



XtendFlex[®] Soybean Systems Trial

Trial Objective

- Highlight the outstanding weed control of the XtendFlex[®] soybean system.
- Showcase the yield performance of the XtendFlex[®] soybean system.
- Gain a better understanding of the value of a whole system approach to soybean management.
- Explore the benefits of in-season soybean disease management with an application of Delaro[®] Complete fungicide at R3 growth stage.

Experiment/Trial Design

- Randomized Complete Block Design with three replications.
- Soybean products varied by location and were based on appropriate maturity group for the local markets.
- Treatments
- Basic Offer
 - » Locally adapted Bayer company soybean product.
 - » Acceleron[®] Seed Applied Solutions Standard* + Acceleron[®] IX-409 Insecticide Seed Treatment
 - » Herbicide Program
- PRE: Warrant[®] Herbicide (48 fl oz/acre) + Mauler[®] Herbicide (8 fl oz/acre)
- POST: Roundup PowerMAX[®] Herbicide (32 fl oz/acre) + Ammonium Sulfate (AMS) (17 lb/100 gal) + Warrant[®] Herbicide (48 fl oz/acre)
- POST: XtendiMax[®] herbicide with VaporGrip[®] Technology (Restricted Use Pesticide) (RUP)** (22 fl oz/acre) + OnTarget[®] (Drift Reduction Agent) (DRA) (0.5% v/v) + Sentris[™] (Volatility Agent) (VRA) (8 fl oz/acre).
- Premier Offer
 - » Locally adapted Bayer company soybean product.
 - » Acceleron[®] Seed Applied Solutions Standard* + ILeVO[®] Seed Treatment.
 - » Herbicide Program
- PRE: Warrant[®] Herbicide (48 fl oz/acre) + Mauler[®] Herbicide (8 fl oz/acre).
- POST: Roundup PowerMAX[®] Herbicide (32 fl oz/acre) + AMS (17 lb/100 gal) + Warrant[®] Herbicide (48 fl oz/acre).
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 - » Foliar Fungicide
- Delaro[®] Complete Fungicide (8 fl oz/acre) at R3 growth stage.
- Grower Standard
 - » Locally adapted, widely used soybean product.
 - » Herbicide Program
- PRE: Authority[®] Supreme Herbicide (8 fl oz/acre).
- POST: Roundup PowerMAX[®] Herbicide (32 fl oz/acre) + AMS (17 lb/100 gal).



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- POST: XtendiMax[®] herbicide with VaporGrip[®] Technology (RUP)** (22 fl oz/acre) + OnTarget[®] (DRA) (0.5% v/v) + Sentris[™] (VRA) (8 fl oz/acre).

*Combination of Acceleron[®] DX-109 Fungicide Seed Treatment/Acceleron[®] D-109 Fungicide Seed Treatment, Acceleron[®] DX-309 Fungicide Seed Treatment, and Acceleron[®] DX-612 Fungicide Seed Treatment/Acceleron[®] D-612 Fungicide Seed Treatment.

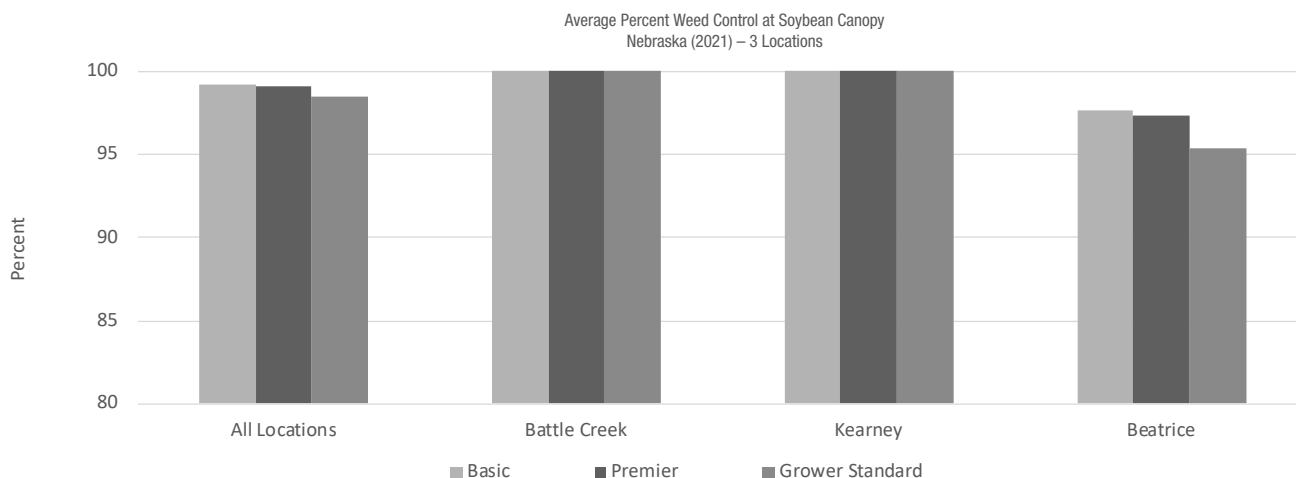
** XtendiMax[®] herbicide with VaporGrip[®] Technology is part of the Roundup Ready[®] Xtend Crop System, is a restricted use pesticide and must be used with VaporGrip[®] Xtra Agent (or an equivalent volatility reduction adjuvant). For approved tank-mix products (including VRAs and DRAs), nozzles and other important label information visit XtendiMaxApplicationRequirements.com.

- Disease Ratings, % Weed control, yield, and moisture data were collected at each location.

Nebraska Locations	Soil Type	Previous Crop	Tillage Type	Irrigation	Planting Date	Harvest Date	Potential Yield (bu/acre)	Seeding Rate (seeds/acre)
Battle Creek	Loamy Sand	Corn	Conventional	Center Pivot	5/17/21	10/05/21	75	150,000
Beatrice	Silty Clay Loam	Corn	No-till	Dryland	5/06/21	10/03/21	65	140,000
Kearney	Silt Loam	Corn	Conventional	Center Pivot	5/11/21	9/28/21	75	150,000

Understanding the Results

- The Roundup Ready[®] Xtend Crop System can provide season long, broad spectrum weed control by implementing overlapping residual herbicides and planting into clean, weed-free field conditions (data not shown).
- Weed control was consistently acceptable across all treatments (Figure 1).

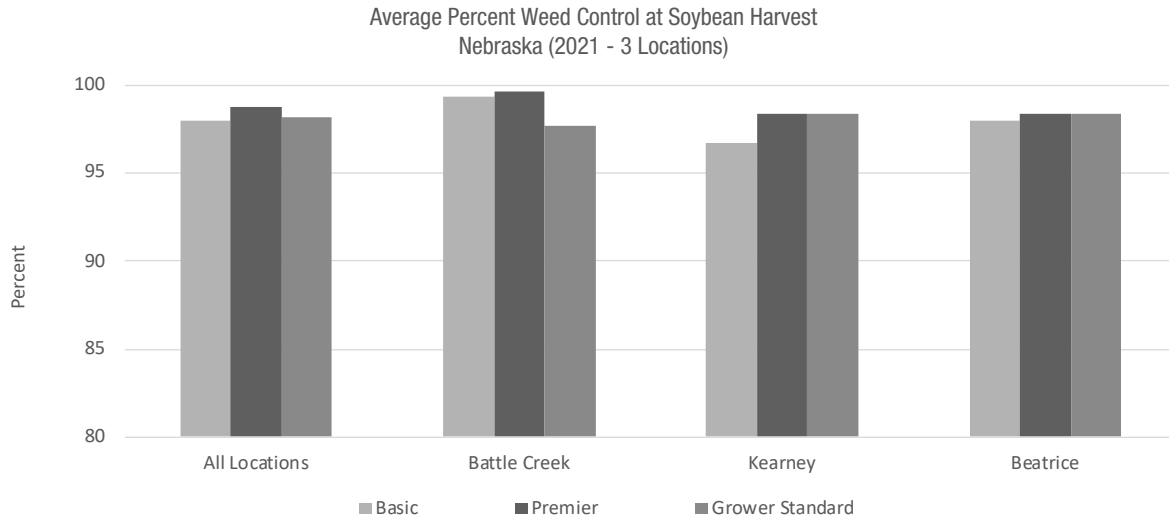


Basic Treatment: Bayer company soybean product; Acceleron[®] Seed Applied Solutions Standard + Acceleron[®] IX-409 Insecticide, Herbicides: PRE: Warrant[®] Herbicide (48 fl oz/acre) + Mauler[®] Herbicide (8 fl oz/acre); POST: Roundup PowerMAX[®] Herbicide (32 fl oz/acre) + Ammonium Sulfate (AMS) (17 lb/100 gal) + Warrant[®] Herbicide (48 fl oz/acre); POST: XtendiMax[®] herbicide with VaporGrip[®] Technology (Restricted Use Pesticide) (RUP) (22 fl oz/acre) + OnTarget[®] (Drift Reduction Agent) (DRA) (0.5% v/v) + Sentris[™] (Volatility Agent) (VRA) (8 fl oz/acre). Premier Treatment: Same as Basic Treatment except ILeVO[®] Seed Treatment replaced Acceleron[®] IX-409 Insecticide and Delaro[®] Complete Fungicide (8 fl oz/acre) was applied at R3 growth stage. Grower Standard Treatment: Locally adapted soybean product; Herbicides: PRE: Authority[®] Supreme Herbicide (8 fl oz/acre); POST: Roundup PowerMAX[®] Herbicide (32 fl oz/acre) + AMS (17 lb/100 gal); POST: XtendiMax[®] herbicide with VaporGrip[®] Technology (RUP) (22 fl oz/acre) + OnTarget[®] (DRA) (0.5% v/v) + Sentris[™] (VRA) (8 fl oz/acre).

Figure 1a. Average percent of weed control at soybean canopy.



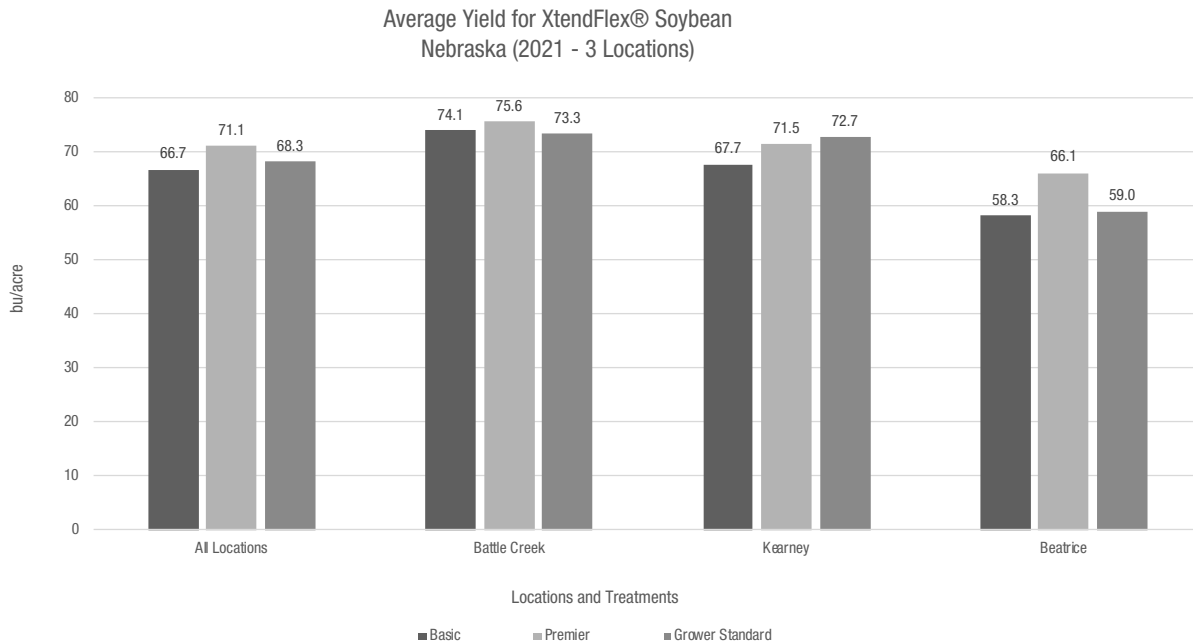
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Figure 1b. Average percent of weed control at soybean harvest.

- Disease pressure was inconsequential at each of the locations.
- Yield response between treatments varied by location (Figure 2).



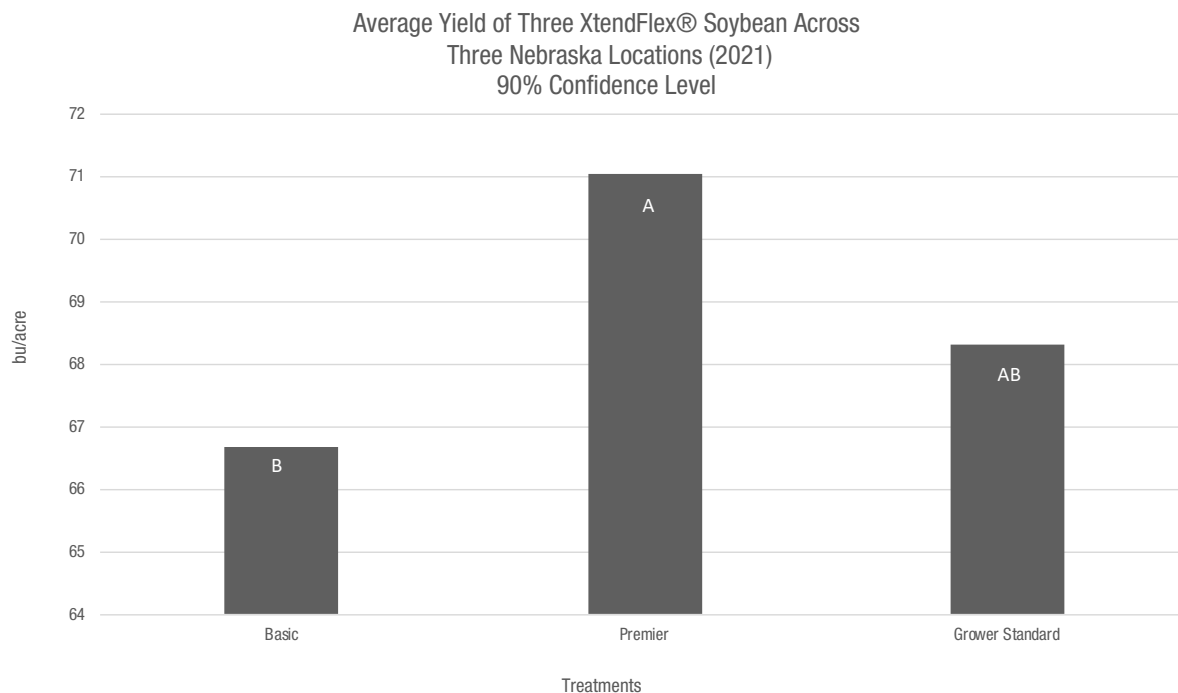
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Figure 2. Average yield for three XtendFlex[®] soybean systems in Nebraska (2021).



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- The Across Location average yields showed the improved yield performance of the Premier Offer treatment relative to the other treatments (Figure 3).
 - » At a 90% confidence level the Premier Offer treatment showed statistically significant yield improvement from the Basic Offering but not the Grower Standard treatment (Figure 3).



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Figure 3. Average yields across the three locations demonstrated the advantage of the Premier Treatment at a 90% Confidence Level. (Battle Creek, Beatrice, and Kearney, Nebraska, 2021)

Key Learnings

- In this trial soybean product selection along with an in-season fungicide application consistently provided the highest yields.
- In-season fungicide applications can provide enhanced disease protection along with potentially improved yield performance.
- A grower should always consult their local sales representative and agronomist to select the appropriate variety for their specific environmental conditions and yield goal.

Legal Statements

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