

Use of saflufencil with multiple adjuvants as a desiccant on dryland potatoes. Harlene Hatterman-Valenti and Collin Auwarter.

This study was conducted at the Northern Plains Potato Growers Association non-irrigated research site near Grand Forks, ND to compare desiccation with saflufencil (BAS 800) when applied with different adjuvants. Red Norland seed pieces (2 oz) were planted on 36 inch rows and 12 inch spacing on June 11, 2009. Plots were 4 rows by 25 ft arranged in a randomized complete block design with 4 replicates. Extension recommendations were used for cultural practices throughout the year. The desiccant treatments were applied to the middle 2 of 4 rows using a CO₂ backpack sprayer equipped with 8002 flat fan nozzles with an output of 20 gpa and a pressure of 40 psi on August 31. Potatoes were harvested on October 13.

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|--------------------------|---------------|
| <u>Application Date:</u> | <u>9/3/09</u> |
| Air Temperature (F): | 74 |
| Rel. Humidity (%): | 68 |
| Wind (mph): | 2 |
| Soil Moisture: | Adequate |
| Cloud Cover (%): | 5 |

Potato desiccation with saflufencil alone and tank mixed with adjuvants.

| No | Name | Rate | Rate Unit | Code | -----9/8/09----- | | ----9/10/09--- | | ---9/14/09--- | | ---9/17/09--- | | Yield cwt/A | Yield cwt/A |
|----|---------------|------|-----------|------|------------------|--------------|----------------|--------------|---------------|------|---------------|------|-------------|-------------|
| | | | | | ---8 DAA--- | ---10 DAA--- | ---14 DAA--- | ---17 DAA--- | | | | | | |
| | | | | | Lvs | Stem | Lvs | Stem | Lvs | Stem | Lvs | Stem | Row A | Row B |
| 1 | BAS 800 | 2 | floz/a | A | 50c | 18b | 88b | 38b | 98a | 88b | 100a | 99a | 360a | 362a |
| 2 | BAS 800 | 2 | floz/a | A | 63b | 23a | 94a | 39b | 100a | 93ab | 100a | 100a | 417a | 389a |
| | Class Act NG | 2.5 | % v/v | A | | | | | | | | | | |
| | InterLock | 2 | floz/a | A | | | | | | | | | | |
| 3 | BAS 800 | 2 | floz/a | A | 73ab | 28a | 96a | 51ab | 100a | 97a | 100a | 100a | 357a | 348a |
| | Class Act NG | 2.5 | % v/v | A | | | | | | | | | | |
| | InterLock | 2 | floz/a | A | | | | | | | | | | |
| | Destiny HC | 1 | pt/a | A | | | | | | | | | | |
| 4 | BAS 800 | 2 | floz/a | A | 70ab | 25a | 95a | 49ab | 100a | 94ab | 100a | 100a | 383a | 381a |
| | Class Act NG | 2.5 | % v/v | A | | | | | | | | | | |
| | InterLock | 2 | floz/a | A | | | | | | | | | | |
| | Superb HC | 1 | pt/a | A | | | | | | | | | | |
| 5 | BAS 800 | 2 | floz/a | A | 80a | 36a | 96a | 65a | 100a | 97a | 100a | 100a | 394a | 387a |
| | NPAK AMS | 2.5 | % v/v | A | | | | | | | | | | |
| | Liquid | | | | | | | | | | | | | |
| | Destiny (MSO) | 1 | % v/v | A | | | | | | | | | | |
| 6 | BAS 800 | 2 | floz/a | A | 71ab | 28a | 96a | 55ab | 100a | 95ab | 100a | 100a | 409a | 371a |
| | Class Act NG | 2.5 | % v/v | A | | | | | | | | | | |
| | AG 07010 | 1 | pt/a | A | | | | | | | | | | |

Treatments were applied when plants were beginning to senescence. At 8 DAA the treatment with saflufencil alone (1) showed slower desiccation on both leaves and stems than treatments tank mixed with adjuvants. Saflufencil + NPAK AMS Liquid + Destiny (MSO) (treatment 5) had the highest percentage of desiccation during each rating. By trials end (17 DAA) leaves on all treatments had 100% desiccation and all stems had 100% desiccation except saflufencil alone, which had 99%. Total yield was not significantly different.