

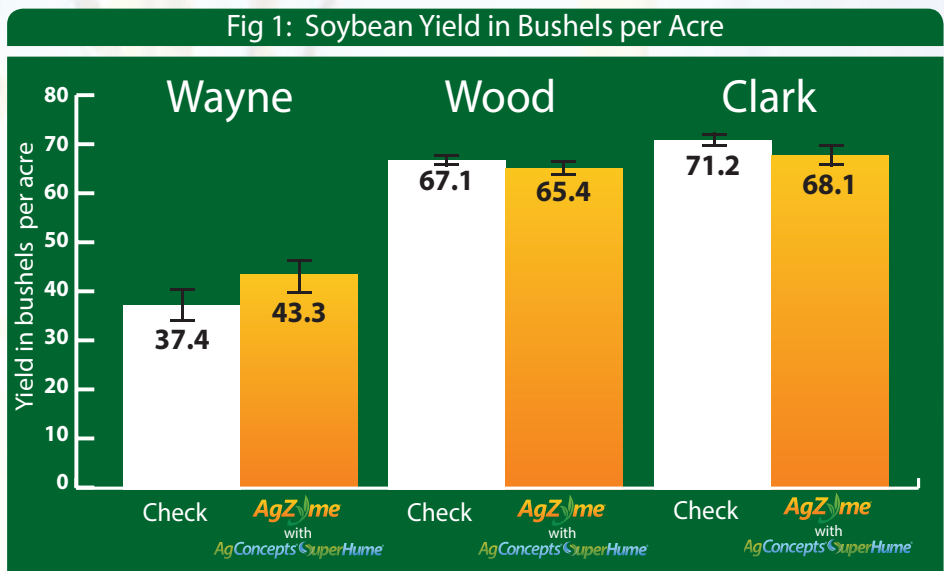
AgZyme[®] and AgConcepts[®] SuperHume[®] Increases Soybean Yield at one site by 5.9 bu/acre

Iron, Manganese and Zinc tissue levels all showed statistically significant increase at all sites with Ohio State University at three sites in Ohio

Ag Concepts[®] Corp worked with Ohio State University at three sites in Ohio, on a study investigating the effects of AgZyme[®] and Ag Concepts[®] Super Hume[®] on soybeans. Metrics included tissue nutrient levels at the V5 growth stage and yield. All sites showed significant increases in tissue levels of Iron (Fe), Manganese (Mn), and Zinc (Zn) as shown in **Table 1**. As seen in **Figure 1**, two sites, Wood and Clark, yielded more than 65 bu per acre on treated and untreated plots, but did not show significant yield difference. One site, Wayne, showed numerical increase in yield 43.3 bu/acre treated vs 37.4 bu/acre untreated.

Nutrient tissue response was encouraging but did not necessarily lead to increased yield. Although the tissue levels responded to the treatments, the nutrients were not in the deficient range. Based on the Law of the Minimum, the maximum yield is determined by the limiting factor. In this case, the limiting factor was not any of the nutrients that showed a response to the treatments.

Further investigation showed the two sites that showed flat yield response had better soil nutrient levels, saw more growing degree days, and received more precipitation through the season. This indicates that the products influenced yield more in a more challenging environment. This has been an anecdotal observation on these products for several years. Yield response to these products is generally more pronounced when the crop sees stressors in the growing season. Additional research has also indicated that humic acid applications can lead to yield response in dry-land systems during low precipitation years.



Site	Treatment	B	Cu	Fe	Mn	Zn
Wayne	Check	53	11	405 (a)	133 (a)	37 (a)
	AgZyme and AgConcepts SuperHume	52	11	418 (b)	142 (b)	41 (b)
Wood	Check	69	12	1,121 (a)	29 (a)	55 (a)
	AgZyme and AgConcepts SuperHume	69	12	1,465 (b)	33 (b)	58 (b)
Clark	Check	57	12	643 (a)	83 (a)	40 (a)
	AgZyme and AgConcepts SuperHume	60	12	775 (b)	100 (b)	47 (b)

*Treatments followed by same letter do not differ significantly