

WHY FARMERS NEED PLANT BREEDING INNOVATION



WHAT PROBLEMS ARE FARMERS FACING?

HIGH INPUT COSTS

Farmers are facing increased costs for energy, fertilizers, water, machinery, land and more.

CLIMATE SHOCKS

Extreme weather such as drought and flooding puts farmer livelihoods at risk, driving down yields, increasing pests and raising production costs.

SUSTAINABLE PRACTICES

Farmers face increased demands to meet regulatory and market requirements that seek to improve sustainable production practices.



WHAT IS THE SOLUTION?

Plant Breeding Innovation (PBI), such as **new genomic techniques**, has the potential to increase yields, reduce the need for expensive tools and drive down costs for both farmers and consumers.

PBI can protect farmer livelihoods by **making plants resilient** to climate shocks, as well as increasing and maintaining crop yields.

By making crops naturally resilient, PBI helps farmers to meet sustainability targets in a **cost-efficient** way.



WHAT EXAMPLES ARE OUT THERE?

In the **European Union**, the use of PBI in agriculture is hindered because new genomic techniques are currently regulated as GMOs, unlike in many other countries.

In countries that have embraced PBI, a rapidly increasing number of **precision-bred plants** are being developed – from salt-tolerant rice to virus-resistant cassava and non-browning bananas.

In Japan, **extra-juicy tomatoes** have been developed for a superior taste and enhanced nutritional value, and are already available to consumers.

