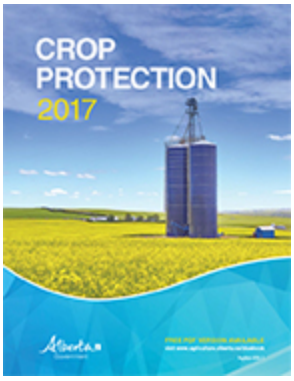
My biggest fear, when dad got surgery, was that the surgeon would extract the wrong lung. It was an even bigger fear, when the nurse wrote on him the word “Right” and circled his chest. There has to be a lot of paperwork and documentation in hospitals to ensure there is no mistakes. Not just for surgery, but I’m certain medications mix ups are always a worry.

In today’s agriculture, keeping records is also necessary to avoid future problems. Pesticide resistance can occur from the repeated application of similar products year after year. This is a real threat and not merely an academic one.

Herbicide resistance is a pressing issue across Canada. 65 known species of weeds are herbicide resistant. In Alberta there are 19 species. Several of these species may be resistant to more than one herbicide group. These include wild oats and cleavers, but also hemp nettle and stinkweed.

Resistance occurs through selection pressure. When a herbicide group is used frequently, some plants may have an adaptation that allows them to survive a normally lethal dose. If they are able to pass this type of resistance to their offspring, then a population is considered resistant and can begin to spread. Eventually if the same herbicides are used and the plants invade a significant portion of the field, severe yield losses can result. Some wild oat populations are resistant to group 1, 2, 3, and 8 herbicides. If you are unfortunate enough to have this issue, what will you use in your cereal crops for control?

Good records will allow us to ensure we do not repeat the same herbicide usage too frequently. If we rotate our crops and our herbicide groups often enough, we may minimize the risk. Further, we can ensure we use tank mixes that spray multiple groups at the same time.



We can also utilize other tools, such as proper seeding rates and variety selection to have the crop outcompete certain weeds. Delayed seeding, with a pre-burn tank mix of glyphosate and another group could also be another tool to employ to minimize resistance buildup.

In the end it will be the careful recording of which herbicide was sprayed where and at what rate to ensure we are able to use herbicides well into the future. Just as you wouldn’t want to lose the wrong lung in an operation, you don’t want to lose the ability to use herbicides to control yield robbing weeds in your fields.

JP Pettyjohn is the Manager of Agronomic Services at Ray Agro & Petroleum. Contact JP by email at jppettyjohn@rayagro.com