliant agricultural commodities for EU customers.

1. Prices of products traded under segregated chains of custody

Segregated supply chains were never developed with a view to ensuring a deforestation-
free status of a product. They were developed with a view to safeguarding the compliance of 
products (e.g. non-GMO, organic) and avoid measurable cross contamination. In 
practice, there is no detection method to determine the compliance of a commodity that is 
part of a segregated deforestation-free supply chain.

According to available price information for standard soybean meal and available, but 
limited information on premium paid on non-GMO soybean meal (quotes from 
Proteinmarkt.de, which stopped publishing prices around half 2020), the premium for non-
GMO soybean meal was 150 € per tonne in Germany in mid-2020. This was a +50% on 
top of the standard soybean meal price at that time. Today with the general price increase 
of the standard soybean meal, we understand that the flat price premium has further 
increased. Recent news (see enclosure) and price reports show that premium can increase 
to +75% of standard soybean meal prices and even beyond1.

The premium is intended to compensate the additional handling costs and logistics 
requirements that arise across the supply chain.

2. Volumes of products traded under segregated chains of custody

The IDH soy monitoring report for 20192 shows that out of the 32,4 million tonnes of 
soybean meal that were available to the EU market, 12 million tonnes of soybeans (almost 
10 million tonnes in soybean meal equivalent) and over 18 million tonnes soybean meals 
were imported into the EU. On the other hand, the EU production only amounted to slightly 
above 2 million tonnes in 2019 and rose to close to 3 million tonnes in 2020.

The 40% of the imported volumes compliant with FEFAC SSG are verified or certified, 
mostly traded under mass balance or area mass balance. The volumes imported under

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1 Prices for Non-GMO soybean meals can be found at phttps://www.proteinmarkt.de/aktuelles/markt/aktuelle-
preisnotierungen-oelschrote

2 European Soy Monitor - Insights on the European up-take of responsible and deforestation-free soy in 2019 
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Segregated chains of custody are the non-GMO soy products, essentially belonging to a small share under RTRS certified volumes and most of the Proterra certified volumes.

<table>
<thead>
<tr>
<th>Certification system</th>
<th>Volumes traded under segregated CoC (in tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTRS SG 4</td>
<td>6,803</td>
</tr>
<tr>
<td>Proterra</td>
<td>2,792,705</td>
</tr>
</tbody>
</table>

The flows of goods subject to segregated supply chains represent a small share of volumes traded in the EU and an even smaller share of global volumes of soybeans and soybean meals traded.

### 3. Cost implied in segregated supply chains

It must be understood that the setting up of segregated supply chains is likely to affect more severely the origination side, because it will require handling of two (or more) different product streams. In Europe, the no-deforestation products (in this case soybeans and meals) would become the norm, while non-GM soy would continue to be served. We assume hence a larger share of the additional cost will have to be borne in the origination markets, because they will not be exclusively exporting to Europe and the standard for other destination will continue to vary. Indeed, segregation will be an additional requirement for operators supplying the European market.

To estimate the segregation cost at the collection and trading level requires looking at additional costs:
- for longer transport to the collector/country elevator
- for dedicated transport from country elevator to processor/export terminal
- for separate handling on site (processor and/or export terminal)
- for extra storage facility (processor and/or export terminal)
- for longer waiting time for seagoing vessels (separate line-up)
- time and cost for audits.

Based on expert assessment, this could entail around +/− 25% additional costs on a yearly basis compared to the current situation.

At the level of soybean processing (crushing) in origin countries, this may entail:
- additional silos (both for soybeans and for meal) to be able to handle segregated volumes separately,
- extra discharge line and equipment, to avoid mixing segregated and standard soybeans,
- extra loading installation for meal, to avoid mixing segregated and standard meal
- if the oil is exported, extra oil tanks and dedicated lines and additional refined oil tank
- if intermediate products need to be stored, this will multiply the additional oil tanks and dedicated lines.

Based on expert assessment, this could entail investment needs that would represent about +/−25% of additional costs on a yearly basis.

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3 Assuming segregated volumes are the soybean meal volumes imported into EU as EU soybean meal production will be transported in smaller batches and de facto segregated

4 RTRS SG
4. Adaptation of the offer in case of mainstream implementation of segregation

These additional costs will be considered by operators in origination countries in a context of overall demand reduction from Europe and demand increase from other regions. The costs incurred are likely to discourage operators and regions from setting up costly segregated chains of custody, leading to a reduction of the number of originations. The premium, reflecting the +50% additional cost, could then be expected to even double at times of limited sourcing possibilities.

Some regions (such as the Cerrado in Brazil, or Paraguay) may not bother to adapt and be no longer available. In practice, a reduced offer will at best drive prices up for EU supplies leading to higher price volatility for EU operators and to supply delays. But serious supply disruptions will have to be anticipated not only during the years of supply chain adjustments to accommodate mainstream segregated flows, but also beyond, due to lack of alternatives in case of harvest failures.

Further to possible segregation cost, other impacts shall be considered:
- Companies may locally try to establish dedicated flows to Europe. That may impact availability of production, thus triggering a price increase due to higher demand in given areas.
- The dedication of such flows into Europe can have adverse effects by increasing the pressure on other sensitive areas and it cannot be excluded that the turbulences due to the changed origination flow increases deforestation due to the new flow dynamics.
- The exclusion of Europe from regions that face deforestation will create a two-tier market and indirectly incentivise deforestation due to lack of governance of players in those other markets.

Enclosures: recent articles on the issue
Soybean shortage to swell non-GM food prices - French feed makers

By Reuters Staff 2021

PARIS, Sept 2 (Reuters) - France’s taste for non-genetically modified food will be challenged this year as a global shortage of suitable soybean could raise prices of meat, egg and milk labelled GM-free by up to 10%, animal feed makers warned on Thursday.

GM crops are widely grown across the world, but they remain controversial in Europe, where very few varieties are authorised for growing and some countries like France have completely outlawed their cultivation, citing environmental risks.

A rise in demand due to lower availability in weather-hit countries sent the premium on non-GM soybean rocketing to 280 euros a tonne in August from about 130 euros/tonne in March and 90 euros/tonne in November, French animal feed makers group SNIA said.

The higher premium has an immediate impact on animal feed’s costs and, in a knock-on effect, on prices of by products.

"On average the impact for consumers will be a price rise of about 5% to 10% depending on the sector," said SNIA Deputy-Chairman Philippe Manry, who is also director general for French animal feed maker Sanders, part of oilseed group Avril.

Protein-rich soybean is used in most animal feed products. France has launched a country-wide plan to boost local production of protein crops to cut its dependence on imports.

Non-GM animal feed amounts to about 40% to 45% of the total produced in France.

Imports represent about 20% of feedstock used in animal feed made in France, with soybeans coming mostly from Latin America but also from as far as India in the case of the non-GM industry. (Reporting by Sybille de La Hamaide; Editing by Dan Grebler)

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