

Mindsets for sustainability – let's start with feed!

Nowadays it is hard to imagine European livestock production without soya-based feed. But this trend has had a massive impact on rural areas in the global South – the bulk of the soya fed to livestock in Europe is imported from Argentina and Brazil. That is not sustainable, says WWF's Birgit Wilhelm, who advocates a change in mindset.

Tofu, soya milk and soya sauce – those are the products we tend to think of when we hear the word soya. But only about one fifth of the soya produced worldwide is used as food. Very few livestock producers grow all the feed for their animals on the farmland they manage; many of the purchased feed compounds contain soya beans as the principal protein component. In Germany, approximately 20 per cent of the imported soya is fed to cattle, 30 per cent to pigs and 50 per cent to poultry. For years now, the highly specialised and export-oriented European livestock sector has been dependent on regular feed imports from South America. As that is where soya beans happen to grow most quickly and cheaply, many farm lobbyists do not consider this a problem. The worldwide division of labour in a globalised agricultural industry solely focused on economic efficiency is being upheld as a model for success. However, it is becoming increasingly evident that this model creates many losers on all sides and that a long-term sustainability perspective is lacking.

■ Soya production and its impacts

Global soya bean production has more than doubled over the past two decades and there are no signs of this trend abating. The area of land devoted to growing soya worldwide has increased to more than 100 million hectares, i.e. more than three times the territory of Germany. In 2013 more than 30 million tons of soya (mostly from Argentina and Brazil) were imported to Europe. Soya fields are pushing into valuable forests and rare savannahs such as the Brazilian Cerrado, the world's most species-rich savannah and Brazil's most important water source. Soya beans are mainly grown as a monoculture crop, resulting in massive adverse environmental impacts and causing a multitude of social problems. Moreover, there is also the issue of genetic engineering which has been enabling this intensive form of pro-



Birgit Wilhelm
Consultant for Sustainable Agriculture & Resource Management
WWF Germany
Berlin, Germany

duction. While the cultivation of genetically modified soya beans is prohibited in Europe, such soya beans and soya bean meal are being fed to European farm animals.

The soya bean is a member of the legume family and should not be continuously cropped. It is generally recommended that soya beans should not be grown more than one year in four on any one plot. However, such good farming practices are rarely encountered in South America. In Argentina more than 54 per cent of arable land is devoted to growing soya. Often soya beans are grown twice a year on the same plot. In order to achieve this, the first soya bean crop must ripen early and uniformly. The ripening process is accelerated by spraying herbicides to kill off the soya beans just prior to the first harvest, making the harvesting process quicker and easier.

Disease and weed pressure in the monocultures further increases pesticide usage. The considerable amounts of pesticides as well as fertilisers pollute watercourses and soils. Europe has "outsourced" the cultivation of its livestock feed crops. In the producer countries, a modern and professional soya industry has emerged which produces soya in an economically highly efficient manner. Unfortunately it does not take into consideration the social and ecological aspects of production. Sixty per cent of the soya bean meal produced in Brazil is exported to the EU. While soya which is imported into the EU for biofuel must meet certain minimum criteria under the EU RED (i.e. Round Table on Responsible Soy certification), the bulk of soya that reaches the EU for feedstuff does not have to meet any such criteria. This is a loophole that must urgently be closed. General soya production criteria are called for, no matter whether it ends up on European plates, in fuel tanks, or feed troughs.

■ We need more sustainable feeding systems – but how?

Mindsets in livestock farming must change as well. One of the key requirements for moving towards more sustainable farming are limits on stocking rates both per hectare and holding. Stocking rates based on the land area required to meet the animals' feed needs would be advantageous at many levels: Farms would produce the necessary

feed on their own land and the slurry they produced would not become problem waste. On the contrary, the valuable nutrients would be available to the plants and the risk of excess fertiliser use would be reduced.

Sustainability considerations can be integrated into feed purchasing decisions in a variety of ways. The massive imports of cheap soya have displaced indigenous feeds in the marketplace. However, depending on the livestock species concerned, other feedstuffs can be substituted for soya. Suitable alternatives include domestically produced legumes such as peas, field beans or lupines as well as other feed legume crops such as clover and lucerne. From the point of view of animal nutrition this is most easily achieved in cattle feed. Due to their complex ruminant digestive system cows can make optimum use of grasses and produce milk – a high quality food protein source. A study commissioned by WWF has shown that domestically produced grain legumes are a very good substitute for soya bean meal up to an average milk production level of 8,000 kg/year (the current average production level in Germany is 7,000 kg/year). In combination with rapeseed expeller and high-quality forage, grain legumes can also be substituted at higher milk yields. Herbaceous legume crops such as lucerne or clover as part of the forage can also replace the soya meal component in concentrate feeds.

The situation is a little more difficult when it comes to pigs and poultry. Nonetheless, here, too, significant savings of soya bean meal can be made with additions of domestically grown legumes up to a level of 20 per cent of the rations. Studies have also shown, however, that the integration of domestically produced grain legumes and feed legume crops requires fundamental management changes. Moreover, it is frequently argued that domestically grown legumes are not sufficiently available in the marketplace. However, good initial approaches are at hand in terms of on-farm cultivation of legumes on pig-producing holdings as well as legume production under contract.

■ Transparency – key to greater sustainability of feedstuffs

The example of feedstuffs and the various impacts their production exerts on the environment once again highlights the urgency of moving towards globally sustainable agriculture. While both the soya farmer in Latin America and the pig producer in Germany can contribute to achieving this goal, the responsibility is not theirs alone. The entire value chain including traders, feed mills, processors (such as dairy, meat and poultry processors), retailers and consumers must be called to task.

Responsible decisions can only be taken in the presence of information allowing for real choices. As yet there are no solid figures on the proportion of non-GM soya entering Europe. Estimates suggest that 10 to 20 per cent of the total soya imports are non-GM. While plant-based products containing genetically modified soya must be labelled as such, livestock-based products from animals fed genetically modified soya do not need to be identified. An extension of labelling laws to livestock-based foods would provide consumers with the information necessary to make conscious purchasing decisions.

In addition to freedom from genetic modification, other minimum criteria are urgently needed for greater sustainability in soya production. Two certification systems for soya have come to the fore in recent years: RTRS non GM and ProTerra. It is the view of WWF Germany that both these systems meet the minimum requirements of a first step towards more sustainable soya production. Additionally there is an initiative in the Danube region under the name of “Donausoja” (Danube soya) which similarly meets these minimum criteria. Feed purchasers and traders should require compliance with these minimum requirements as a matter of course. This will only be possible in the presence of chain of custody traceability and transparency.

Many farmers are aware of their responsibility and are already changing their feed ration composition. However, once they do that they have to compete with farmers who continue to bank on cheaper soya feeds. As consumers we can decide what kind of agricultural products we want to buy and whether to eat less meat or better meat and we can thus contribute to more sustainable and more natural farming. Foods produced in accordance with the EU Organic Regulation or based on the standards of organic farming associations should be at the top of the list.

■ Sustainability needs political support

In the current political and economic environment, farmers who change over to more sustainable livestock feeds are the sole risk bearers of that decision. While the German Federal Ministry of Food and Agriculture supports projects engaged in breeding and cultivating protein crops as part of the Ministry's protein crop strategy, it is clear that the measures are not having sufficient impact. What we need is a change in the policy setting (linking livestock production to forage area; establishing mandatory labelling; etc.) as well as targeted support for legume production in domestic farming with a view to minimising the adverse ecological and social impacts of agricultural production.

What worldwide soya production is used for

