

# WARC 2021 Fall Update

OCTOBER 2021



## WARC TEAM

Now that summer is over we had to say good-bye to our summer students, Breanna Elder and Jocelyn Leidl. Breanna will be returning to Lakeland College for studies in Ag Business and Jocelyn to the University of Saskatchewan for her final year of Agronomy. We wish these girls luck in their final year of studies and are very grateful for their hard work this summer! Soon we will be welcoming back our General Manager, Jessica Enns, from leave and are excited to be working with her again.

## RESEARCH UPDATE

Over the past couple months, WARC has been busy finishing up the last of our data collection for the 2021 trials. Harvest started early this year on August 4<sup>th</sup>. Yields were much lower this year as anticipated with the dry conditions; however, harvest went well and we finished combining all of the trials on September 1<sup>st</sup>. Herb and Alex spent a lot of time in the cleaning shed processing samples and recording yields. Once all the samples were cleaned, Alex, Herb and Kayla spent time collecting seed quality data such as thousand kernel weights, test weights, protein, moisture, oil content for oilseeds and green seed for canola. Now that all of the data has been collected for each trial, Alex and Kayla will start compiling results and writing reports.

In addition to processing samples from this year's trials, the early harvest has allowed us to do a lot of fall work in preparation for next year. Herb spent some time spraying and harrowing land for next year's trials. As well, trials requiring fall treatments were flagged and applied according to protocols. Planning is underway for the 2022 season and we are optimistic it will be a good growing season!

If anyone is interested in working with WARC on a research project, please feel free to contact our office with the contact information below. We are always looking for new projects and research ideas to add to our program.



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**Top Left:** Herb combining wheat

**Top Right:** Herb combining peas while Breanna waits to change sample bags

**Middle Left:** Aerial view of combining wheat

**Bottom Left:** Fall banding fertilizer. Herb drives the seeder while Kayla applies fertilizer treatments

**Bottom right:** Jocelyn tying sample bags as they come off the combine



# FALL 2021



***Implementing Herbicide Layering Techniques for Improved Weed Control in Peas***

**Funding:** Agricultural Demonstration of Practices and Technologies (ADOPT) initiative under the Canada-Saskatchewan Growing Forward 2 bi-lateral agreement.

**Objectives:** A main concern identified by producers is limited weed control in field peas. Weed control in field peas relies strongly on in-crop applications of Group 2 herbicides. However, many problematic weeds are Group 2 resistant. Therefore, the objective of this study was to demonstrate effective weed control strategies by utilizing herbicide layering techniques.

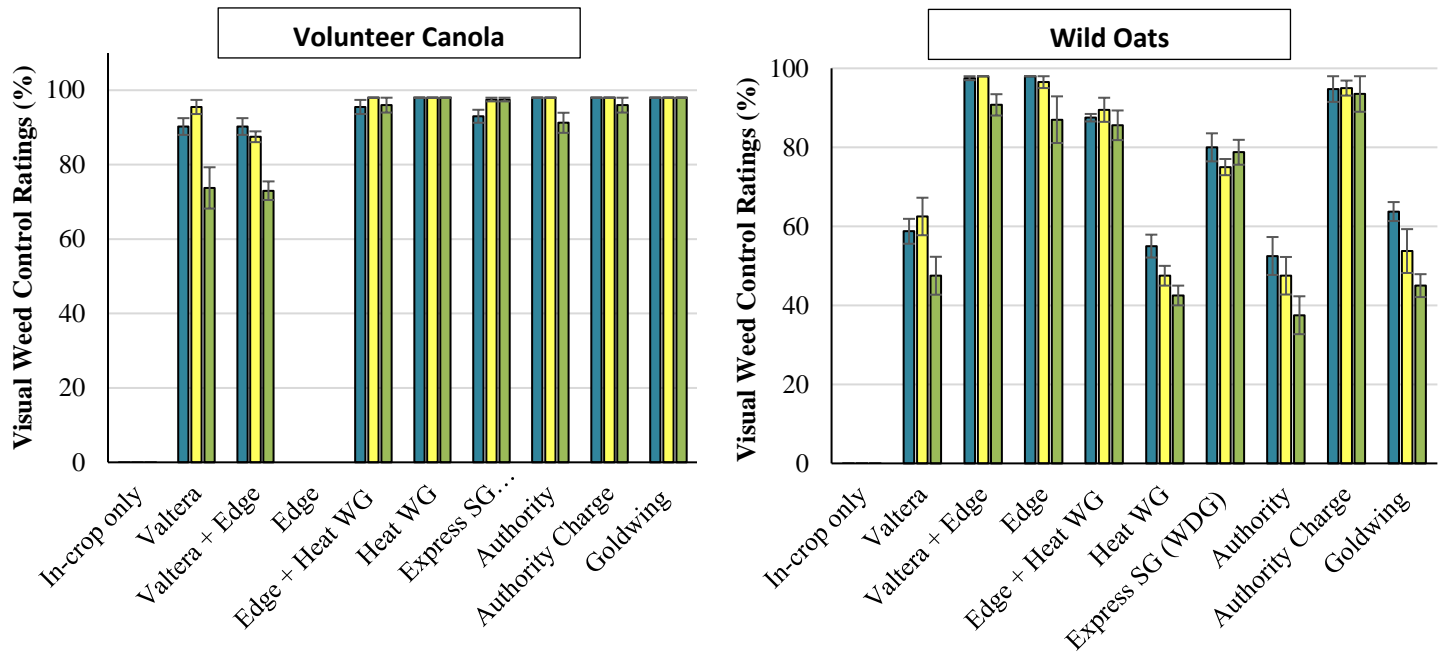
**Methodology:** The demonstration was arranged as a randomized complete block design with four replicates at Scott in 2018. The treatments consisted of nine PRE-seed herbicides and one check. All treatments had a single in-crop herbicide application.

**Results:** The results indicated that multiple mode of action PRE-seed herbicide layering resulted in the most comprehensive broadleaf and grass weed control. PRE-seed applications of Edge + Heat WG, Valtera + Heat WG and Authority Charge demonstrated prolonged weed control of both volunteer canola and wild oats (>85%).

Yield increases of 4.0 and 3.6 bu/ac from PRE-seed applications of Authority Charge and Edge + Heat WG compared to the in-crop herbicide check were also recorded. In most cases, except for Valtera applied alone, PRE-seed herbicide applications resulted in increased yield and reduced dockage compared to the check. It should be noted that overall yield differences were minimal and were not significantly different. Furthermore, as weed populations were sparse and variable within the plots, interpretation of results should be taken with caution.

**Table 1.** Plant densities (plants/m<sup>2</sup>), yield (bu/ac), protein (%) and dockage (%) in response to PRE-seed herbicide applications for improved weed control in peas at Scott, SK 2018.

Herbicide Applications	Plant density (plants/m <sup>2</sup> )	Yield (bu/ac)	Protein (%)	Dockage (%)
None	49	31.6	23.25	6.1
Valtera	48	31.6	23.275	4.0
Valtera + Edge	47	34.3	23.125	3.5
Edge	48	32.4	23.05	3.9
Edge + Heat WG	51	35.2	23.25	3.6
Heat WG	54	34.1	22.95	3.9
Express SG (WDG)	54	34.7	23.375	3.7
Authority	54	33.0	23.15	4.0
Authority Charge	55	35.6	22.775	3.3
Goldwing	55	33.8	23.35	3.8



**Figure 2.** Visual weed control ratings (%) of volunteer canola and wild oats in response to PRE-seed herbicide applications for improved weed control in peas at Scott, SK 2018.

*Visit our website for full reports on this project and many more!*

## EVENTS

The following events will be coming up in the new year. Make sure to watch our facebook and twitter account for more information closer to the dates!

**Crop Opportunity – March 2022**  
**WARC Field Day – July 2022**

*For more information about WARC, visit our website or follow us on social media!*

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**If you have questions, call our office at (306) 247-2001 or email at [exec.admin@warc.ca](mailto:exec.admin@warc.ca)**