

## Evaluation of sulfentrazone and pyroxasulfone for crop safety in dry peas

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Authority<sup>®</sup> Elite is a premixture of S-metolachlor and sulfentrazone. Anthem<sup>®</sup> Flex is a premixture of pyroxasulfone and carfentrazone. Anthem Flex is not labelled for use in dry shelled peas. Authority Supreme is a premixture of pyroxasulfone and sulfentrazone. Spartan<sup>®</sup> Charge is a premixture of carfentrazone and sulfentrazone.

An area at the Cook Agronomy Farm, previously in spring wheat, was sprayed with RT 3<sup>®</sup> (32 fl oz/A) and AMS (12 lb/100 gal) on April 24<sup>th</sup>. The trial area was prepared for planting with a one pass cultivator/harrow implement on May 11<sup>th</sup>. On May 12<sup>th</sup>, 'Banner' dry peas were planted at a rate of 154 lb/acre at a depth of 1.5 inches using a Monosem vacuum planter with a 10-inch row spacing. The herbicide treatments were applied on May 15<sup>th</sup> with a CO<sub>2</sub>-powered backpack sprayer set to deliver 10 gpa at 46 psi at 2.3 mph. Winds were out of the east at 9 mph, air temperature was 64°F and relative humidity was 45%. Three days after the treatments were applied, the trial area received 0.46 inch of rainfall. The soil at this site is a Palouse silt loam with 3.2% organic matter and a pH of 5.1. The trial area was harvested with a Kincaid 8XP plot combine on August 14<sup>th</sup>.

Ten days after application, crop injury was minimal and only detected in plots treated with Authority Elite and Authority Supreme. Seventeen days after application, crop injury was not visible in any of the herbicide-treated plots. None of the herbicides affected yield when compared to the nontreated check treatment and the average yield was 1850 lb/A.

| Treatment            | Rate    | Yield  |
|----------------------|---------|--------|
|                      | fl oz/A | lb/A   |
| Nontreated Check     | --      | 1880 a |
| Authority Supreme    | 5.8     | 1850 a |
| Authority Supreme    | 7.2     | 1700 a |
| Spartan Charge       | 3.75    | 1870 a |
| Authority Elite      | 25      | 1820 a |
| Sharpen <sup>®</sup> | 2       | 1880 a |
| Anthem Flex          | 3.0     | 1890 a |
| Anthem Flex          | 4.5     | 1780 a |
| Anthem Flex          | 9.0     | 1970 a |

### Disclaimer

**Some of the pesticides discussed in this presentation were tested under an experimental use permit granted by WSDA. Application of a pesticide to a crop or site that is not on the label is a violation of pesticide law and may subject the applicator to civil penalties up to \$7,500. In addition, such an application may also result in illegal residues that could subject the crop to seizure or embargo action by WSDA and/or the U.S. Food and Drug Administration. It is your responsibility to check the label before using the product to ensure lawful use and obtain all necessary permits in advance.**