xseedscore®

accurate performance prediction

Exceed your breeding results with xSeedScore

machine learning-based technology by Computomics

double accuracy

double genetic gain

halve the breeding cycle

The most personalized, secure, and reliable way to a commercial product

▶ *GxExM modeling with machine learning*

▶ *Billions of accurate predictions in untested locations and climates within hours*

▶ *Secure data center located in Germany*

▶ *Combine genetics for the highest predicted GCA in second cycle breeding, saving 2 years*

▶ *Twice as accurate performance prediction*

▶ *Integrate data from more than 16 sources: soil, climate, management, ...*

Predict virtual hybrids from a male and female double-haploid population and predict hybrid phenotypes.
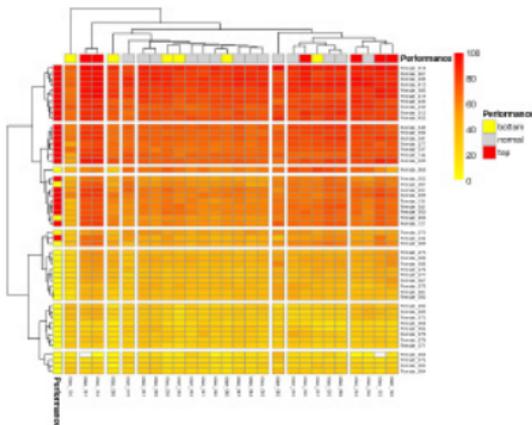
Challenge

To feed 10 billion in 2050, plant breeders are developing new plant varieties with improved characteristics. Breeding cycles are very complex, expensive and time-consuming. Our customer wanted to evaluate the genetic potential of crosses and assess the best performing ones to develop a new maize variety with higher yield.

Solution

With the Computomics xSeedScore machine learning-based solution, we predicted the performance of all possible hybrids and uncovered high-yielding combinations, some that would have been otherwise discarded.

Results

Accurate performance prediction of all virtual crosses increased the number of commercial hybrids 10-fold. This means that the data we delivered for this program is worth around $72M-96M USD in field trials.
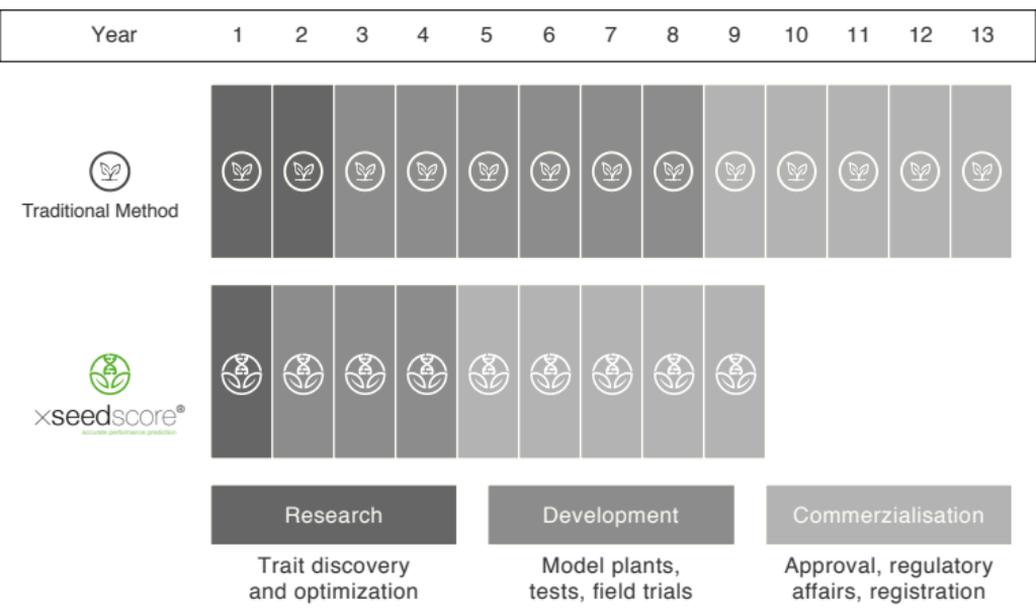

Heat map: visualisation of results

Accelerate your breeding programs and bring new varieties to market

xSeedScore reduces time to market for new varieties by 3-6 years

Year	1	2	3	4	5	6	7	8	9	10	11	12	13

Traditional Method

xseedscore®

Research	Development	Commerzialisation
Trait discovery and optimization	Model plants, tests, field trials	Approval, regulatory affairs, registration

Bring your breeding ideas to life with our solution!

We support you on your journey to a new commercial product. You have breeding knowledge, we have machine learning capabitlites. Together, we achieve the best results.

Our offer includes:
- personalized support
- machine learning-based algorithm for accurate predictions
- openness and flexibility to understand and adjust to your breeding system

What our customers say

"What we got from Computomics is very different to others. Computomics listened carefully to our goals and designed a tool that we can use to develop commercial hybrid quality."

Midrange Breeding Company

xseedscore.com

computomics
machine learning-based data analysis

Computomics GmbH

Phone: +49 7071 568 3995
info@computomics.com

@computomics

/computomics-gmbh

/computomics