Western Illinois University School of Agriculture 2009 Soybean Variety Trials-Yield Summary

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Variety	Group	Company/ Source	Organic Allison Farm Planted 6/25 Yield (Bu/A)	Alpha = 0.05	Rank	Conventional WIU Site Planted 6/9 Yield (Bu/A)	Alpha = 0.05	Rank
27A9	2.7	Blue River Hybrids	46.8	a	1	44.7	bcde	9
Iowa 3027	3.0	Clarkson Grain	45.4	ab	2	45.4	bcde	8
30A7	3.0	Blue River Hybrids	45.2	ab	3	50.7	ab	2
DFF 306	3.0	American Organics	42.1	abc	4	49.2	abcd	5
348.TC	3.4	eMerge/ Schillinger Seed	41.2	bc	5	54.4	a	1
CH 3019	3.0	Mark Seed Co.	38.6	cd	6	39.3	ef	15
3033	3.0	Proganics	37.9	cd	7	43.5	cde	12
317.TC	3.1	eMerge/ Schillinger Seed	37.8	cd	8	49.8	abc	3
2888	2.8	Proganics	37.6	cde	9	33.7	f	16
MOFC 5148	3.7	MOFC	35.8	def	10	44.5	bcde	10
389F.YC	3.8	eMerge/ Schillinger Seed	35.4	def	11	45.6	bcde	7
20736	3.6	US Soy	34.7	def	12	42.6	de	14
20737	3.7	US Soy	33.0	ef	13	47.5	abcd	6
20333	3.3	US Soy	32.3	f	14	43.6	cde	11
34A7	3.4	Blue River Hybrids	31.1	f	15	43.2	cde	13
39A7	3.9	Blue River Hybrids	N/A			49.2	abcd	4
			LSD = 4.7			LSD = 7.0		

Research Site Descriptions

Organic Site

The Allison Organic Research Farm is located 7 miles north of Sciota, IL in southwestern Warren County. The variety trial was located in field 2B East which is mapped as a Sable silty clay loam soil (poorly drained). The trial was arranged as a complete randomized block design with 4 replications. Two row plots were planted on 6/25/08 with a Buffalo 4 row planter at a rate of 175,000 seeds/acre. The entire field was cultivated twice and sub-plots were hand weeded. Weed-free sub-plots ranging from 25-35' in length were harvested with a KEM plot combine on 12/1/09. Some of the later maturing varieties were still green when growth was terminated by a killing frost. Weather was much wetter (+20 inches) and cooler (-420 GDD) than average (April-October).

Conventional Site

The WIU research farm is located ~ 2 miles north of Macomb in McDonough Co, IL. The variety trial was located in block 14 which is mapped as a Downs silt loam soil (moderately well drained). The trial was arranged as a complete randomized block design with 4 replications. Two row plots were planted on 6/9/09 with a Kincaid JD71, 2 row plot planter at a rate of 160,000 seeds/acre. Weed control included a grass herbicide and moderate hand weeding to remove broad leaf weeds. Sub plots (~ 15 ° in length) were harvested with a KEM plot combine on 11/5/09. Weather was wetter and cooler than average during the growing season.

Discussion

Only two varieties (Blue River Hybrids 30A7 and American Organics DFF306) ranked in the top significance group at both sites. Three additional varieties (Blue River Hybrids 27A9, IA 3027 and eMerge 348TC) ranked in the top 2 significance groups at both sites. Two varieties (US Soy 20737 and eMerge 317TC) were in the top significance group at the conventional site but performed poorly at the organic site. One variety (Blue River Hybrids 39A7) performed well at the conventional site but was not planted at the organic site. Blue River Hybrids 34A7, a variety which has performed very well in the past performed poorly at both sites. Interestingly, BRH 34A7 performed very well in a different field at the Allison Farm this year when planted on 6/5/09. The greater than 2 week difference in planting data appears to be the main reason why some varieties yielded in excess of 10 bushels more at the conventional site as compared to the organic site.