



the sustainable
trade initiative

Soy reporting initiative

Final public report

March 2017





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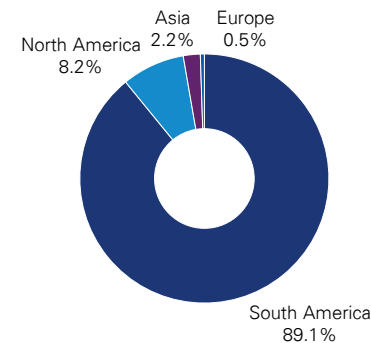
Executive summary

Summary of results

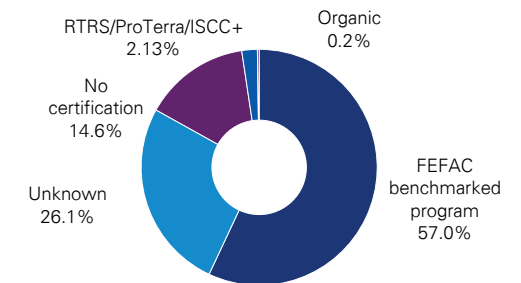
- Asda, M&S, Sainsbury's and Tesco worked with the IDH Sustainable Trade Initiative and KPMG to identify the Soy in their own-brand supply chains.
- In total, the four UK retailers reported 797 thousand tonnes of soy in their products and supply chain covering a 12 month period.
- About a third of the soy is categorised as tier 4a, i.e. meat as ingredient. This is soy used in feeds for animals where the meat is an ingredient in a sold product.
- 72% of the soy comes from a known origin, of which about 60% is within a sustainability program (2.1% according to RTRS/ProTerra or ISCC and 57% according to a FEAC Benchmarking program).
- Of this total tonnage, 47 thousand tonnes comes from North America.
- 508 thousand tonnes originates from South-America and those production areas are potentially connected with 'Landscapes at risk from soy expansion' based on the CGF Soy Sourcing Guidelines.
- Supply chains where retailers are typically close to the feed manufacturer are tier 2 (meats) and 3 (eggs and dairy). Three feed suppliers provide around 42% of all of the soy across the retailers.
- We found that for the four UK retailers, only two soy traders handle about 57% of the soy for tier 2 and 3 products. If retailers work with these soy traders to strengthen their sustainability policies, across all four tiers it will have a massive impact on their total soy volumes.



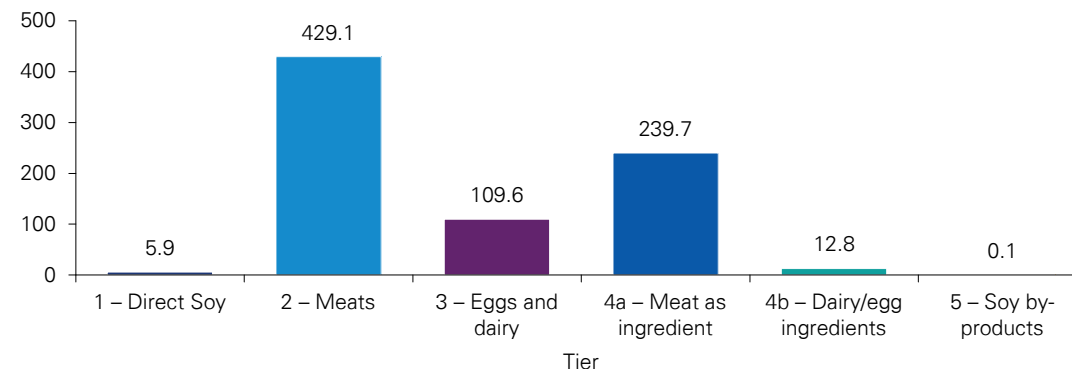
Soy by continent, where known
(represents 72% of total soy)



Verification category for soy of known origin



Soy tonnage ('000s) by tier



Evaluation of this Pilot

Overall the quality of information determined from this pilot is significantly better than what was already available to the team.

Supplier data

- The project obtained 2,760 data points from 39 different suppliers, across four retailers.
- However, there were still some gaps, particularly with beef and lamb, which are particularly difficult to evaluate.

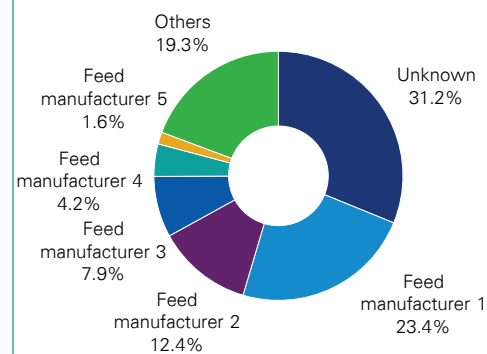
Retailer data

- The quality of retailer data varied and this made it difficult, sometimes impossible, to match ingredient data with quantity sold – these products could not be included.
- There were also limitations in terms of the product data – many ingredients were of unknown quantities in the products (those required under QUID were reliably identified). This means that for Tier 4a and 4b products there is limited granularity.

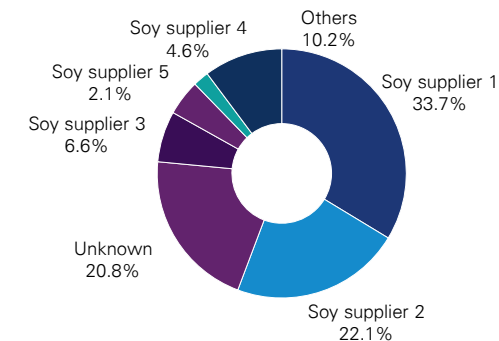
Sustainability programs included

- At the time of the survey, 8 programs were acknowledged as FEFAC benchmarked. The category 'FEFAC-benchmarked' therefore refers only to these 8 programs (Bemefa, AAPRESID-AC, USSEC-SSAP, Cefetra CRS 3.1, ISCC EU, AIC FEMAS, Cargill Triple S, ADM Responsible Soybean Standard).

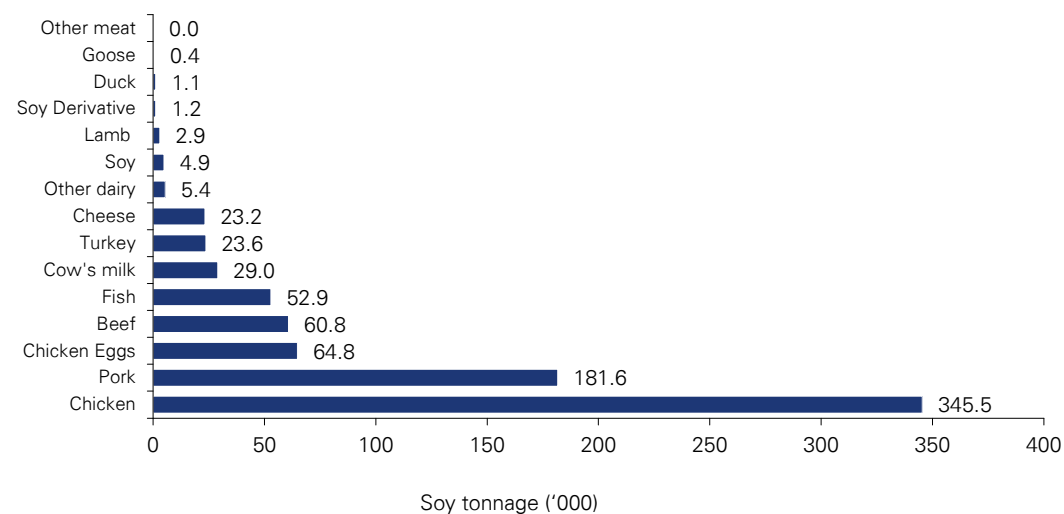
Soy by feed supplier



Soy by soy importers



Soy tonnage ('000s) by protein type

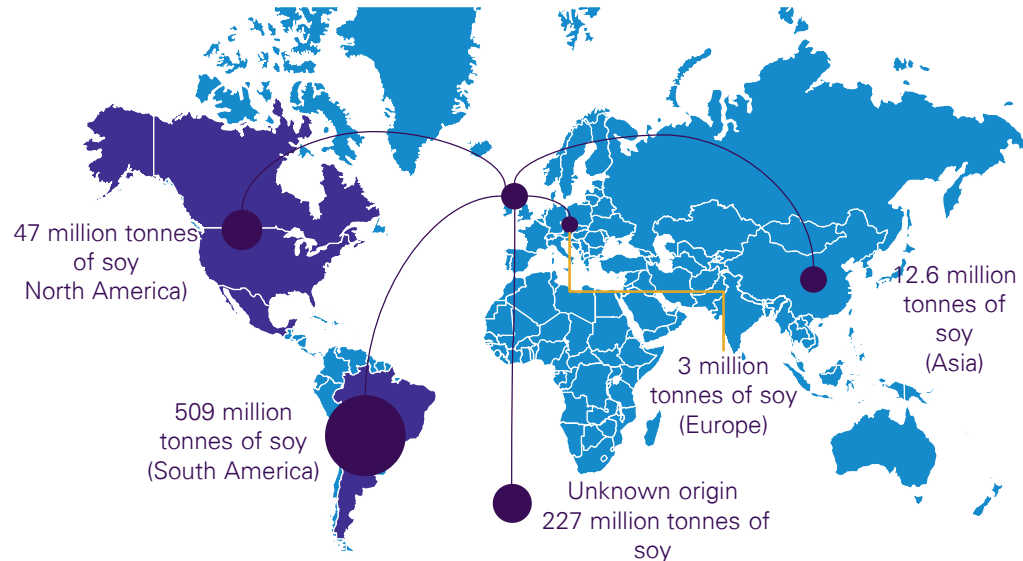


The Soy challenge

Soy is a major driver of deforestation and needs focus

Soy is one of the world's most important and profitable agricultural commodities. But it is also controversial because its production is associated with environmental and social problems; including deforestation and poor working conditions.

To date, NGOs have focussed on palm oil as a major driver of deforestation. Now, attention is shifting to soy. The Consumer Goods Forum's commitment to zero net deforestation by 2020 means many retailers must understand the scale and risk of soy in their supply chains and take action where needed.



We are working together to give it this focus

Many companies have published company commitments on the use of responsibly sourced soy in their supply chains, and report on these targets in their annual sustainability reports.

They have also made commitments to eliminate deforestation from their supply chains. As soy is a potential driver of deforestation, they need to better understand the soy use in global supply chains and mitigate the risk of deforestation.

Most soy is used indirectly in the production of many products. This includes meat, dairy, leather, chocolate and personal care products. This makes it one of the most challenging sustainability reporting issues that businesses have had to address to date.

KPMG and CGF have developed a soy measurement methodology that underpins the creation of a cutting-edge solution to capture, transform and report on data from Retailers and calculate their supply chain soy footprint.

This methodology groups products together in a 'ladder', where the lower tier relates to directly purchased soy and its derivatives, and the highest tier to soy by-products (such as lecithin, which is used as an additive in products such as chocolate).

Additionally, the CGF published their Sustainable Soy Sourcing Guidelines in which they identify landscapes at risk from soy expansion: Brazil, Bolivia, Paraguay, Argentina and Uruguay.

Together with IDH, the Sustainable Trade Initiative, and four of the largest UK retailers, we have undertaken a pilot project to use our combined soy knowledge, data analysis capabilities and supply chain contacts to get a step improvement in the quality of soy data

The Soy-Ladder

CGF's sustainability steering group and KPMG worked together to develop the Soy Measurement Ladder and Soy Measurement Methodologies.

Together they:

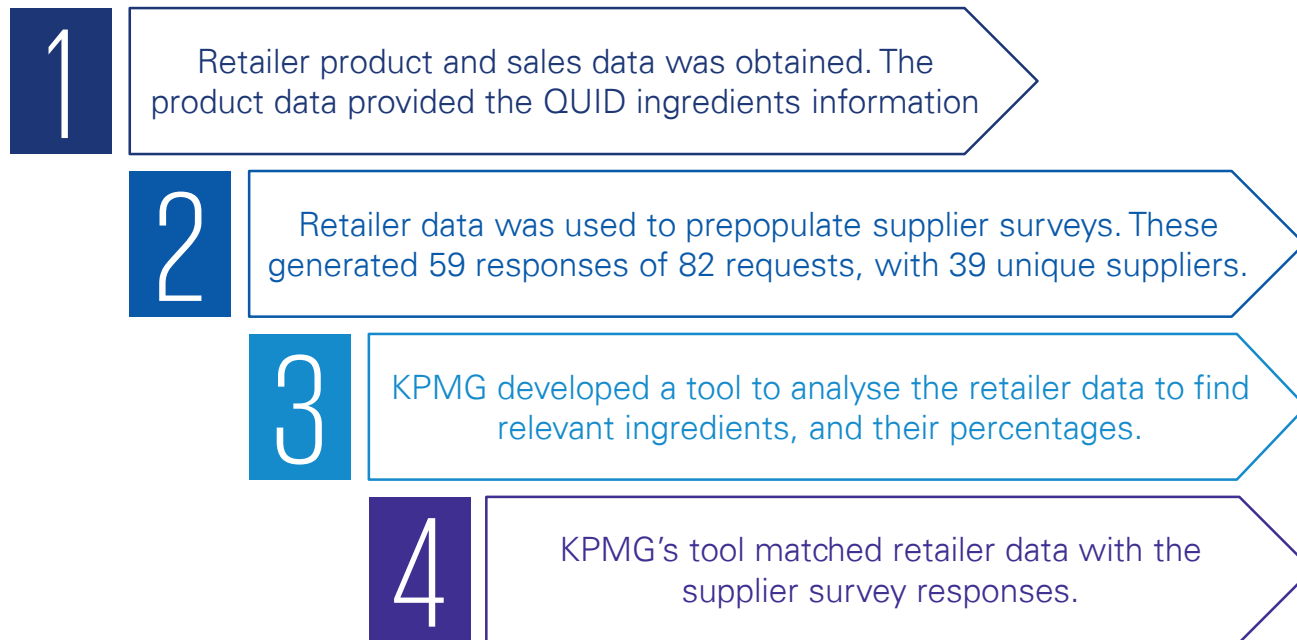
- Provide a common industry approach and language for measuring soy.
- Give flexibility to choose an approach based on resources available.
- Provide a staged/stepped approach to footprinting boundaries.
- Give a choice of step-by-step calculations.
- Allow comparison and summation between similar businesses.
- Can be used immediately by any company.



This model has been used to form the basis of this output.

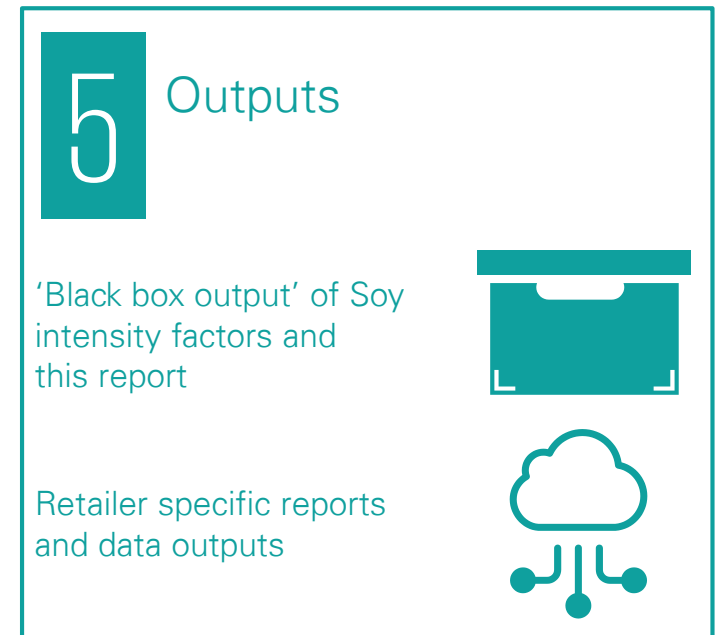
Project approach

The project included three main work streams over a six month period, with all four retailers:



Notes

- We prepopulated the supplier surveys using retailer data which reduced the effort for suppliers and improved the quality of output.
- The survey and tool development took place in parallel – as more data was provided the tool was developed further. This also helped the team to identify potential errors and seek updated data from suppliers.
- The quality of retailer data created a significant limitation on the accuracy of retailer reports.



Datasets include:

- Volume
- Intensity
- Verification type
- Suppliers/Importers
- Feed supplier
- Regional source

Results

Soy volumes



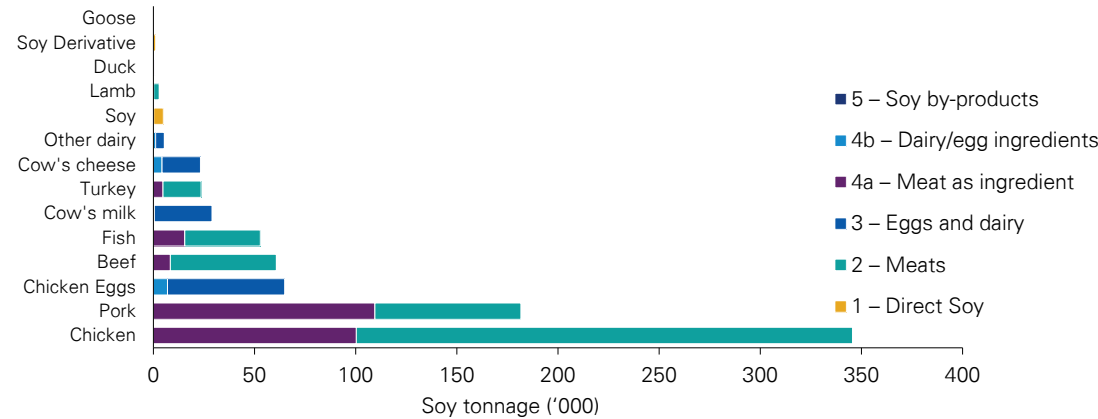
Total soy volumes per product range

Findings

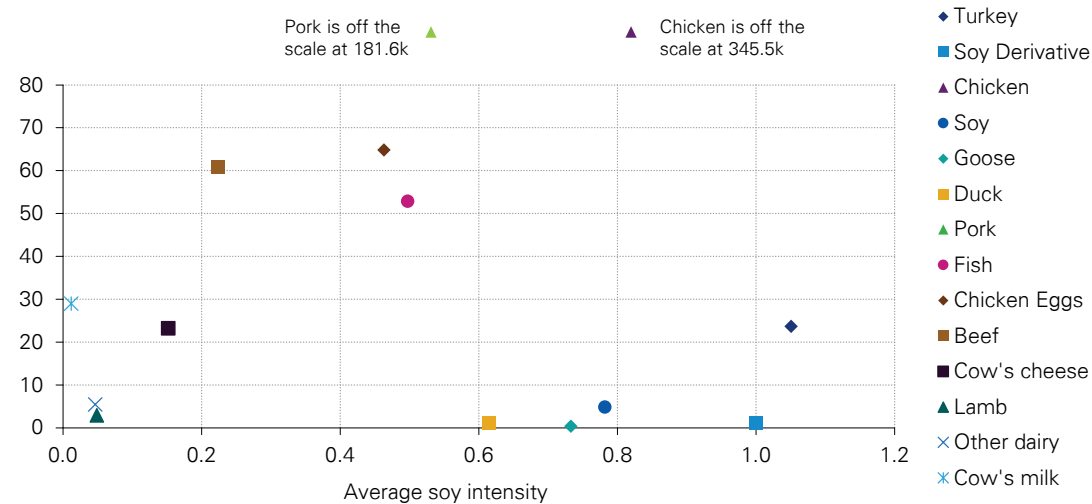


- Soy is a key component in many of the foods eaten today. In particular, its high protein content compared to other possible feed ingredients means that it is used as feed for the rearing of cows, pigs, chickens, fish and other animals across the world.
- Our data analysis (based on supplier survey responses) shows that most soy is used in the pig and chicken meat supply chain.
- There is significant variation in the soy intensity factors for the different food types.

Soy tonnage ('000s) by protein type and tier



Soy tonnage ('000s) by protein type and average soy intensity



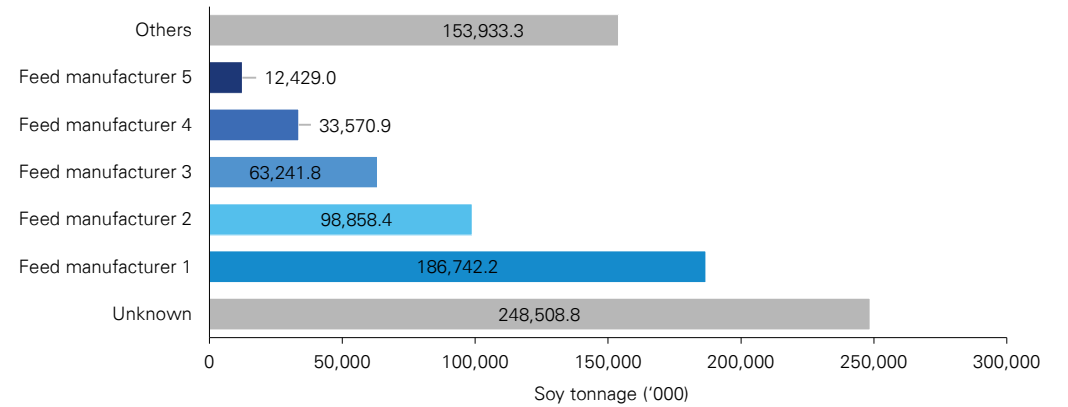
Soy volumes per feed manufacturer

Findings

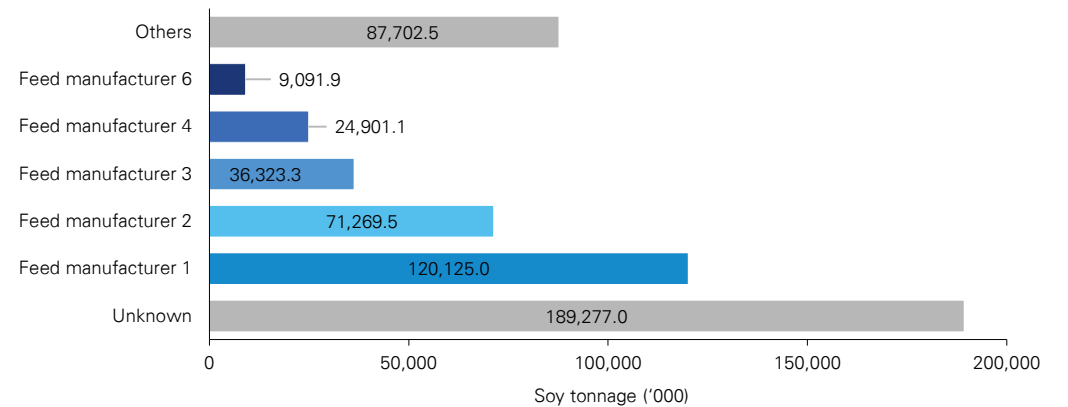


- Supply chains where retailers are typically close to the feed manufacturer are tier 2 (meats) and 3 (eggs and dairy).
- Around two thirds of the soy from the two largest suppliers is verified according to a FEFAC-compliant program.
- Of the soy which comes from unknown feed manufacturers, nearly 10% is RTRS/ProTerra/ISCC+ verified, and a further 48% is verified by a FEFAC Benchmarked program.

Soy tonnage per feed manufacturer (for all regions and all tiers)



Soy tonnage per feed manufacturer (for all regions, only tier 2 and 3 products)



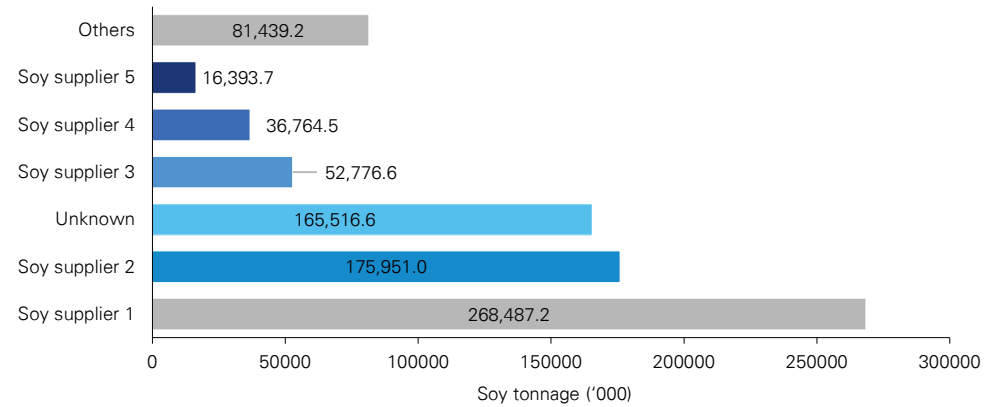
Soy volumes per soy trader

Findings

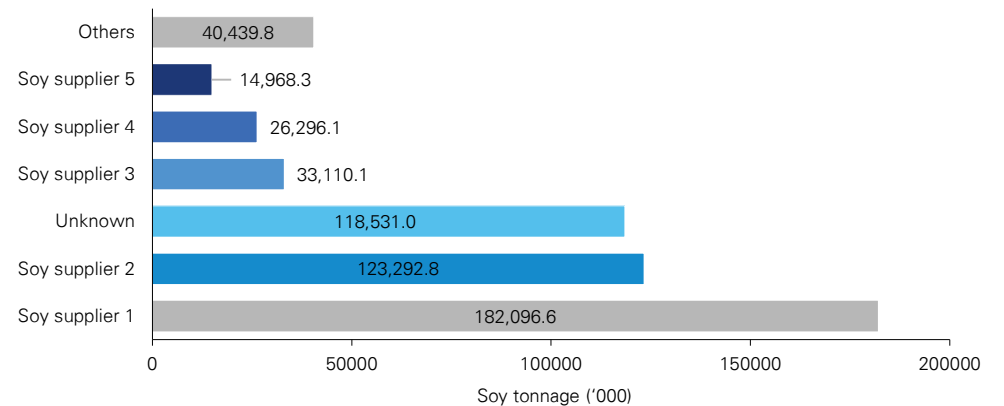


- We found that for the four UK retailers, only two soy traders handle about 57% of the soy for tier 2 and 3 products.
- The top two traders are the same, both for the soy originating from South America or of the total soy volume for the four retailers.
- We have identified that even from these major traders there is still a large portion, 42%, that is traded as conventional soy (not verified by a FEFAC benchmarked program or by RTRS/ProTerra/ISCC).
- Incentivizing these 3 major traders to set or strengthen their policies towards deforestation-free soy use will have a large impact on soy volumes for these four UK retailers.

Soy tonnage per soy supplier (for all regions and all tiers)

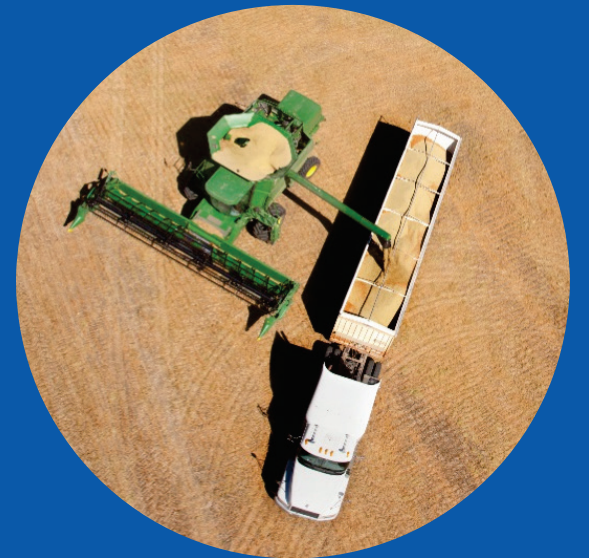


Soy tonnage per soy supplier (for all regions and tiers 2 & 3)



Results

Soy origin



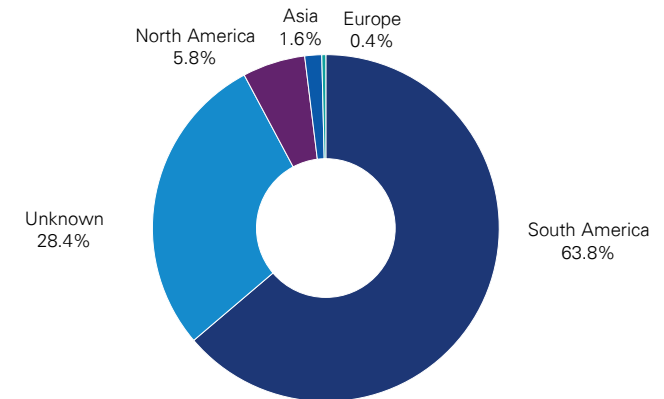
Origins of total soy volume

Findings



- In total, the four UK retailers reported 797 thousand tonnes of soy annually in their products and supply chain.
- Of the soy from known origin in UK retail supply chains around 6% comes from North America and Europe.
- South America is the major producer of soy for these UK retailers. When we exclude the soy volumes that we cannot trace to its origin, we've identified that almost 90 % of soy originates from South America.
- Across all retailers, almost 30% of the total soy comes from an unknown source. The retailers risk that this soy comes from a region with a high-risk of deforestation.
- To mitigate the risk of deforestation in the retail supply chain, the retailers could focus on the soy coming from South-America and from unknown sources.

Total soy by continent



64% of the Soy provided in the supplier survey results is from South America

570 thousand tonnes of Soy is from a known region

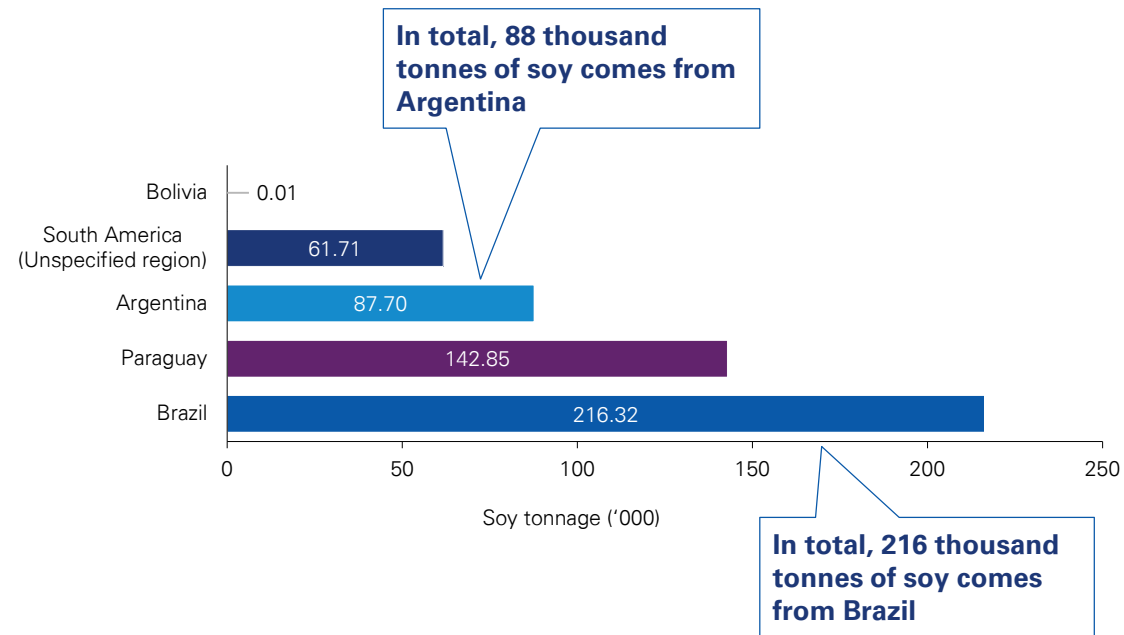
Region origin of soy from South America

Findings



- Of the known regions, almost 90 % of soy volumes comes from South America. Most of this soy comes from Brazil and Paraguay.
- The data available from the suppliers has allowed us to see regional responses.
- Of the soy from South America we were able to obtain some data showing the specific region of origin. For example, of the total soy volume reported by the four retailers, 15 thousand tonnes comes from the Mato Grosso region in Brazil.
- Of the soy that is known to originate from Brazil, only around 2.5% is verified as RTRS/ProTerra/ISCC+. However, more than 60% is verified against a FEFAC-benchmarked program.

Total soy by South American country



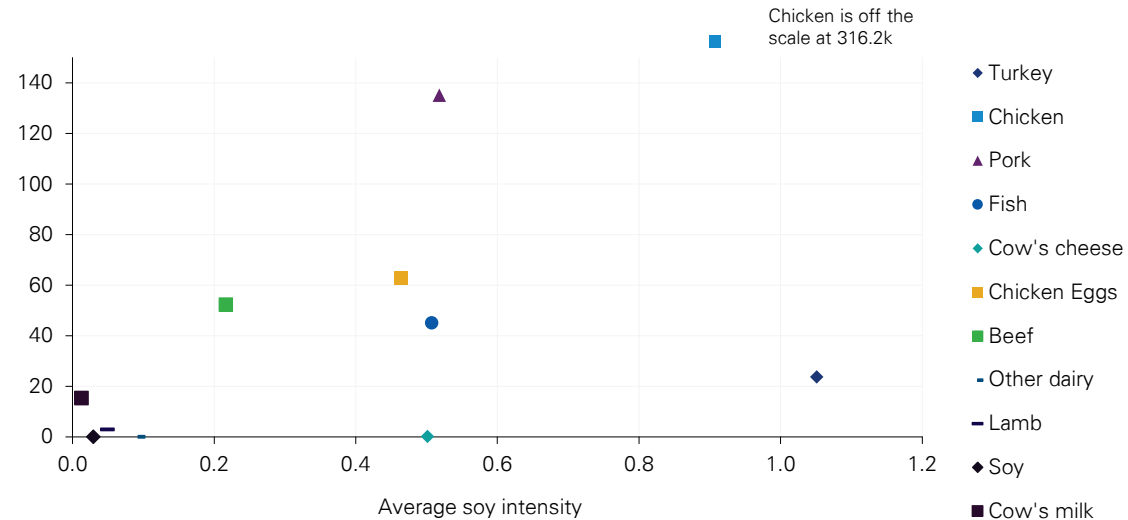
Soy by species for South America

Findings

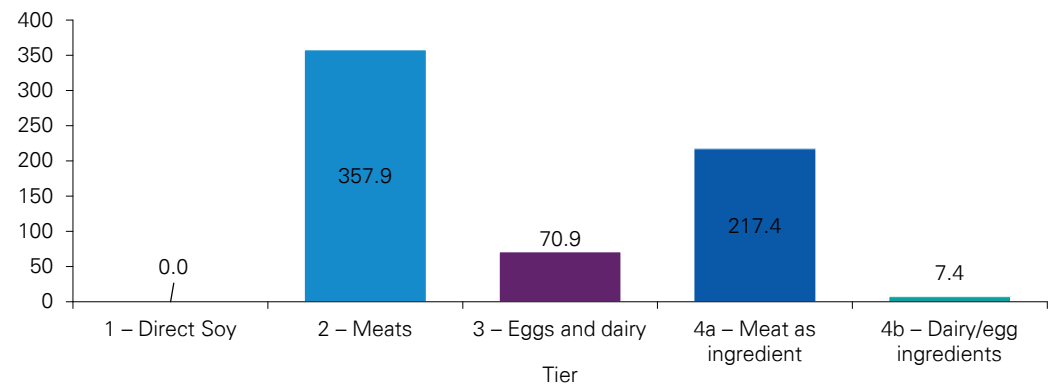


- We have analysed the products comprising South American soy by the protein type. Most soy from South-America is used in the supply chain of chicken and pork.
- About one third of the soy from South America is used in supply chains where the meat is used as an ingredient in the final product (tier 4a products). A retailer typically has less influence and insight into the suppliers in these supply chains. This may lead to more conventional soy being used in these supply chains.
- Meat (tier 2 products) and eggs and dairy (tier 3 products) are products where retailer typically have more influence on their supply chains. Our results show that the four retailers use about 429 thousand tonnes of soy from South America for these products. This is over half of the total South American soy reported by the four UK retailers (55%) which presents great opportunities for engagement.
- 59% of soy from tier 2 and 3 products is verified against a FEFAC benchmarked program.

South American soy tonnage ('000s) by Protein and average intensity



South American soy tonnage ('000s) by tier



Results Verified soy



Volumes of verified soy globally

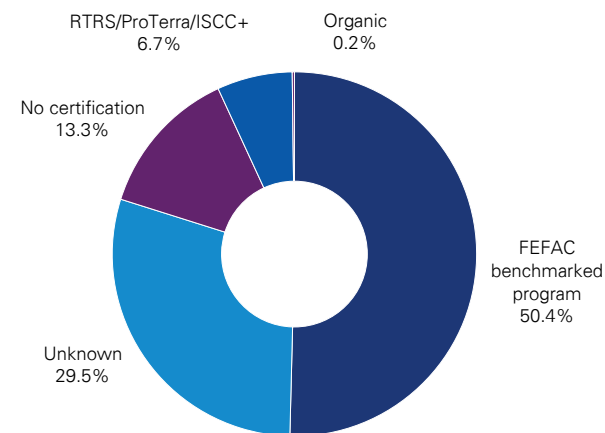
Findings



- Of the total volumes of soy used by the four retailers, a large part of verified against a FEFAC benchmarked program (50%).
- The percentage of RTRS/ProTerra/ISCC-certified soy is relatively small: less than 7% of total soy use. This includes the soy that comes from low-risk regions such as Europe and North-America.^(a)
- We have not made a distinction between the different supply chain models for RTRS certified soy (so this can either include RTRS credits or physical material).
- 29.5% of soy used by the four retailers comes from an unknown trader or source.
- At the time of the survey (spring 2016), 8 programs were acknowledged as FEFAC benchmarked. The category 'FEFAC-benchmarked' therefore refers only to these 8 programs (Bemefa, AAPRESID-AC, USSEC-SSAP, Cefetra CRS 3.1, ISCC EU, AIC FEMAS, Cargill Triple S, ADM Responsible Soybean Standard). Currently, there are 18 responsible soy programs that are FEFAC compliant.

Note: (a) CGF Refers to Brazil, Bolivia, Paraguay, Argentina and Uruguay as regions at risk of soy expansion.

Soy by verification category



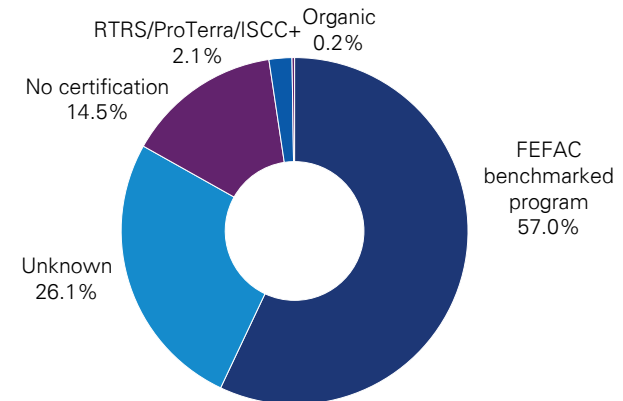
Volumes of verified soy from South America

Findings



- South America is a major origin of soy volumes reported by the four UK retailers.
- The percentage RTRS/ProTerra/ISCC-certified soy is small: around 2% of the soy that originates from South-America, and 7% of the total soy volume reported by the four UK retailers).
- However, 57% of the South American soy is verified against a FEFAC benchmarked program
- For the soy originating from South America, Paraguay has the highest volume that is verified according to RTRS, ProTerra, ISCC Plus or a FEFAC benchmarked program, at around 81%. Of soy known to come from Brazil, 63% of soy volume is verified according to one of these programs, and for Argentina only 34%.

South American sourced soy by verification category



So what?

Conclusions

- Participation in the KPMG's Soy Reporting Tool pilot has provided the four UK retailers Asda, M&S, Sainsbury's and Tesco with a robust insight into the soy used in their supply chain.
- Calculations were based on the Soy Ladder methodology, developed by the Consumer Good Forum (CGF) and KPMG. The soy usage was calculated along 5 tiers of products, ranging from direct soy use in products to soy by-products such as derivatives that are used as ingredients in retail products.
- The results show that besides tier 2 (meats), tier 4a (meats in processed food products) has the highest volume of soy embedded in the supply chain. This is a category that is typically not included by many retailers in their soy reporting, as the volumes of meats and therefore soy are difficult to calculate. This pilot shows that retailers who do not have insight in this tier are likely to underreport their soy usage.
- Supply chains where retailers are typically close to the feed manufacturer are meat (tier 2 products) and eggs and dairy (tier 3 products). They cover around two thirds of the soy usage of these four retailers. When we zoom into the supply chain for these products, we have identified only a handful of suppliers that handle the majority of the soy.
- The key areas that are at risk of deforestation due to soy expansion, are in South America*. We see that for these four UK retailers, a very large part (89%) of the soy from known origin comes from South America.
- Many retailers have committed to RTRS or equivalent certification to ensure the use of deforestation free soy in their products and supply chains. Our pilot shows that only a small percentage of soy used by these four UK retailers is actually RTRS, ProTerra or ISCC+ certified.
- However, we do see that the majority of soy is verified against one of the FEFAC benchmarked programs, such as Cefetra CRS 3.1 or Cargill Triple S. The CGF Sustainable Soy Sourcing Guidelines include these programs as a minimum first step to verify legality.*

Recommendations

- A first step to assure the use of responsible soy use in your supply chain, is to conduct a materiality or priority assessment*. We compliment the four UK retailers that have used KPMG's Soy Reporting Tool and encourage others to gain insight into their soy volumes across products, as well as suppliers involved, origin of the soy and level of verification against no deforestation or sustainability requirements.
- Insight into the soy volumes used in retail products and their supply chains can help to prioritise efforts to reduce deforestation from soy production. It also helps to accurately report on the amount of soy used.
- It is recommended for all retailers to calculate the soy volumes in tier 4a (meats in processed food products) category. Our results show that a large part of total retail soy usage falls in this tier.
- We recommend retailers to work more closely together with the key players in their supply chain of meat (tier 2 products) and eggs and dairy (tier 3 products). These suppliers, feed manufacturers and traders are typically easy to reach by the retailer. We have found that there are only a few key feed manufacturers and traders that handle most of the soy volume in these supply chains.
- A large part of the soy volumes for these four UK retailers originates from South America, where the risk of deforestation due to soy expansion is highest. Efforts from suppliers to actively require soy that have not contributed to deforestation are therefore still needed.

* Source: CGF, The Sustainable Soy Sourcing Guidelines, second edition

Appendix



Project insights

The process of completing this pilot was highly informative:

- 1 Multiple stakeholders**
 - Working with several retailers and the IDH gave opportunities to challenge the various aspects and to get a more consistent approach. E.g. the format and options of the supplier survey and assumptions
- 2 Data structure**
 - Where the retailer ingredient data comes in QUID type format there are a lot of synergies when working on the soy pilot tool, but due to different categorisations and data fields there were some significant differences in the models
- 3 Retailer data**
 - Obtaining retailer data can be difficult
 - Product data doesn't always match up with sales data making it difficult to evaluate the quantify the total amount of an ingredient sold
 - QUID data is not very granular and means some of the ingredients cannot be found
 - However, there can be similarly difficult challenges to overcome when detailed product specifications are provided
- 4 Supplier responses**
 - Suppliers, on the whole, have been able to provide good quality data within the expected timelines, 4-6 weeks
 - 39 separate suppliers responded, some to multiple retailers
 - Some of the big suppliers are very interested in understanding their soy footprint and were keen to support the project
 - Data quality - as with most surveys, even the strongest controls on data inputs cannot stop some respondees making typos – only by analysing the data with an interactive tool were we able to easily spot outliers
 - We received encouraging feedback from some of the retailers regarding the joint approach

Key assumptions

There are some over-arching assumptions which have been made in the process of creating this pilot. The table below shows those which apply across all retailers.

No.	Assumption	Comments
1	When allocating feed or soy to an animal part, assume that 100% of feed is allocated to the edible meat of the animal.	This was an assumption in the soy supplier survey
2	Wastage has not been considered as part of this analysis.	It was agreed with retailers that they could apply their own wastage figures against the totals in this report.
3	Soy quantities in the supplier survey were given as a kg weight, even when supplied as soy oil	Suppliers were asked to assume 1,000 litres of soy oil weighs 0.917 metric tonnes
4	Soy volumes on the 'black box tool' are taken from supplier responses only	That is, total soy relates to the specific responses received. We have not scaled this up to represent the entirety of the supply chain of the retailers
5	One heavily weighted response for Pork has been removed from the analysis due to its size	It is orders of magnitude larger than other responses and completely dominates the output
6	Soy lecithin comprises 0.7% of the weight of a chocolate bar, but total amounts are not included in the total soy values	Source: Mondelez. IDH estimate that 1.2-1.8% of soy oil is lecithin. however no scaling has been used in the outputs. Cargill state that 'Plant lecithin is a by-product' and therefore we have not included it in the total soy figure, but kept it separately
7	When required, we have converted liquids to solids at a rate of 1 Litre = 1 kg	This allows conversion into a weight
8	A lookup list (provided separately to retailers) has been used to identify relevant and non-relevant ingredients	For example, 'Beef Tomato' can give a false reading for beef and is therefore removed
9	RTRS/ProTerra/ISCC+ certificates were grouped together as 'higher level'	

Key assumptions (cont.)

No.	Assumption	Comments
10	'FEFAC Benchmarked' certificates were grouped together.	BEMEFA, AAPRESID-AC, USSEC-SSAP, Cefetra CRS 3.1, ISCC EU, AIC FEMAS, Cargill Triple-S, ADM Responsible Soybean Standard.
11	Other responses, which stated a certificate not mentioned above, were grouped as 'Non-FEFAC Benchmarked'.	
12	Eggs were assumed to weigh 55g.	This is relevant for the soy intensity calculation when comparing eggs with other products.
13	Assume only Salmon and Prawns are farmed – unless it says 'wild' or 'line caught' in the title.	If the supplier has provided survey data for these products then the data is used.
14	A lookup list (provided separately) has been used to identify brand types.	For example, Low-cost, Premium etc.
15	The most accurate soy intensity figure is used where possible.	Intensity matching goes by this rule: <ol style="list-style-type: none"> 1. Product data matches from supplier and retailer data. 2. Average intensity for the retailer, animal type, and supplier. 3. Average intensity for the retailer, and animal type. 4. Average intensity for the animal type and all retailers, and suppliers.
16	In creating the analysis we have relied upon the data provided by a large number of suppliers.	As part of this project we provided clear instructions for the suppliers to follow when providing their submissions; we also held Q/A sessions to help clarify queries. However, in some cases we have still had challenges regarding the accuracy of the outputs. To address these we have reverted to suppliers in many cases to double check their submissions, which has often led to us updating the figures. Despite this, there may still be some errors which are beyond our reach as we are ultimately reliant on suppliers providing us with the correct data.
17	The weighted average Soy Intensity is used in this report. This takes the average based on the total soy tonnage per protein as a proportion to the total tonnage of protein produced.	The alternative would be to take a straight average. This is an average of the soy intensities provided by each supplier – it does not take into consideration the tonnage of protein produced.



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