

Three New Productive Group IV Conventional Soybeans

S07-5049 (RM 4.1), S07-3666 (RM 4.5), S07-5151 (RM 4.6)

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Conventional varieties were primarily grown up to the late 1990's, but now 90 percent of all US soybean acreage is devoted to RR varieties. Private companies like Pioneer, Monsanto and Syngenta have concentrated their soybean breeding efforts toward the development of Roundup (RR) tolerant soybeans. These and other companies have had less effort in the development of non-Roundup Ready or conventional soybeans. A large part of conventional variety development is now being conducted by soybean scientists in public institutions like the University of Missouri. In the last few years there has been resurgence in grower interest in conventional soybeans. Some growers feel that they have better profit potential by going back to

a conventional herbicide system since conventional soybean seed is about half as much as RR seed; and additional herbicides are now needed in a RR system to get the good weed control because of Roundup tolerant weeds. Most of the conventional acreage being grown now is devoted to group V varieties. Demand is high for earlier maturing conventional group IVs, but few good conventional IV soybeans are available. The University of Missouri –Delta Center has developed three new productive group IV soybean varieties that show equal yield of widely grown RR cultivars of similar maturity in tests in Missouri and across the southern United States. Approximately 1000 bushels of seed will be for seed producers will be available for 2011. The new varieties are S07- 5049, very early group IV, S07-3666 and S07-5151 both mid group IV. Key features and performance of each in southeast Missouri and southern regional uniform tests are as follows:

S07-5049- Key Features and Performance

- 4.1 to 4.2 Maturity
- Shows good performance across soil types
- Resistant to stem canker
- MR to SDS
- Chloride Excluder

S07-5049 Yield Means by soil type, Southeast Missouri, 2008-09

Variety	Loam	Clay	Sand	Combined
S07-5049	64.2	55.8	59.9	60.0
AG3905	60.3	50.1	37.5	53.2
CSR 4152nRR	59.8	50.1	54.6	54.6
# Locations	4	4	1	9

Southern Uniform Regional Preliminary IV Early, 2009

Variety	Yld Bu/A	Mat	Ht	Lod
S07-5049	54.8	+1	31	1.8
AG3906	46.9	0	27	1.4
# Locations	9			

S07-3066- Key Features and Performance

- 4.5 maturity
- Resistant to stem canker
- Yields comparative to RR varieties of similar maturity
- Shows good performance on various soil types

S07-3666 Yield Means by soil type, Southeast Missouri, 2008-09

Variety	Loam	Clay	Sand	Combined
S07-3666	62.7	61.8	67.0	62.8
AG4703	69.1	57.2	54.0	62.1
# Loc	4	4	1	9

2009 Southern Regional Uniform Preliminary IV Early

Variety	Yld Bu/A	Mat	Ht	Lod
S07-3666	58.3	+2	31	1.8
AG4403	55.8	0	31	1.4
# Loc	9			

S07-5151- Key Features and Performance

- 4.6 maturity, Mid- group IV
- Shows excellent yield on various soil types
- Resistant to stem canker
- Taller growth for tough soils

Overall Yield Means by soil type, Southeast Missouri, 2008-09

Variety	Loam	Clay	Sand	Combined
S07-5151	61.4	66.8	62.2	63.9
AG4703	69.1	60.5	54.0	63.6
# Loc	4	4	1	9

2009 Southern Regional Uniform Preliminary IV Early

Variety	Yld Bu/A	Mat	Ht	Lod
S07-5151	57.8	+1	32	1.9
AG4403	55.8	0	31	1.4
# Loc	9			

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