NO-TILL

NO-TILL FARMING allows growers to produce our food while protecting the soil that ensures their harvests can thrive for years to come. It will be an essential technology for farmers to adapt and expand in the face of climate change.

THE OLD WAY

Historically, farmers tilled their soil with **ploughs or other harsh tools** before planting. This reduced weeds but increased soil erosion, moisture loss and carbon emissions.

THE NEW WAY

Herbicide-tolerant crops allow farmers to control weeds while leaving the soil **pristine and untouched** before planting.

GAME CHANGER

The untouched soil retains water, nutrient-enriched topsoil and fertilisers much better than a tilled field. This means **healthier, more productive harvests** and reduced input costs for farmers.

TODAY'S BENEFITS

86% of farmers in Canada found **lower soil erosion** and 83% saw **greater soil moisture** after adopting no-till farming with herbicide-tolerant canola.[1]

FARMING'S FUTURE

No-till farming could **double maize yields** in Africa and Latin America by 2050, if combined with irrigation.[2]

INVESTMENT IS NEEDED

Developing an herbicide-tolerant biotech crop can take 13 years and cost **over $130 million**, which is why IP protections are essential for continued development.[3]

INNOVATION DRIVES AGRICULTURE

CropLife INTERNATIONAL

IP52.org
Making sense of intellectual property

[1] Smyth, Stuart J., et al. *Environmental impacts from herbicide tolerant canola production in Western Canada*. Agricultural Systems, 104 (2011).

[2] International Food Policy Research Institute, *Agritech Toolbox*, http://apps.harvestchoice.org/agritech-toolbox

[3] Phillips McDougall, "The cost and time involved in the discovery, development and authorisation of a new plant biotechnology derived trait" http://croplife.org/plant-biotechnology/regulatory-2/cost-of-bringing-a-biotech-crop-to-market/