

Reducing Europe's dependency on imported proteins

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Who are Soya UK?



- Seed merchants based in Hampshire, UK.
- Specialists in niche crops and protein crops.
- Involved in Lupins, Soya, Vetch, Triticale, Forage mixtures & Millet.
- UK and European agents for a number of plant breeders, so commercialise lupin & soya varieties in a number of other countries.
- Supply most of the lupin and soya seed sown in the UK.

E.U. Soya Dependency



- For many, the EU's dependency on soya is a new problem, but in fact, it isn't.
- Since the EU banned the use of animal proteins in January 2001, the EU has had a fairly consistent level of dependency on imported soya meal. Back in 2003, the Soya imported from North and South America accounted for around 67% of all the supplemental protein fed to all livestock in the EU. Right through to 2016, that figure has remained remarkably similar, and today it is around 63% of all the supplemental protein fed to all livestock within the EU.

Increasing Cost of Dependency



- Interestingly, what has changed is not the level of dependency, but the cost.
- From 2001 - 2007 a tonne of soya meal in the EU cost around 200 Euros. Today in 2016 that cost is around 400 Euros. The cost of soya has roughly doubled in real-terms since 2007. Carbohydrates such as wheat and maize have been up and down, but today their real-term values are effectively the same as they have been for many years. This is not true of the protein markets, so the EU's dependency on soya has moved into ever-sharper focus as the cost has risen.
- Since 2008, soya costs have risen to the point where many EU livestock farmers are unable to make a living, and it is these rapidly increasing costs that have then increased the level of awareness.

Future Cost of Dependency



- In the same way that soya costs have rendered many farming models uneconomic through the rising protein costs since 2007, we should consider the future price prospects.
- Soya consumption worldwide will continue to rise, but more slowly.
- Soya production has already increased dramatically in most suitable countries and climates (except China).
- Most genetic and agronomic improvements have been made.
- Production will increase, but demand will increase more rapidly.
- Inevitably, soya costs will continue to rise, making our dependency more and more expensive.
- This level of dependency on a single protein source from such a narrow supply base, is strategically and economically dangerous, and the problem will get worse over the next few years.

Cost Illustration



- An analysis of the accounts of an average UK dairy farmer reveals that he currently spends £185 /Ha on bought-in feedstuffs. This is his number one cost, with his second-highest cost being labour at around £90 /Ha.
- In other words – his highest cost is more than double his second-highest cost. Why is he spending so much money on bought-in feed? It isn't for its energy value – carbohydrates are relatively cheap – as are the minerals in the feed. The reason he is spending this large amount of money, is protein.
- Protein cost is the reason European livestock farmers are struggling to make money.

Soya Dependency - How do we fix it?



The strategy should be a multi-disciplinary approach;

- Maximise production of soya within Europe. This can be done without necessarily permitting the use of GMO's since the herbicide options do exist to allow effective and economic production of non-GMO's which will achieve similar yields. (Interestingly, the high price of soya has led to a resurgence of EU soya production with Soya now finally offering a decent gross margin to farmers in comparison to wheat, barley etc, which are currently relatively low value.
- Maximise the production of lupin protein - and encourage the use of lupins in forage, which is again, one of the special features of lupin.
- Maximise the production of peas and beans as crops, and investigate ways of upgrading the protein content and quality of peas and beans in order to make them a more practical option for soya replacement.
- Make full use of foliar protein sources, such as clovers, lucerne and vetches.

Lupins – an undervalued resource



- In theory, lupins ought to be a huge crop in Europe and around the world, but for technical reasons of disease control and genetic stability, the crop has only really come into its own over the last 20 years.
- As a latecomer, the acreage has remained small, however – lupins have several characteristics which make them very useful to European farmers
- Nutritionally, they are the only crop that can truly replace soya.
- They will grow in all parts of Europe including the very north where soya and other crops are not viable. Lupins can be used as a dry crop or in silage in Scotland, Denmark, Finland, Estonia, etc where soya is not viable, and give soya-quality feed.
- They are free of any anti-nutritional compounds, which means that they can be grown and used on the same farm without any special processing. This includes the ability to ensile them at a growth stage where the proteins have achieved “soya-grade” quality.
- Lupins are effective nitrogen-fixing legumes like soya, peas and beans.
- They are easy to grow in all climates and soil types using existing, basic farm machinery.
- Nutritionally, whole lupins are lower in protein than standard soya meal - (38% for white lupin, versus 44% for soya meal) - however, lupin protein is very high quality and has good digestibility characteristics as well as a very positive amino-acid profile (being rich in sulphur amino-acids).

Soya Dependency - How do we fix it?



- The 1992 Blair House agreement was a major problem for soya since it categorised soya as an oilseed along with oilseed rape.
- As a result, the level of support has been disproportionately lower than other crops for many years.
- This has been a major factor in stifling the development of soya within Europe, and whilst reforms have helped by including soya in the greening category along with other legumes, it is important that soya is not shackled to the fate of oilseed rape within the EU in the long term.
- As long as soya remains shackled to the fate of oilseed rape, policy will always be made to the benefit of oilseed production, to the detriment of proteins.
- Basically, the 1992 inclusion was a huge mistake, and we need to work to undo that mistake.

Soya Dependency - How do we fix it?



- Review the current EU policy on energy cropping which allows farmers to grow oilseeds using untaxed hydrocarbon fuels in order to produce tax-favoured “energy crops”.
- This policy ignores energy realities such as energy balance calculations, and the fact that many legumes actually have a better energy balance than many so-called “energy crops”.
- Soya or lupin crops will fix in excess of 220kg of Nitrogen / Ha. This is the equivalent of 638 kg of Ammonium Nitrate which would require around 210 litres of natural gas to manufacture.
- This means the energy balance of soya and lupin is better than most energy crops, so why not give them similar credit??

Conclusions



- Our protein problem will become worse as the cost of our soya dependancy becomes more and more expensive.
- The ONLY solution is to increase protein production within the EU.
- Soya, and lupins are the two crops that will give equivalent protein quality.
- Peas and beans will provide an very valuable contribution and can be processed to improve their nutritional profile.
- Foliar proteins should be encouraged. Since the grain legume scheme of the early 1990's, foliar proteins have never benefited from any policies to encourage their use. This should be looked at.
- Other policy reforms to encourage protein crops should be looked at urgently as the 2008-2016 cost increases will continue, and EU production will suffer accordingly.



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Thank you