Glyphosate Application Under Threat in Brazil

**Summary**

- In August, a Brazilian judge ordered the sale and use of glyphosate to be suspended until the Brazilian Health Regulatory Agency concludes a toxicity re-evaluation.
- The injunction was overturned in September, but proponents of the ban on glyphosate may still appeal that decision.
- If the judgement remains in place, the soybean chain could face difficulties in controlling weed infestations in the next crop season, due to the high dependency on this product.
- Rabobank expects a small impact on the pace of Brazil’s soybean acreage expansion for the upcoming season. This will curb the production potential slightly. Although plantings of existing fields will not be cut, yields could still be negatively impacted if there is a lack of alternative herbicides.

**Context**

Glyphosate has become the most important herbicide used in Brazil because of the great acceptance of glyphosate tolerant traits among soybean farmers. By using this GMO technology, farmers were able to enhance non-tilled farming and simplify weed control, resulting in time and money savings. GMO soybean has been cultivated in more than 50% of soybean area since the 2005/06 crop. In the 2016/17 crop season, GMO soybean was cultivated in 97% of soybean area – and for the most part this is glyphosate resistant.

![Figure 1: Evolution of soybean GMO adoption in Brazil as a percentage of total soybean area – most of it glyphosate resistant](image-url)

Source: Celeres and Rabobank (2018)

At the beginning of August 2018, a Brazilian judge determined that Anvisa (The Brazilian Health Regulatory Agency) had to suspend the registry of all products that contain glyphosate before 3 September and defined 31 December as the deadline for the agency to finalise the re-evaluation of toxicity. The injunction was overturned in September, considering the importance of glyphosate in current agricultural practices in Brazil, and the proximity of the start of the next crop season. Proponents of the ban on glyphosate may still appeal this last decision.
It is a critical discussion for Brazilian agribusiness, and the sudden suspension of the use and sale of such an important herbicide would affect weed management of the most important crop production in the country. Therefore, it is important to understand the impact of such a measure on soybean production.

**Potential impact**

If the glyphosate suspension continues, farmers will have to go back to the market and procure substitutes for this active ingredient – an alternative is a basket of herbicides used in conventional soybean areas. This could increase farmers’ expenditure on herbicides by around 80%, at current prices, or USD 30/ha. Although, the increase in costs could be much higher because the additional demand will boost the prices of other herbicides.

Brazil will start the planting of the 2018/19 season in mid-September and Rabobank expects Brazilian soybean acreage to reach 36.7m hectares, up from 35.1m hectares last season. This potential increase in area has been boosted by good margin expectations, given higher export premiums and BRL devaluation.

Given the additional production costs of replacing herbicides, a restriction in the glyphosate use would limit Brazilian soybean expansion in this next season. Because most of the additional soybean acreage will take place on underused pasturelands, higher costs may make this field operation unfeasible, especially considering the limited expected yield potential in those first-year soybean areas. In terms of production, Rabobank expects Brazil’s soybean crop size to reach 118m tonnes in the next season, but these limitations in expansion may reduce this trend to 112m tonnes.

We cannot ignore the scenario in which farmers are both unable to use glyphosate and are unable to find enough substitute products in the market. The reduction in demand for the substitutes during last decades has affected production and current stocks level could not fulfil demand expectations. This means that the ban could cause unpredictable losses in soybean yields, in total Brazilian crop size, and in uncountable losses for the whole chain.

**Conclusion**

The agricultural system in Brazil has increased its dependency on glyphosate during last two decades because of its efficiency. Taking this product out of the market suddenly will force higher costs and may frustrate acreage, yields, and crop size. In an extreme situation, it could jeopardise the soybean chain in Brazil.

Any measure taken to limit the use of crop protection has to consider the ability for farmers to find substitute products and for the industry to increase production. As in the paraquat case last year, when Anvisa revised its toxicity and decided to suspend the use of this product after three years, this requires a transition period.
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