

PLANT RESPONSE

Synergy and Brio Treatment applications in winter wheat, spring wheat, and spring barley

Treatment		Application			Timing
		Synergy (L ac ⁻¹)	Brio (L ac ⁻¹)	Toggle (L ac ⁻¹)	
Winter Wheat					
1	Synergy	0.473			Foliar with topdress fertilizer or herbicide
2	Brio single rate		0.473		Foliar with topdress fertilizer or herbicide
3	Brio double rate	0.946			Foliar with topdress fertilizer or herbicide
4	Toggle			0.946	Foliar with topdress fertilizer or herbicide
5	Grower Standard				
Spring Wheat					
1	Synergy	0.946			Applied with fertilizer in-furrow
2	Brio		0.473		Foliar with herbicide
3	Synergy & Brio	0.946	0.473		Synergy: applied with fertilizer in furrow, Brio: foliar with herbicide
4	Grower Standard				
Spring Barley					
1	Synergy	0.946			Applied with fertilizer in-furrow
2	Brio		0.946		Foliar with herbicide
3	Synergy & Brio	0.946	0.946		Synergy: applied with fertilizer in furrow, Brio: foliar with herbicide
4	Grower Standard				



Winter
Wheat
7/26
8/26

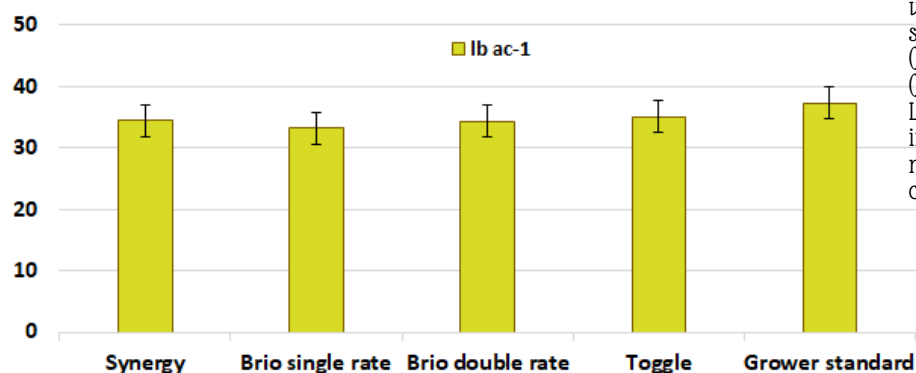
Spring
Wheat
7/26
8/26



Spring
Barley
7/26
8/26

PLANT RESPONSE

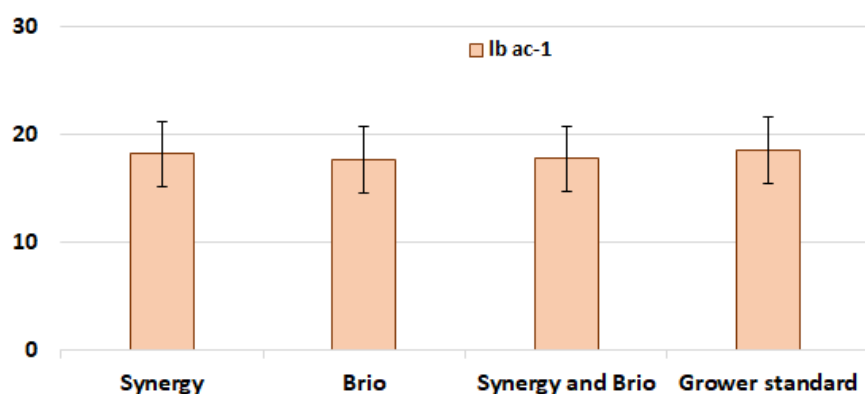
Yield in winter wheat stands under various fertilizer amendments Synergy and Brio compared to accustomed fertilization practices *



Treatments for the winter wheat trial included (1) Foliar application of Synergy at 0.946 L ac-1, (2) and (3) were foliar applications of Brio at single and double application rates (0.0055 and 0.11 L ac-1 respectively), (4) foliar application of Toggle at 0.11 L ac-1. A control treatment is also included where standard fertility and management techniques are conducted.

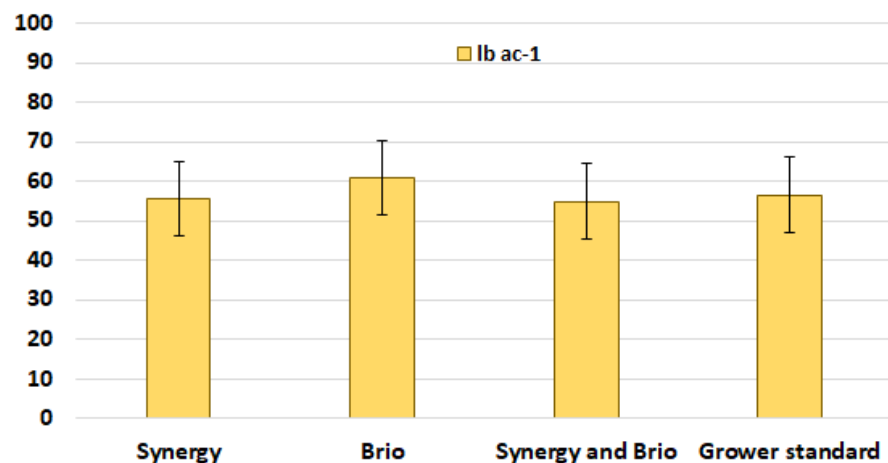
*Values with no letters determine no statistical difference across treatments

Yield in spring wheat stands under various fertilizer amendments Synergy and Brio compared to accustomed fertilization practices *



Synergy and Brio are fertilizer enhancement compounds that can be applied in mixtures with fertilizer and herbicide compounds (as in furrow or foliar respectively). Treatments in spring wheat and barley consisted of (1) In furrow application of Synergy at 0.946L ac-1 with fertilizer, (2) Foliar application of Brio at 0.473 L ac-1 shortly after Esteem (Fluroxypyr at 0.32 lb ac-1, Clopyralid at 0.11 lb ac-1 and MCPA at 0.365 L ac-1) herbicide application, (3) Application of Synergy and fertilizer in furrow with foliar application of Brio shortly after Esteem herbicide application at the same rate previously mentioned for treatment (2).

Yield in spring barley stands under various fertilizer amendments Synergy and Brio compared to accustomed fertilization practices *



In general, fertilizer enhancements such as Synergy and Brio had no effect in moisture content (P=0.9349, P=0.4348, and P=0.3619 for winter wheat, spring wheat and spring barley, respectively), emergence count in winter wheat (P=0.0614), test weight P=0.3300, P=0.9342 and P=0.3892 for winter wheat, spring wheat and spring barley respectively), germination rate in spring wheat (P=0.5744) and in barley (P= 0.1668), biomass above (P=0.8889) and below (P=0.6980) in spring wheat, and number of tillers in barley (P=0.6097). This means that Synergy and Brio were not sufficient to increase yield or impact other variables such as germination rate, emergence, and number of tillers.