App makes instant weed ID possible

By Barb Glen
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Nolan Kowalchuk tests a smartphone application called Xarvio Weed Scout at a field day June 20. | Barb Glen photo

It's facial recognition software for weeds.

That's one way Brent Nicol, digital farming specialist for Bayer CropScience, describes Xarvio Weed Scout, an app that identifies weeds. He helped farmers test it June 20-21 during the Farming Smarter field school in Lethbridge.

"This is the second year we've been up and running," Nicol said.

"It's still a little bit in the beta testing process, but we're hoping that between the algorithms we've built and working with things like Farming Smarter to take pictures for us, we can make it pretty sure-fire."

The key right now is to amass photos for the database of all types of weeds in all stages of development. Any photo taken by anyone using the app becomes part of that database.

"We're trying to get every single level of weed that we can of every single stage, so from early emergence we can hopefully identify it right away, all the way up to full maturity before it goes to seed."

The focus is on western Canadian weeds, although the service is already live in six countries.

In later stages of development, Xarvio, a division of Bayer, plans to incorporate leaf disease identification, yield estimation and insect monitoring.

"Who knows? Eventually it gets to a point where you ID a weed and all of a sudden the chemical recommendation comes out with it or a product that could be associated with it," Nicol said.

Other weed identification apps are available, but few are free and fewer are as comprehensive, he said.

Weed Scout is available through the App Store (for iPhone)or Google Play (for Android) and has terms and protections for data use similar to most downloadable apps.

In practice, Nicol said it is usually best to pull the weed before taking a photo so there is no confusion with surrounding foliage. Results are indicated along with an accuracy percentage in case there is doubt about a weed's identity.