

Innovation Emerges from Intellectual Property Protection



Henry Olechowski is proud to play a role in giving farmers an opportunity to grow crops in places never thought possible due to climate restrictions.

“A highlight of my career has been moving the adaptation of crops to earlier and earlier maturity zones in Canada and the northern U.S.,” says Olechowski, director of research for

Hyland Seeds based in Blenheim, Ontario. Thanks to his team, growers in parts of Manitoba and Quebec can now successfully produce corn and soybeans.

“For example, we now have soybean varieties that are adapted 60 kilometres north of Winnipeg,” says Olechowski, noting that soybeans were once confined to fields south of the province’s capital. “Again, we are pushing the maturity zones, and at the same time, maintaining yield levels and disease tolerance.”

Intellectual property (IP) protection plays a key role in these advancements – giving seed companies like Hyland the confidence to invest in research and develop improved varieties that benefit growers across the country. By purchasing certified seed and complying with the legal practices for saving and replanting seed associated with the various IP methods such as Plant Breeders’ Rights or Technology Use Agreements, farmers are helping Olechowski and his fellow breeders bring these innovations to the field.

“You have to look at the return on investment and what you are putting in,” says Olechowski when evaluating where to focus his work. Canada’s seed industry is forecast to spend nearly \$112 million annually in research and development by 2012.

In addition to introducing crops in places where they’ve never been grown before, Olechowski’s team is using various tools and techniques to bring seed varieties to

market faster than ever. “One is the incorporation of Recurrent Introgressive Population Enrichment, or RIPE, which utilizes male sterility in the barley program, so we can reduce time to breed and commercialize a barley variety by two years,” he says. This advancement gives Canadian farmers access to new seed innovations faster – an advantage that keeps them competitive in the global market.

Through Olechowski’s work there are benefits for farmers and consumers alike. Since Hyland’s release of FT Wonder, a fusarium-tolerant soft red winter wheat, the company has focused on screening all their wheat and barley varieties for the disease. “I feel pretty proud of the fact that we have raised the tolerance levels for that disease – that is a benefit to both farmers and consumers because of the toxin issues associated with fusarium,” says Olechowski, citing food safety benefits for livestock and human consumption, as well as an economic benefit for farmers when it comes to marketing the crop.

Olechowski values IP protection tools like Plant Breeders’ Rights and Technology Use Agreements to help him continue his work at bringing new innovations to Canadian farmers and consumers. “They give a measure of protection for companies investing in research that they can get a return on their investment and fund more research. What this means to Canadian farmers and society is the development of newer varieties with value-added components,” he says.



Through their seed breeding efforts, Olechowski and his team are looking forward to more possibilities for farmers, the environment and society as a whole. “In the future we are looking at efficiencies in water utilization and nitrogen utilization,” he says. “We are also looking very strongly at the whole healthy foods component – whether that’s healthier oils in the oilseed crops or changing starch profiles in the grain crops – to benefit consumers.”

This article is brought to you by the Canadian Seed Trade Association.