

Pre-seed herbicide applications and tank mix partners

The debate

John and Joe are debating pre-seed herbicide selection. Joe applies a 0.5 L rate of glyphosate on most of his fields. It is relatively cheap at about \$2.30 to \$3.50 an acre. It does a good job every spring and he trusts it. On some of John's fields he is tank mixing different products with his glyphosate, depending on the field, weed types, herbicide rotation and the crop going in each field. This adds approximately another \$6.00 to \$7.00 to his costs and they are debating if there are true benefits to tank mix applications.

Herbicide tolerances

John points out that winter annual broadleaf plants, such as stinkweed, white cockle and narrow-leaf hawksbeard may not be fully controlled in the spring depending on rosette size and application timing. However, with a good tank mix partner the control increases. Also, certain weeds like wild buckwheat are not as easily controlled by glyphosate alone nor are several perennial weeds like thistles or dandelion. Tank mix partners of Express Pro or Pre pass flex can help provide extra control options on harder to control weeds than glyphosate alone.

Herbicide resistance

John is also concerned that frequent glyphosate use creates selection pressure. This in turn allows for herbicide resistant weeds to survive and proliferate. He knows that some weeds are tolerant of the herbicide, but fears what will happen if some weeds become truly resistant, like kochia in southern Alberta. By mixing in another chemical group, there is less chance that a weed will be able to survive two different modes of action (the way herbicides

kill weeds), reducing the risk of creating a herbicide resistant weed population.

Crop safety

It is important to select a pre-seed herbicide mix that is crop safe. Canola is particularly sensitive, and a mix of carfentrazone (Aim or Clean Start), bromoxynil (Pardner, Brotex etc.), or a combination of carfentrazone and bromoxynil (Conquer) are the few mixes one can spray ahead of canola. John is careful to work with his agronomist to select the correct partner for the weeds and crop.

Cheap tools vs. Quality tools

Joe is convinced the cost will not justify the addition of the of a tank-mix partner. He would rather just double the glyphosate rate than spend 3 times that for the partner. John agrees this is true if we only look short term. History is showing a different story in the U.S. where the cost to control glyphosate resistant weeds is more expensive than minimizing the resistance in the first place. It is like using a cheap tool until it breaks and having to find a better more expensive tool to continue farming. We should buy an exceptional tool that is used carefully so it does not break.

John is quick to point out that not every field, every year requires a tank-mix partner, but a good management plan can be instrumental in minimizing the risk to higher input costs in the long term.

Don't be the average Joe and continue to apply glyphosate without tank mix partners. Implement a herbicide management strategy on your farm that can save you money in the long term, and the headaches of dealing with herbicide resistant weeds in the future.