

MANAGE RESISTANCE *Now*

Protect your land, one field at a time

CASE STUDY

DAN PETKER,

Petker Farms Limited, Port Rowan, Ontario



Grower makes resistance management part of his routine

When it comes to managing herbicide-resistant weeds, Dan Petker takes it all in stride. “It’s just another aspect of the farm that we have to do,” says the Norfolk county farmer who grows corn, soybeans, wheat and forages with his dad on the northern shore of Lake Erie.

It helps that Petker has a keen interest in weed management; it’s a passion he’s trying to instill in others. “I try to foster some excitement in dealing with weeds, instead of people thinking that it’s depressing,” says Petker who regularly connects with other farmers in his role as a Pioneer® Hi-Bred seed dealer.

Looking beyond Canada fleabane

Weed resistance has been a reality on Petker Farms since the 1970s with the development of triazine-resistant lambs-quarters. He admits they didn’t pay much attention to the issue once glyphosate-tolerant crops were introduced.

“We were one of the first farm operations in the area to swing away from residual weed management,” says Petker who is now a certified crop advisor. “At the time, no one thought glyphosate resistance would happen. Four years ago, we were the first guys in the area to go back into a diverse herbicide program. Now we’re heavy into multiple effective modes of action, just to manage some of these weeds.”

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Glyphosate-resistant Canada fleabane has been prevalent in Norfolk county for the past five years. “Only now are people starting to realize how quickly it can take over a soybean field,” he says.

While Canada fleabane is the ‘weed of the day,’ Petker says it’s important to look beyond and get ready for resistant waterhemp and palmer amaranth. He calls Canada fleabane ‘practice’ for what’s to come.

Crop rotation, minimum tillage and multiple modes of action

Petker uses resistance management best practices to keep ahead of the issue. It starts with crop rotation to help mix up the weed pressure. He uses wheat and forage to break up his corn and soybeans crops. “We grow five years of forage on a field and we’ve noticed it really changes our weed spectrum, especially with the annuals.”

He has also found success using as little tillage as possible to alter the weed pressure. “We’ve moved to strip-till corn, minimum-till beans and no-till wheat.

Our weed spectrum will shift towards perennials, but the annuals still happen because they blow in,” says Petker whose farm is surround by 4,000 hectares of marsh and prime duck and goose habitat – a primary mode of transport for weed seeds.

Using herbicides with multiple modes of action is another key to Petker’s plan. He does a fall burndown post-harvest and he adds different modes of actions in the spring to get tough on Canada fleabane. “I’m actually using three modes of action.”

Petker regularly scouts his field to identify any problem areas. “The whole field gets treated, but then we pay strong focus to those spots where the infestation is heavy,” he says. If weeds escape his spring burndown and residual control, he will go back and spray a patch.

Application techniques and cover crops

Petker is also an advocate of proper herbicide application. He has two rules of thumb – good water volume to get adequate coverage and don’t drive fast. “A lot of guys are driving their sprayers 15 miles per hour, we’re 10 to 12,” he says adding that droplet placement is important. “We try to impart less forward momentum of the droplets, so that they are going more down than across.”

Cover crops is another strategy Petker is experimenting with to manage weeds. “We’ve noticed excellent weed suppression in our trial field. Cover crops are allowing me to skip a fall herbicide pass and I’ve noticed my spring weed pressure is significantly reduced as well.”



Taking steps to manage resistance today is important for future generations of farmers like Dan’s son Henry.

Petker cautions that there is a lot of learning to do for a generation that’s mostly familiar with glyphosate-tolerant crop production, and he’s ready and willing to share his knowledge.

“I’m more than happy to talk about my failures. We were the first people in the area to switch completely from residuals and just go Roundup®, Roundup, Roundup. There’s no shame in that, it’s just what it was, but now I recognize that’s not sustainable at all. To rely solely on Dicamba, 2-4D or Liberty® going forward is not sustainable either. Three to four effective modes of action, that’s key.”

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