

# FIGHTING WEEDS IN THE FALL

The value of post-harvest burn-offs for controlling  
perennials and winter annuals

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By Rob Bahry, Development and Research Manager at ADAMA Canada



## Strength in numbers. This familiar military motto also applies to one of a grower's greatest adversaries – weeds.

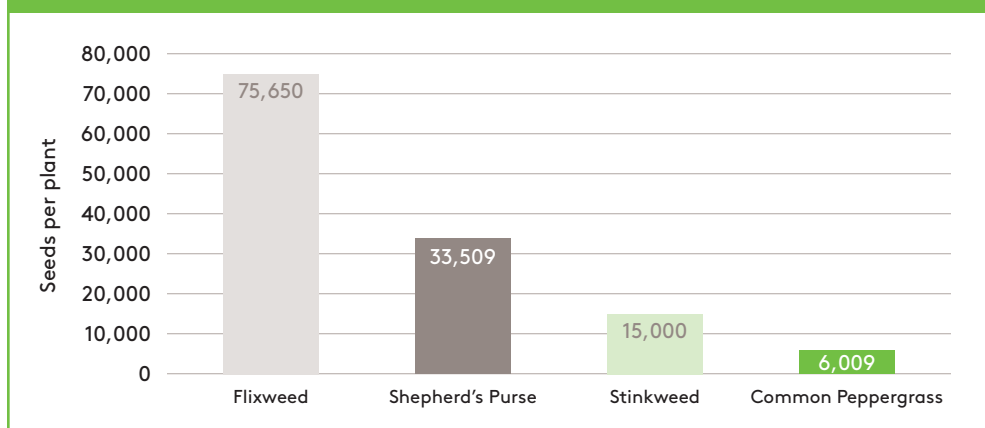
Many species of perennials and winter annuals are prolific seed producers, capable of swiftly infesting fields and causing serious yield losses in numerous crops if left unchecked.

Perhaps the most familiar perennial weed – dandelions – don't require pollination to produce seeds and can spread exceptionally fast. One plant can generate up to 2,000 seeds. According to one estimate, **more than 240 million seeds per acre can be produced annually by a dense stand of dandelions!**

Winter annuals, which are spread primarily by seed, can also produce great numbers of offspring each year as illustrated by these examples.



### SEED PRODUCTIONS OF WINTER ANNUALS



Source: Mirza N. Baig and Peter Gamache, Control of Winter Annuals in Reduced Tillage Systems

It's hard to fight those kinds of numbers, which is why timing is a critical aspect of weed control.

<sup>1</sup>"Dandelion." University of Wisconsin Weed Science Cooperative Extension. Online. Accessed 9 August 2016. <http://fyi.uwex.edu/weedsci/2002/11/12/dandelion/>



## Take out tough weeds in the fall.

Fall can be great time to clean up hard to kill weeds, especially perennials and winter annuals.<sup>2</sup>

When temperatures start to drop, perennials like dandelion, Canada thistle and other thistles begin moving nutrients to below-ground tissues for winter storage to support spring growth.

**Glyphosate applied in the fall also moves down to the roots, enhancing its activity and providing a better kill.** When applied in the

spring, glyphosate does provide top growth control but there'll often be regrowth of perennial weeds from their roots.

Winter annuals are also best controlled in the fall when they're small seedlings. By the time these weeds are sprayed in the spring, they are often too big for good control, especially if herbicide applications are delayed due to wet, cold spring weather.

A post-harvest burn-off for perennials and winter annuals provides growers with an excellent opportunity to use different chemistries to control these tough weeds.

## POST-HARVEST CONTROL OF DANDELION

**For best control of dandelions, apply herbicides in the fall when the weed is moving nutrients down to its roots.**



### Weed regrowth

Less than 6 in. wide, from pre-bloom to full flower, with 60% green leaf tissue (for larger plants, use a higher rate of glyphosate)



### Application timing

Spray on sunny days when daytime temperature will reach 8°C and remain there for 2-4 hours after application



### Tillage / frost-free window

Allow 5 days in ideal conditions or 10 days in cool/cloudy conditions



### Frost damage

Wait 1-2 days to assess injury – only spray if majority of weeds are 60% green and actively growing



### Chemistry

Tank mix PRIORITY® 0.04 L/ac plus glyphosate at 0.5 L/ac



### Water volume

20-40 L/ac



#### Sources:

"Post-Harvest Applications of Roundup® Brand Agricultural Herbicides" Roundup.ca website. Accessed 22 Aug 2016. [http://roundup.ca/\\_uploads/documents/CP\\_Post%20Harvest%20Application.pdf](http://roundup.ca/_uploads/documents/CP_Post%20Harvest%20Application.pdf)

"Chemfallow and Post-Harvest Weed Control" ADAMA Canada website. Accessed 22 Aug 2016. [http://www.adama.com/canada/en/Images/TECHSHEET-Priority-Post-Harvest-West\\_tcm96-59268.pdf](http://www.adama.com/canada/en/Images/TECHSHEET-Priority-Post-Harvest-West_tcm96-59268.pdf)

<sup>2</sup>"Weed Management." Canola Encyclopedia. Canola Council of Canada. Online. Accessed 9 August 2016. <http://www.canolacouncil.org/canola-encyclopedia/weeds/weed-management/>

## POST-HARVEST CONTROL OF CANADA THISTLE

For best control of Canada thistle, apply herbicides in the fall when the weed is moving nutrients down to its roots.



### Weed regrowth

3-4 new green leaves with 60% green leaf tissue (for larger plants, use a higher rate of glyphosate)



### Application timing

Spray on sunny days when daytime temperature will reach 8°C and remain there for 2-4 hours after application



### Tillage / frost-free window

Allow 5 days in ideal conditions or 10 days in cool/cloudy conditions



### Frost damage

Wait 1-2 days to assess injury – only spray if majority of weeds are 60% green and actively growing



### Chemistry

Tank mix PRIORITY® 0.04 L/ac plus glyphosate at 0.5 L/ac



### Water volume

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#### Sources:

"Post-Harvest Applications of Roundup® Brand Agricultural Herbicides" Roundup.ca website. Accessed 22 Aug 2016. [http://roundup.ca/\\_uploads/documents/CP\\_Post%20Harvest%20Application.pdf](http://roundup.ca/_uploads/documents/CP_Post%20Harvest%20Application.pdf)

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## Tank mix two modes of action for a more complete burndown.

Glyphosate is the most favoured post-harvest control product, and adding a tank-mix partner not only increases weed control options but also makes a valuable tool for resistance management.

Florasulam is a Group 2 active ingredient that's frequently added to tank mixtures for this purpose. A fall application is particularly helpful for growers planting sensitive crops like durum, since conditions typically permit the herbicide to dissipate slowly through the soil.

PRIORITY (our florasulam product) works with glyphosate to control a wide range of broadleaf and grassy weeds, and is registered for chemfallow or post-harvest applications prior to freeze-up.

Applying PRIORITY in the fall to fields where barley, oats or wheat (spring, durum, winter) will be planted is one way growers can maximize the effectiveness of their weed management tools. It may also eliminate the need for a pre-seed herbicide application the following year, saving farmers valuable time during the busy spring season.

Get more information on PRIORITY at [ADAMA.com/Canada](http://ADAMA.com/Canada).



## About the author

**Rob Bahry**

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**Rob is the Development and Research Manager at ADAMA Canada, where he studies evolving trends in Canadian agriculture and looks for opportunities to bring innovation to key crop protection products.**

He is a registered agrolologist and has a Masters degree in Agronomy and Crop Science from the University of Manitoba. Prior to joining ADAMA, Rob worked with a crop nutrition company studying the impact of environmental stress on key field crops. Rob lives in Winnipeg, Manitoba, with his family, his dogs and his favourite team – the Winnipeg Jets.

## About ADAMA Canada

At ADAMA, we lead an alternative approach in the Canadian agriculture landscape by doing three things better than anyone else:

1. We offer an alternative choice for active ingredients.
2. We champion an alternative approach by simplifying the way we work with customers.
3. We support ag retails and respect the relationships they have with growers.

What this means is, we keep things simple. We bring choice and simplicity to crop protection, allowing farmers and retails to do what they love instead of managing complicated, time-consuming rebate programs or bundling.

We also understand the value of the relationships retails have with their growers, and we respect those relationships. We are here to supply retails with what they need to be successful in their business – quality products with the passionate and experienced team that backs them.

To learn more about us, visit [ADAMA.com/Canada](http://ADAMA.com/Canada).

