

## FIELD EXPERIMENT HISTORY

**Title:** Roundup Ready Hybrid Yield Comparison  
**Experiment:** 01Roundup **Trial ID** 1425 **Year:** 1999  
**Personnel:** J. G. Lauer, K.D. Kohn, P. J. Flannery  
**Location:** Arlington, WI **County:** Columbia  
**Supported By:** HATCH

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### Site Information

**Field:** 358 **Previous Crop:** Soybean **Soil Type:** Plano silt loam  
**Soil Test:** **Date:** **pH** 6.8 **OM (%)** 3.1 **P (ppm)** 45 **K (ppm)** 240

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### Plot Management

**Tillage Operations:** Fall Chisel Plow Soil Finisher 1 Cultivation  
**Fertilizer:** **Preplant Analysis:** 46-0-0 **Rate lbs/A:** 325 **Date:** 4 /23/99  
**Starter Analysis:** 6-24-24 **Rate lbs/A:** 150 **Date:** 5 /10/99  
**Post plant Analysis:** N/A **Rate lbs/A:** N/A **Date:** N/A  
**Manure:**  
**Herbicide:** See Factors **Insecticide:** None  
**Irrigation:** None **Hybrid:** See Factors  
**Planting Date:** 5/10/99 **Planting Depth:** 1.5" **Row Width** 30"  
**Target Plant Density:** 29000 plants per acre **Planting Method:** Kinze Plot Planter  
**Harvest Date:** 10/18/99 **Harvest Method:** Kincaid Plot Combine

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### Experimental Design

**Design:** RCB-Split **Replications:** 4  
**Plot Size Seeded:** 22'x10' **Experiment Size:** 0.005 A  
**Harvest Plot Size:** 20' x 5' **Harvest Plant Density:** 29500 plants per acre

### Factors/Treatments:

#### Herbicide Applied

Traditional: Frontier @1.5 pts/A, Bladex @ 2.2 lbs/A  
Roundup: 32 oz/A on 6/9 and 32 oz/A on 6/18

#### Hybrids

Dekalb DK443, Dekalb DK448RR, Dekalb  
DK493, Dekalb DK493RR, Dekalb DK512,  
Dekalb DK512RR, Dekalb DK566, Dekalb  
DK566RR, Dekalb DK580, Dekalb DK580RR,  
Dekalb DK626, Dekalb DK626RR, NC+ 2019R,  
NC+ 4339R, NC+ 5029R,

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**Results: Table E-26 and E-27.**

**Table E-26. Roundup Ready Hybrid Yield Comparison Trial  
Arlington, WI 1999.**

Hybrid	Herbicide Applied	Yield bu/A	Moisture %	Test weight lbs/bu	Broken/ lodged %	Final population plants/A	Silking Date DOY	Plant Height inches
Dekalb DK443	Traditional	202	16.3	58.1	1.9	29403	202	99.5
Dekalb DK448RR	Traditional	199	16.4	58.9	0.4	29185	201	98.0
Dekalb DK493	Traditional	206	17.9	55.1	2.3	28967	202	94.8
Dekalb DK493RR	Traditional	209	17.9	55.5	0.7	29839	202	96.8
Dekalb DK512	Traditional	219	19.7	52.4	0.7	31145	203	98.8
Dekalb DK512RR	Traditional	225	19.7	52.2	1.4	30492	204	101.0
Dekalb DK566	Traditional	215	21.3	53.4	3.3	30056	205	101.5
Dekalb DK566RR	Traditional	220	20.9	53.9	1.5	29621	203	101.8
Dekalb DK580	Traditional	223	21.8	52.9	3.8	29185	206	96.5
Dekalb DK580RR	Traditional	230	21.7	53.1	1.9	28967	206	97.8
Dekalb DK626	Traditional	218	27.5	51.6	3.6	28096	206	108.0
Dekalb DK626RR	Traditional	206	30.4	52.0	1.4	28967	207	109.8
NC+ 2019R	Traditional	203	17.4	55.6	2.6	28096	202	92.3
NC+ 4339R	Traditional	248	23.9	51.3	0.7	30710	204	99.3
NC+ 5029R	Traditional	214	29.6	52.3	3.9	29185	207	103.0
Mean		216	21.5	53.9	2.0	29461	204	99.9
<b><u>Probability%</u></b>								
Hybrid (H)		1.3	0.0	0.0	85.0	67.1	0.6	0.1
<b><u>LSD 10%</u></b>								
Hybrid (H)		11	1.3	0.8	NS	NS	1	3.5
<b><u>CV%</u></b>								
		4	5	1	101	8	4	3

**Table E-27. Roundup Ready Hybrid Yield Comparison Trial  
Arlington, WI 1999.**

Herbicide Applied	Hybrid	Yield bu/A	Moisture %	Test weight lbs/bu	Broken/ lodged %	Final population plants/A	Silking Date DOY	Plant Height inches
Traditional		217	22.0	53.9	1.6	29451	204	99.9
Roundup		215	21.7	53.9	2.0	29597	204	99.7
	Dekalb DK448RR	201	16.5	58.3	0.2	30274	201	98.1
	Dekalb DK493RR	206	17.7	55.4	1.5	28967	202	97.1
	Dekalb DK512RR	221	19.2	52.7	2.4	29403	204	101.4
	Dekalb DK566RR	218	20.8	53.9	1.5	29076	204	101.3
	Dekalb DK580RR	228	21.4	53.1	2.0	29403	206	97.3
	Dekalb DK626RR	204	30.9	52.1	2.2	29294	207	110.8
	NC+ 2019R	203	17.6	55.7	2.0	29076	202	92.4
	NC+ 4339R	243	23.3	51.2	1.4	30819	204	99.1
	NC+ 5029R	217	29.4	52.4	3.1	29403	206	101.0
Traditional	Dekalb DK448RR	199	16.4	58.9	0.4	29185	201	98.0
Roundup	Dekalb DK448RR	204	16.7	57.7	0.0	31363	202	98.3
Traditional	Dekalb DK493RR	209	17.9	55.5	0.7	29839	202	96.8
Roundup	Dekalb DK493RR	204	17.5	55.3	2.4	28096	201	97.5
Traditional	Dekalb DK512RR	225	19.7	52.2	1.4	30492	204	101.0
Roundup	Dekalb DK512RR	217	18.7	53.1	3.4	28314	203	101.8
Traditional	Dekalb DK566RR	220	20.9	53.9	1.5	29621	203	101.8
Roundup	Dekalb DK566RR	215	20.7	53.9	1.5	28532	205	100.8
Traditional	Dekalb DK580RR	230	21.7	53.1	1.9	28967	206	97.8
Roundup	Dekalb DK580RR	226	21.0	53.1	2.2	29839	206	96.8
Traditional	Dekalb DK626RR	206	30.4	52.0	1.4	28967	207	109.8
Roundup	Dekalb DK626RR	202	31.3	52.1	3.0	29621	207	111.8
Traditional	NC+ 2019R	203	17.4	55.6	2.6	28096	202	92.3
Roundup	NC+ 2019R	204	17.7	55.9	1.5	30056	202	92.5
Traditional	NC+ 4339R	248	23.9	51.3	0.7	30710	204	99.3
Roundup	NC+ 4339R	238	22.6	51.1	2.1	30928	204	99.0
Traditional	NC+ 5029R	214	29.6	52.3	3.9	29185	207	103.0
Roundup	NC+ 5029R	221	29.1	52.5	2.2	29621	206	99.0
Mean		216	21.8	53.9	1.8	29524	204	99.8
<b>Probability%</b>								
Herb (E)		74.7	63.9	95.6	38.3	80.8	88.8	78.3
Hybrid (H)		0.0	0.0	0.0	5.0	71.4	0.0	0.0
E x H		74.5	58.6	34.8	38.2	38.9	23.4	67.3
<b>LSD 10%</b>								
Herb (E)		NS	NS	NS	NS	NS	NS	NS
Hybrid (H)		9	0.9	0.6	1.5	NS	1	2.4
E x H		NS	NS	NS	NS	NS	NS	NS
<b>CV%</b>								
		6	5	1	90	7	5	3