

Estimation of national cost structures for agricultural market modeling based on *agri benchmark* data

First conclusions and recommendations

1. Scientific *agri benchmark* partners in Argentina, Canada, South Africa and USA together with *agri benchmark* center at vTI have been working on an OECD funded project to come up with estimates for the national averages for cost structures for the countries mentioned. The crops looked at were soybeans (Argentina), rapeseed (Canada), wheat (South Africa) and corn (USA). The idea behind this endeavor is check whether it would be possible to use *agri benchmark* data to feed global sector models in order to improve results. Similar calculations have been conducted for the global beef sector by the *agri benchmark* beef network.
2. The key findings from the case studies can be summarized as follows:
 - Provided the aspiration is limited to explain about 80 % of the given crop output, all partners involved where able to come up with a reliable and robust estimate for a national cost structure in the given crops based on *agri benchmark* data.
 - In the case of corn production in the USA, a few preliminary assumptions have to be made in order to come up with an estimate for a national average. Given the size and the importance of US corn production for global trade a broader coverage of typical farms in the US would be absolutely necessary.
 - Under the very specific conditions of Argentine soybean production it is possible to cover 80 % of the national output in a given crop by using straight *agri benchmark* data for one typical farm as a proxy for the national cost structure.
 - However, in more diverse environments (such as in South Africa) and when current production is expanding into new regions (as is the case in Argentina) the existing density of typical *agri benchmark* farms is not suitable to generate reliable average national cost structure data which reflect all the particularities in crop production.
3. Provided partners from global ag sector modeling would be interested in systematically making use of *agri benchmark* data, it will be possible to generate those figures. However, given the fact that normally *agri benchmark* only has three different farms per country, especially in larger countries and those with rather diverse natural conditions an expansion of the current coverage is needed in order secure reliable data.