

Re-inventing Crop Production – A New Research Strategy is Needed Chinese Hunger for Corn Likely to Stay

These are two of the key conclusions from the *agri benchmark* Cash Crop WebConference 2021, ended on June 11th. Over the course of one week and 10 sessions, more than 140 research partners and experts from the *agri benchmark* network and invited guests from the agri business discussed the future of global crop production.

Local expertise plus high-tech for new, site-specific production systems

Research from Jannik Dresemann from the *agri benchmark* Center revealed that in many cropping systems farmers are challenged with:

- (a) weed and pest resistance against certain crop care products or the simple lack of crop care products.
- (b) the need to reduce nutrient losses – particularly nitrogen – because of increasing societal concerns about negative environmental effects and related greenhouse gas emissions. The latter topic especially is becoming more and more important to policy makers as well as value chain actors.

A panel discussion on the consequences from these findings concluded that a more site-specific research on new cropping systems is needed as well as the mobilization of existing know-how of growers and advisors. So-called “living laboratories” where producers, agribusiness industry and crop researchers collaborate closely on innovations and solutions in crop production, were seen as a promising option. The key challenge will be: who is going to take the lead in such a process?

The new Canadian *agri benchmark* partner, Ken Coles from Farming Smarter, comments: “Exploring this issue further is an exciting endeavor. I am very much looking forward to sharing our experience with the network and stakeholders globally, also in the course of a respective research project that Jannik from the *agri benchmark* Center at the German Thünen Institute will be working on.”

2021 – A bright outlook for most crop producers

Considering the recent increase in global commodity prices – mainly driven by the spike in Chinese corn imports -, the network expects a rather profitable year 2021 for many producers. As Yelto Zimmer, coordinator of *agri benchmark* Cash Crop, stated: “Even when taking into account the massive increase in fertilizer and energy prices, our data suggest that with normal yields, the 2021 return to land will go up by 50% or more”. Since many typical farms also experienced a fairly successful year 2020, the overall economic situation of arable farms should be rather positive.

When considering the evolution of crop protection cost, we see a rather diverse evolution: While in France typical farms reduced their respective spending in wheat over the past 6 years by 10 to 15 % in the key British wheat areas respective cost went up by about 30 %.

Chinese strong corn demand is there to stay

The international hog consultant Jurgen Hijink stated that the current spike in Chinese corn demand and imports is mainly caused by the structural change in Chinese hog production. Whereas previously about 30% of the production stemmed from farms with less than 50 pigs, the bulk of production has been shifted towards farms in the range of more than 1,000 pigs. The reason for this change: The Chinese government considers the so-called backyard producers to be the main driver for the African Swine Fever (ASF) outbreak. Hence, they are massively promoting and supporting the establishment of mega barns with more than 10,000 pigs. The side effect from this change: the feed rations of large operations are mainly based on commercial grains (corn, wheat, barley, sorghum) while backyard production is more based on byproducts such as rice bran, crop byproducts, food waste, etc. Compared to pre-ASF levels, in 2021 this shift has led corn demand to go up by 15%; by 2025 total commercial grain feed consumption will go up by 30% to 40% or +40 million tons. This net effect includes improved feed conversion rates due to the structural change and an assumed increase in pig meat consumption of about 10%. The consequence: Unless the Chinese government is reallocating land use massively towards corn production, high and even growing Chinese corn imports are likely to be persistent.

Media interested in further details can get in touch with Jeanette Malchow (jeanette.malchow@agribenchmark.net) at the *agri benchmark* Center.

agri benchmark Cash Crop is a non-profit global network of agricultural economists, coordinated by the German Thünen Institute and the non-profit company global networks. Its aim is to generate and disseminate reliable and usable analyses of major trends in global crop production for decision makers. For more information, please visit www.agribenchmark.org.