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RESEARCH ARTICLE – DOSSIER OPEN ACCESS

LOCAL SOYBEAN SUPPLY CHAIN
APPROVISIONNEMENT LOCAL EN SOJA

DOSSIER

Domestic soybean to compensate the European protein deficit: illusion or real market opportunity?

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Abstract – This article is an attempt to analyse the potential for EU-grown soybean to become a credible market alternative in order to reduce the European protein deficit. The analysis is conducted from the perspective of the European feed industry. The market analysis shows that the EU has very little control on its soybean supply. Moreover, the nature of the EU protein deficit calls for an increase of the availability of protein-rich ingredients. With a favourable outlook from the point of view of the demand, the most relevant growth model should be determined in order to improve the competiveness of soybean for EU arable crops farmers. The two main options are niche markets as a first step to reach mainstream supply or a more direct approach towards mainstream supply which would very probably require public support.

Keywords: EU soybean / EU protein deficit / competitiveness / niche market / mainstream supply

Résumé – Le soja local dans l'optique de réduire le déficit protéique européen : illusion ou alternative de marché crédible ? Cet article s'efforce d'analyser le potentiel du soja cultivé en Europe pour constituer une alternative de marché crédible dans l'optique de réduire le déficit protéique européen. L'analyse est conduite du point de vue de l'industrie européenne des aliments composés pour animaux. L'analyse de marché montre que l'Union Européenne n'est pas en mesure de maîtriser ses approvisionnements en soja. De plus, la nature du défit protéique européen renforce le besoin d'augmenter la disponibilité des matières premières riches en protéines. Avec des perspectives favorables du point de vue de la demande, il importe maintenant de déterminer le modèle de croissance le plus adapté de façon à améliorer la compétitivité du soja pour les cultivateurs européens. Les deux options principales sont les marchés de niche, comme étape intermédiaire vers le marché principal, ou une approche plus directe vers le marché principal qui nécessitera très probablement un soutien public.

Mots clés : Soja européen / déficit protéique européen / compétitivité / alimentation animale / marché de niche / marché principal

1 Introduction

This article follows up on a previous OCL article (Martin, 2014) which described the way forward for protein supply, from the perspective of the European compound feed industry. This article is an attempt to analyse more in depth the possibility to use EU-grown soybean as a credible alternative to reduce the European protein deficit.

After a brief description of the global soybean production and the EU soybean consumption and production, the second section of this article looks at the European protein deficit from a different perspective. In the third and fourth sections, we will then assess the factors which can have an influence on the European soybean production, respectively from a supply/demand perspective. As a conclusion, this article will compare two growth models for the European soybean production, one focusing on high-value niche markets and the other one aiming at supplying the mainstream market.

2 Overview of global and EU soybean production

2.1 Global production and trade

According to USDA[1], the world soybean area and production have grown steadily over the past ten years and are

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[1] USDA : United States Department of Agriculture.

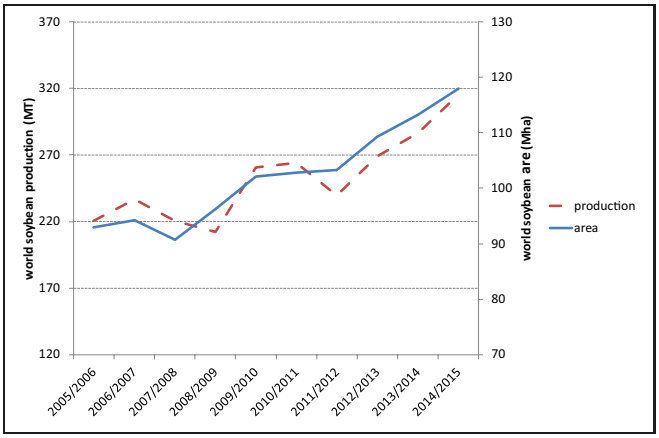

Fig. 1. Evolution of world soybean area and production (source: USDA).

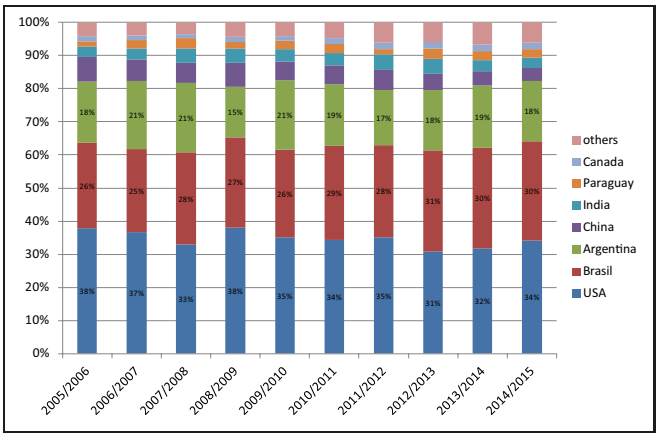

Fig. 2. Evolution of the share in world soybean production (source: USDA).

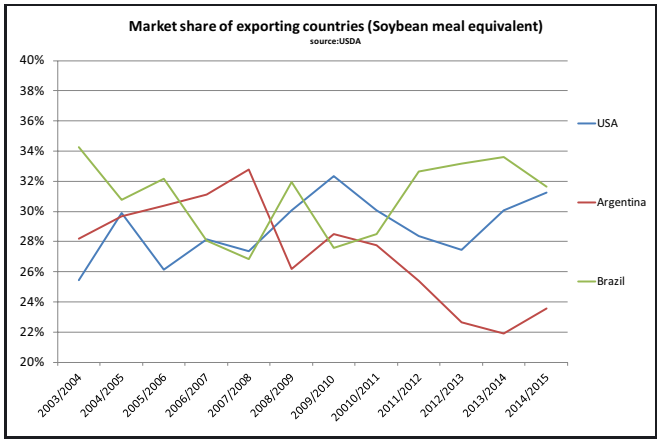

Fig. 3. Evolution of market share of main soybean exporting countries (source: USDA).

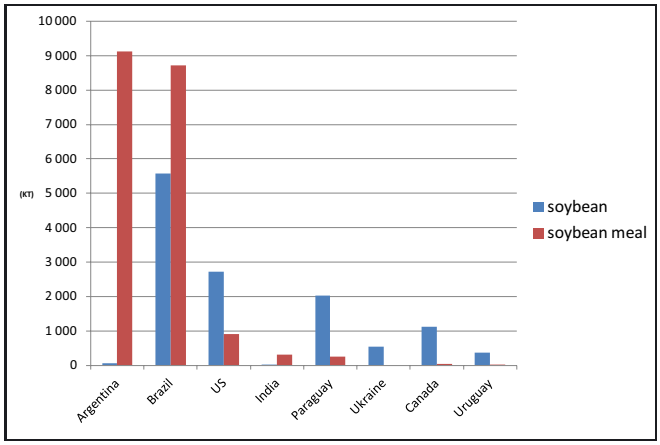

Fig. 4. main EU soybean suppliers (thousand tonnes, source: Global Trade Information Service 2013/2014).

estimated at 118 million hectares for the 2014/2015 campaign (Fig. 1). The latest five-year global supply and demand projections from the International Grains Council expects this growth to continue during the next five years, but a slower pace.

The United States, Brazil and Argentina are the main soybean producing countries, as shown in Figure 2. In 2014/2015, the United States, Brazil and Argentina represent respectively 34%, 30% and 18% of the world soybean production. Over the past ten years, the share of Brazil in the global soybean production has slightly increased to the expense of the United States.

Quite logically, the United States, Brazil and Argentina happen to be also the main soybean exporting countries. Their relative importance in soybean trade is even higher for trade than for production as show in Figure 3. When considering the trade of soybean and soybean meal, Brazil has been the leading country for the past four years.

2.2 European Union soybean consumption

The European Union (EU) imports on yearly average 13 million tons of soybeans and 18 million tons of soybean meals from different origins. As shown in Figure 4, Brazil, Argentina, the United States and to a lesser extent Paraguay and Canada are the main EU soybean suppliers.

Since the 2009/2010 campaign the European Union has lost the status of the main soybean importer on the global market to China. The concentration of soybean exporting countries and the decreasing importance of the EU on the global soybean market result in a rather low level of control of the EU on its soybean supplies.

2.3 Focus on EU soy production

According to Copa-Cogeca[2] (Comité des organisations professionnelles agricoles, Comité général de la coopération agricole de l'Union européenne) the EU soybean acreage reached 490 000 hectares and 416 000 hectares for the 2014 and 2013 harvests respectively. For the 2015 harvest, the acreage is forecasted to go down to 477 000 hectares.

As described in Figure 5, in 2014 there were seven Member States growing more than 10 000 hectares of soybean

[2] European Union of european farmers (COPA) and agri-cooperatives (COGECA).

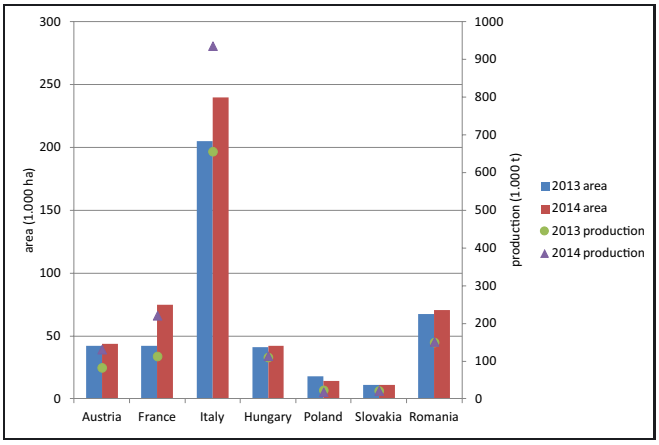

Fig. 5. Main EU soybean-producing countries (source: Copa-Cogeca, only countries growing more than 10 000 hectares are mentioned).

and five member states whose soybean production was above 100 000 tonnes. In 2014, Italy was by far the largest EU soy producer followed by France whose production increased dramatically compared to 2013, Romania, Austria, and Hungary.

The total EU-28 soybean production in 2014 is reported at 1.75 million tonnes. This figure is to be compared with the EU annual soy imports, *i.e.* 13 million tonnes of beans and 18 million tonnes of meal.

3 The EU protein deficit: need for concentrated protein sources

The reasons which have led to the current EU protein deficit have been described in detail in a previous OCL article (Martin, 2014). The main ones are listed below:

- Removal of EU import duties for oilseeds in 1962.
- Limitation of EU support to oilseeds following the Blair House agreement in 1992.
- Reduction of coupled support through the reform of the Common Agricultural Policy (CAP) in 1992.
- Decoupling of direct payment in the 2003 CAP reform.

In the same article we called for a more sophisticated approach for calculating the EU protein balance sheet in order to take some of the main feed ingredients such as forages and cereals into account.

Further work is still needed in that regard but some preliminary results are already available[3] (Toublanc, Poinot, Uittenboggaard, 2014, personal communication). Taking cereals and forages into account in the EU protein balance sheet shows that the level of EU protein self-sufficiency is around 80%, as shown in Figure 6. The approach which has been used for these calculations is based on the crude protein content of the different feed ingredients and does not capture for instance the protein digestibility and the amino-acids composition.

[3] Protein self-sufficiency in the European Union: considering cereals, protein-rich and forages. Xavier Toublanc, Sophie Poinot, Gera Uittenboggaard, 2014, personal communication, not published.

These results should be interpreted with caution. In particular, estimating the contribution of forages to the supply of protein at EU level comes with a lot of uncertainties. They show however that it is more relevant to talk about the EU deficit in protein-rich ingredients and that restricting the approach to a simple protein deficit can even be misleading since the reality is more complex.

Moreover these results show that sources of protein with low or medium protein content are already available from EU domestic production. Stimulating EU protein production should therefore be targeted towards concentrated sources of protein, like soybean.

4 Factors influencing the demand for EU soy

4.1 Easy to use for feed manufacturers

There are three main criteria determining the selection of feed ingredient by a feed manufacturer and its use in the various compound feeds he will produce: (i) the safety of the feed; (ii) its nutritional value and (iii) its price competitiveness. On top of these three criteria the availability throughout the year and the regularity of supply are also taken into account by feed companies. Market-oriented criteria (*e.g.* organic production, non-GM demand) are also considered by the compound feed manufacturer. A typical compound feed mill consists in several steps more or less complex which allow elaborating specific formulation from a lot of individual ingredients (Fig. 7).

Compound feed mills have usually limited storage capacity. The bigger silos are used for the main ingredients such as cereals or oilseed meals while smaller silos can be dedicated to ingredients which are incorporated in smaller proportions in feed diets.

When deciding to dedicate a silo to a particular ingredient, the regularity of supply is an important criterion for the compound feed manufacturer. It would not be economically viable to dedicate a silo for an ingredient that is not available on a regular basis. This aspect can be a limiting factor for the use of EU protein crops such as lupines or peas which are available in small quantities with therefore a risk of irregular supply.

Provided that the EU soybean would meet the three main requirements listed above, it would be possible to substitute imported soybean meal with domestic soybean meal in feed diets using the same silos at the plant level. In addition, soybean meal is an ingredient that is used by feed manufacturers on a regular basis and well known in particular by feed formulators. There would be no obstacle to the uptake of EU soybean meal by feed operators from a technical and operational perspective at plant level if the safety, nutritional value and competitiveness are met.

4.2 Locally-produced food

In 2011, the European Commission released its proposals for the CAP reform and conducted a Eurobarometer survey to assess the opinion of European citizens on the main aspects of the reform proposals. The poll interviewed 26 713 adults throughout the European Union, enough for a representative

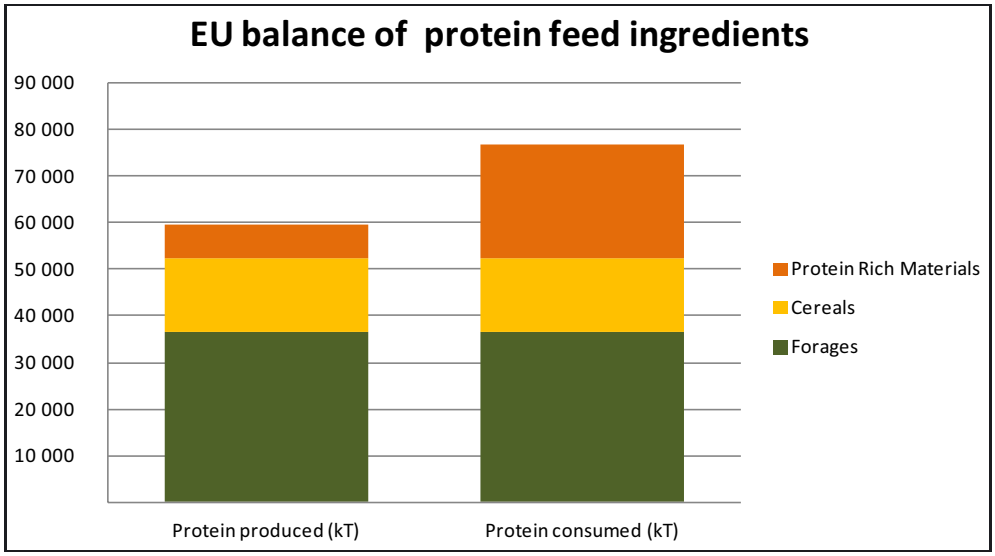

Fig. 6. European Union protein balance sheet (FEFAC, 2014).

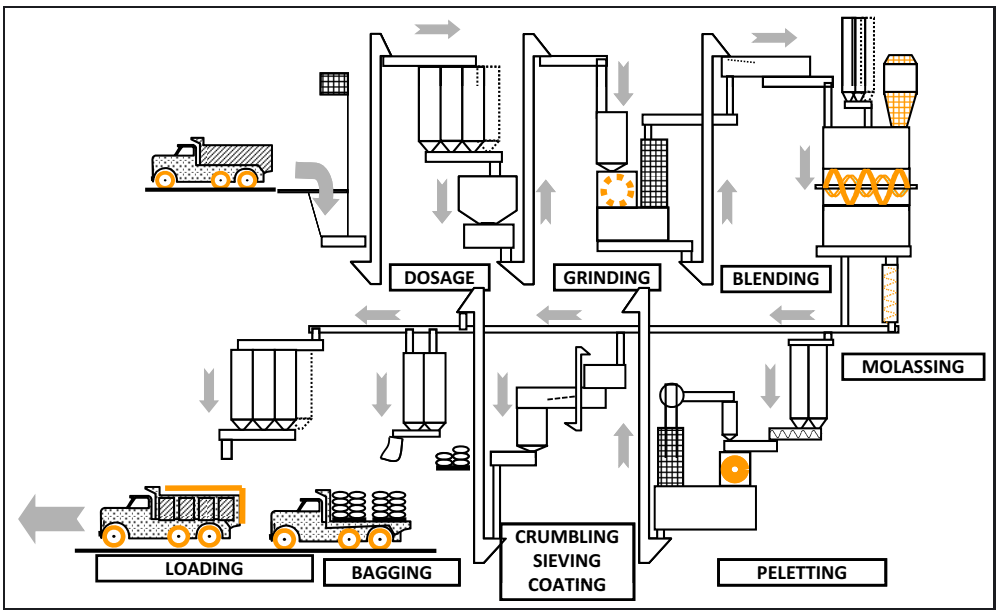

Fig. 7. Diagram picture of a compound feed mill functioning (adapted from TECALIMAN).

sample in each Member State. Among the five questions, one addressed specifically local food production, which is one of the arguments which is often put forward to stimulate EU protein production, like for example in the European Parliament resolution about protein deficit from March 2011 (European Parliament, 2011). As a result, nine out of ten people agreed that buying locally-produced food is beneficial.

According to a French survey from 2012 (Sainte-Marie, 2013) the main reasons put forward by consumers to buy local food are:

- To support local agriculture and economy.
- The taste and safety of food purchased.
- Environmental reasons, in particular less transport and better agricultural practices.

In a more recent study, the European Commission Joint Research Center analysed the short supply chains and local food systems in the EU. This report states that the definition proposed by the European Commission for short food supply chains is "the foods involved are identified by, are traceable to a farmer. The number of intermediaries between farmer and consumer should be "minimal" or ideally nil".

Locally-produced soy can be used as differentiation element for the marketing of animal products. There is however a lot of feed ingredients entering the composition of feed diets and sourcing all feed ingredients locally is a very demanding constraint. There is a risk that "locally-produced soy" is misinterpreted as perceived by consumers as "one hundred percent locally-fed" . Such an approach is indeed very difficult to

Table 1. Results of the survey conducted by FEFAC on European Union demand for non GM compound feed (Source: FEFAC, 2015).

Countries without significant market demand for non-GM compound feed (beyond organic market): • Belgium • Czech Republic • Hungary • Ireland • Netherlands • Slovakia • Spain		
Country	Drivers	Trend
Austria	laying hens (80% non-GM) broilers (100% non-GM) dairy (95% non-GM)	increasing demand for non-GM feed
Denmark	broilers (25% non-GM)	Stable
Finland	dairy (100% non-GM) poultry (15% non-GM)	Stable
France	cattle (30% non-GM) dairy (15% non-GM) poultry (10% non-GM)	Stable
Germany	broilers (75% non-GM) laying hens (40% non-GM) dairy (15% non-GM)	increasing demand for non-GM dairy feed
Italy	poultry (15% non-GM) dairy and cattle (10% non-GM)	Stable
Poland	broiler (10% non-GM)	Stable
UK	Poultry (20%)	Decreasing demand for non-GM poultry feed
Countries for which information is not available • Bulgaria • Croatia • Cyprus • Estonia • Greece • Latvia • Lithunia • Luxembourg • Malta • Romania • Slovenia		

apply for mainstream feed supply chains which can be very long and complex but can be envisaged for niche markets with high added value.

In addition the consumers' desire to buy local food should be challenged against the willingness to pay for the extra costs.

4.3 Non-GM demand

The possibility to supply the EU non-GM demand for soybean meal is often mentioned as a factor which could stimulate the EU soybean production. The non-GM premium could indeed contribute the competitiveness gap between imported and domestic soybean. This premium has been fluctuating over the years and has currently reached a relatively high level around 100 € per tonne.

In 2012, the European Feed Manufacturers' Federation FEFAC[4] conducted an EU-wide survey in order to assess the size of the non-GM compound feed market[5]. The conclusion at the time was that the EU aggregate demand for non-GM compound feed represented approximately 15% of the compound feed market, *i.e.* 23 million tonnes. This study has been updated in March 2015 and the main results are presented below (Tab. 1). Three groups of Member States are distinguished, the countries without a significant demand for non-GM compound feed and the countries with a demand for non-GM compound feed[6]. For the latter ones, the drivers for the non-GM compound feed and the corresponding trend are identified. Finally, the third group corresponds to the countries for which no information is available.

These results show contrasting developments in some key markets. For instance, Germany and Austria show increased

[4] Fédération Européenne des Fabricants d'Aliments Composés.

[5] "Non-GM feed" means feed that is not labelled according to Regulation (EC) 1829/2003.

[6] No information available for Bulgaria, Croatia, Cyprus, Estonia, Greece, Latvia, Lithuania, Luxembourg, Malta, Romania and Slovenia.

demand for non-GM dairy feed, while non-GM feed demand (mainly poultry feed) in the UK is shrinking. Compared to 2012, the momentum has changed in some countries but the overall EU demand for non-GM compound is still estimated to represent around 15% of the market.

The corresponding demand for non-GM soybean meal is probably a bit lower, since non-GM requirements can sometimes be achieved by not using soybean meal in the diet, especially for fattening pigs. FEFAC estimates that the average EU inclusion rate of soybean in compound feed is approximately 16%. So, assuming that between 10 and 15% of the soybean meal used in compound feed is actually non-GM, this represents a market size of 2.4 to 3.6 million tonnes of soybean meal, to be compared with the EU soybean production, *i.e.* 1.75 million tonnes in 2014.

In theory there is therefore a growth potential for domestic soybean production, in order to meet the demand for non-GM soybean meal in compound feed. Some limitations need however to be taken into consideration:

- A corresponding demand for non-GM soybean oil is necessary in order to optimize the non-GM premium effects.
- In order to be eligible for the non-GM market, the 0.9% threshold of adventitious GM presence defined in the European legislation[7] has to be respected. This is only achievable in dedicated oilseed crushing facilities (the non-GM soybean meal from Brazil which is currently used for the non-GM market is crushed in Brazil and then exported to Europe. EU crushing plant crushing imported beans mainly process GM imported beans). This raises the question of the size and economic viability of these facilities.
- Although important in terms of consumer demand, the non-GM aspect is extremely specific. The non-GM feed market will have increasingly to compete against supply schemes offering a more comprehensive sustainable approach by looking for example at the social and environmental dimensions.

4.4 The environmental perspective

The growing global demand for livestock products is putting pressure on natural resources such as land and water, which are limited. From that perspective, the capacity to first report and then improve the environmental performance of feed and livestock products is essential.

In a study published in 2014, the University of Wageningen together with Blonk Consultants assessed the effect on carbon footprint of replacing soybean meal from South America in compound feed by European protein sources (Boer, 2014). The selected protein sources included high protein sunflower seed meal, poultry processed animal proteins, dried distiller grains (co-product of bio-ethanol production), soybean meal cultivated in the Netherlands and in Ukraine as well as proteins from insects, algae and bacteria.

The study calculated optimised feed diets (using pig diets as an example) on the basis of price and nutritional values and reported the corresponding carbon footprint, using mainly the Dutch Feedprint life cycle assessment (LCA) database as a source of information (Tab. 2).

On the basis of an attributional life cycle assessment[8] approach, the study concluded that there are limited options to replace soybean meal from South America in compound feed for fattening pigs by alternative European proteins without increasing the carbon footprint.

The whole study cannot be summarized here and its limitations should be taken into account properly. These results should be therefore considered cautiously and cannot be generalised. They show however that the soybean meal characteristics, considering price, nutritional values and carbon footprint offer an interesting combination meaning that soybean meal is an essential feed ingredient when considering the improvement of environmental performance. When imported soybean meal is replaced by soybean meal cultivated in the EU, with lower transport distances, these effects can be amplified.

5 Factors influencing the offer

5.1 Common agricultural policy

One of the main measures of the new Common Agricultural Policy is probably the so-called "greening" of direct payments to farmers. The greening measures define agricultural practices which are beneficial for the climate and the environment:

- Crop diversification.
- Maintaining existing permanent grassland.
- Having ecological focus areas on the farms.

The crop diversification measures are described in article 44 of Regulation (EU) No. 1307/2013 of 17 December 2013[9], the key ones being: when the arable land of a farm covers more than thirty hectares, there shall be at least three different crops on that arable land. The main crop shall not cover more than 75% of that arable and the two main crops together shall not cover more than 95% of that arable land.

These measures could play a stimulating role for the soy production in Europe in particular in areas where maize is currently the dominating crop and where climate and soil conditions could be suitable for soy production. A comprehensive impact assessment of the crop diversification measure which has entered into force on 1st January 2015 is however still lacking, so it is difficult to quantify the potential effects on EU soybean acreage. Moreover the recent decision in France to set

[7] Regulation (EC) No. 1830/2003 of the European Parliament and the Council of 22 September 2003 concerning the traceability and labelling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms and amending Directive 2001/18/EC.

[8] Life Cycle Assessment is a technique which provides the compilation and the evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle (ISO 14040:2006).

[9] Regulation (EU) No. 1307/2013 of the European Parliament and the Council of 17 December 2013 establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy and repealing Council Regulation (EC) No 637/2008 and Council Regulation (EC) No. 73/2009.

Table 2. Carbon foot print of a reference optimised pig diet including imported soybean meal – scenario 1 – and of the same diet based on different protein feed ingredients – scenario 2 to 10 – (source: Boer, Wageningen study, 2014).

Compound feed	Carbon footprint excluding land use change[10] (kg CO2 eq. kg^{-1})	Carbon footprint including land use change (kg CO2 eq. kg^{-1})
Scenario 1: reference scenario with soybean meal from South America	595	783
Scenario 2: inclusion level of soybean meal from South America restricted to 6%	606	807
Scenario 3: inclusion of soybean meal from South America is not allowed, replacement by high protein sunflower seed meal (maximum: 12,5%)	627	817
Scenario 4: inclusion of soybean meal from South America is not allowed, replacement by processed animal proteins from poultry (maximum: 3%)	591	775
Scenario 5: inclusion of soybean meal from South America is not allowed, replacement by dried distillers grains (maximum: 7,5%)	626	819
Scenario 6: replacement of soybean meal from South America by soybean meal cultivated in the Netherlands	580	767
Scenario 7: replacement of soybean meal from South America by soybean meal cultivated in Ukraine and crushed in the Netherlands	592	782
Scenario 8: replacement of soybean meal from South America by protein from insects	> 717	>946
Scenario 9: replacement of soybean meal from South America by defatted algae	> 611–623	>795–807
Scenario 10: replacement of soybean meal from South America by bacterial single-cell protein	> 644–739	>825–920

up ad hoc measures for monoculture maize-cropping areas can be interpreted a sign showing that the impact of the crop diversification measures on the EU soybean acreage would be rather limited.

The other greening measure which could have an impact on EU soybean acreage is the requirements for farmers with more than 15 hectares of arable land to ensure that at least 5% of their holdings consist of ecological focus areas. With nitrogen-fixing crops areas being included in the list of ecological focus areas mentioned in Regulation (EU) No. 1307/2013 of 17 December 2013, this could again stimulate EU soy production. Member States have however been granted with the possibility to pick and choose from this list in order to define ecological focus areas at national level. This has the potential to undermine the impact of the measure on EU soy acreage.

In addition to the greening measures, the possibility for Member States to use at most 10% of their direct payments envelope for voluntary coupled could also be beneficial to protein crops including soya. According to the European Commission, 16 Member States decided in 2015 to grant a direct coupled support to protein crops, representing 12% of the envelope available for voluntary coupled support.

[10] Land use change refers to the change in the purpose for which land is used by humans (*e.g.* between crop land, grass land, forest land, wetland) PAS 2050:2011, 3.27.

5.2 Biofuels policy

The availability of protein-rich co-products such as oilseed meals or dried distillers grains is strongly influenced by international and EU policies on biofuels.

During the past decade, the rather favourable EU political framework for biofuels led to a significant increase of the availability of such co-products, and in particular of rapeseed meal. This was accompanied by an increased competition for the access to agricultural commodities, adding pressure on prices.

The EU biofuel policy did not benefit so far to the EU-cultivated soybean production and it can be asked whether this situation will change in the future.

The Renewable Energy Directive (RED) and the Fuel Quality Directive (FQD) are the main legislative texts determining the EU policy on biofuels. Beyond 2020, the RED will be replaced by a new legislation dealing with climate and energy. The European Council already adopted targets leading to a 40% reduction of greenhouse gas emissions for the 2005–2030 period and to a share of 27% of renewable energy by 2030 (European Council (23 and 24 October 2014) Conclusions on 2030 Climate and Energy Policy Framework). These targets have however not been translated yet into concrete measure. Such an uncertainty will not stimulate the investments which could lead to an increase of biofuel production from domestic soybeans.

Table 3. Competiveness comparison between oil or protein crops and cereals in the European Union (source: EIP group, 2014).

		Yield needed to be competitive against		Yield increase to be competitive against	
Crop	Current yield (t/ha)	Wheat	Maize	Wheat	Maize
Soya	2.7	3.4	4.3	26%	59%
Rape	3.1	3.1	3.9	0%	26%
Sunflower	2.2	2.7	3.4	23%	55%
Lupin	1	4.1	5.1	310%	410%
Pea	2.7	4.8	6	78%	122%
Field bean	2.7	4.5	5.7	67%	111%
Alfalfa	40.2	43.6	54.5	8%	36%

From a more short-term perspective the current revision of the RED will shape the biofuels policy context until 2020. The revision of the RED will lead to a capping of the production of crop-based biofuels and to some sort of consideration of the ILUC factor[11] for the greenhouse gas savings provided by biofuels.

Taking into account ILUC could give a competitive advantage to EU soybean versus soybean from South America or biodiesel from palm oil. On the other hand, in order to increase its market share in the biofuel segment, EU soybean would have to price-competitive against other biofuels feedstocks. This is a criterion which is difficult to fulfil under the current circumstances.

6 Conclusion: niche or mainstream supply?

The lack of competitiveness is a clear factor limiting the EU production of soybean, and of all protein crops. The CAP reform has led farmers to base their sowing decisions on economic output which is favourable to cereals such as wheat and maize versus protein crops. The loss of interest for protein crops also triggered a lack of investment to develop performing varieties of protein crops and, resulting in increasing yield gaps with cereals.

As part of the European Innovation partnership for Agricultural Productivity and Sustainability (EIP-AGRI), the focus group on protein crops was launched by the European Commission in 2013.

This group assessed the possibility to improve the profitability of protein crops in Europe so that they can be more attractive for famers while fulfilling the competitiveness requirements of the feed industry. As part of this assessment, the group calculated the yield which would be required for protein crops in order to be competitive with wheat and maize based on the price of oil, protein and starch (EIP focus group, 2014). It is important to bear in mind that there is an important geographical variability for these calculations and that the crop profitability evaluation has been limited to gross income comparisons. It shows in particular that EU soybean would need on average a yield increase of 26% and 59% in order to be competitive with wheat and maize respectively (Tab. 3).

[11] Indirect Land Use Change: occur when a demand for a certain land use lead to changes outside the boundaries of the system that is considered. These indirect effects can be assessed mainly by means of economic modelling of the demand for land or by modelling the relocation of activities on a global scale. (adapted from Product Environmental Footprint Guide, 2013).

Further to the EIP focus group report, a workshop was organised with stakeholders on 25–26 November 2014. The participants in the workshop agreed on recommendations in order to (i) close the financial yield gaps and (ii) build a market (EIP workshop, 2014). They are listed below:

EIP recommendations on closing the financial yield gap:

- Regulations that stimulate the adoption of the cultivation of legumes by farmers.
- Education and training for farmers, advisors and teachers.
- Long-term public breeding programme.
- Research on varieties with cold and drought resistance.
- Protein crop repository.

EIP recommendations on building a market:

- Develop knowledge of local alternatives with eye on quality and consistency.
- Develop the EU nutritional matrix for new protein ingredients.
- Market price system: predictability and quality.
- Fractionation technology development.
- Food grade processing integrated with feed processing.

The remaining question is how to fund the research which is necessary in order to improve the competitiveness of EU protein crops including soya. This question is a kind of "chicken and egg" issue since a small market does not provide a strong incentive for stakeholders to invest in research and, reciprocally, without investment in research the EU protein crops market will not be able to grow.

The previous section showed that the outlook for EU soybean is rather favourable, from the perspective of the demand. However, the factors which have been described and may have a positive influence on the demand such as the consumers' desire for locally produced food, the non-GM demand or the demand for environmentally friendly products constitute very specific market segments. These are high value products, in other words these are niche markets. By definition a niche market is a small market, so the question can be asked whether a niche market strategy can be the right approach to reach the critical mass which is required to trigger further investment in research and then close the competitiveness gap.

On the other hand it can be argued that high value niche market can be a necessary step in order to compensate for the lack of competitiveness and then facilitate the growth and the EU soybean and protein crops markets. The main risk in that approach is that if the niche market strategy is prioritized, the need to invest in research will not be so pressing, especially

because the competiveness gap would be closed using other market tools.

A mainstream market approach will facilitate the uptake of EU produced soybean meal by the feed industry. Similarly, there is a risk to undermine the possibility for market growth with strategies which does not involve the compound feed sector such as short supply chains for locally produced food. As pointed out by the experts who participated in the EIP workshop, establishing synergies for research through long-term public breeding research programmes could be an interesting option. Supplying the mainstream market can then be seen as objective which is easier to justify, from a tax-payer perspective, as compared to high-value market segments.

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