

PHILIPPE ROUSSEAU

Syngenta Seeds S.A.S., 12, chemin de l'Hobit B.P. 27, F – 31790 Saint-Sauveur

NEW GENETICS FOR A NEW ERA – A SEEDS COMPANY PERSPECTIVE ON HOW TO UNLOCK THE POTENTIAL OF SUGAR BEET

ABSTRACT

Over the past decades, breeding for sugar yield, coupled with other technical advances, has delivered an annual yield increase that has exceeded the other crops by at least 1%. This is a considerable achievement which has been unmatched by any other arable crop. The vision and win-win approach taken by the sugar industry was the key driver for the innovation that led to this growth.

However, significant changes to the market can be expected post-2017 and sugar beet will undoubtedly enter into a VUCA world (Volatility, Uncertainty, Complexity, and Ambiguity).

How can we as a sugar industry overcome this?

Innovation is, and will remain, the key driver. On the genetic side, new breeding techniques combined with complementary technologies (including marker-assisted selection, genomic selection, genotyping, double haploids, cat-scan and digital mapping) will facilitate the move towards predictive breeding. This will increase the performance of the crop together with its sustainability. On the other side, this genetic yield potential will need to be protected by Seed Care and Crop Protection technologies. Active ingredients are therefore key assets to growers and they will need to be preserved, and managed, in a sustainable way.

However, innovation and technology will not solve all the challenges, and consequently, there will need to be an in-depth review to address the remaining cost inefficiencies. One example is variety registration and testing where the savings from a cross-country approach could be re-directed to further enhance collaboration with the Institutes and promote further innovation. The challenge will be to develop cost savings without damaging the current successful win-win approach.

The combination of continuous innovation and technology development from the seed companies coupled with the vision and strategy of the sugar beet industry and growers will enable us to overcome this post-2017 challenge and to remain competitive with sugar cane, isoglucose and other crops in the rotation.

Innovation, technologies, diversity of offers and improved agronomic practices will enable the industry to close the yield gap between the official variety trials and real-life commercial crops. This will further liberate the potential of the sugar beet crop and secure the future of the industry as a whole.