

## Kentucky Silage Hybrid Performance Report, 2012

### Combined locations (Boyle, Casey and Mason Counties)

2012 Combined Locations		Milk Line	Tons/A	Milk Yield <sup>3</sup>		NEL <sup>4</sup>	NEG	Quality, % <sup>5</sup>			
Company	Brand/Hybrid	<sup>1</sup>	35% DM <sup>2</sup>	lbs/ton	lbs/acre	b	b	CP	ADF	NDF	Lignin
Agrigold	A6517VT3Pro	0.69	20.2	3,341	23,386	0.84	0.57	7.1	18.9	33.6	2.8
Agrigold	A6573VT3Pro	0.71	21.1	3,380	24,696	0.84	0.57	7.3	18.7	33.6	2.4
Augusta	A008VT3	0.68	20.1	3,334	23,356	0.82	0.55	7.3	20.2	36.3	2.7
Augusta	A5462 GT3000	0.67	21.0	3,332	24,704	0.83	0.56	7.0	19.3	35.2	2.5
Beck's	7988BR	0.61	20.1	3,276	22,970	0.81	0.54	7.3	20.3	37.2	3.2
Beck's	XL6903HR	0.65	21.4	3,223	23,973	0.81	0.54	7.3	19.8	36.2	3.0
Caverndale Farms	CF 1026 GT	0.36	21.5	2,984	22,670	0.73	0.46	7.3	24.1	42.7	3.8
Caverndale Farms	CF 848 3000 GT	0.72	21.0	3,287	24,373	0.81	0.54	7.0	20.1	36.9	2.7
Dekalb	DKC 63-87 VT2PRO	0.56	20.2	3,323	23,488	0.84	0.56	7.5	18.8	34.4	2.7
Dekalb	DKC 65-19 VT2PRO	0.60	19.7	3,289	22,869	0.84	0.57	7.4	18.7	34.6	2.6
Dyna-Gro	D56VP24	0.63	21.5	3,382	25,555	0.83	0.56	6.9	19.4	35.6	2.7
Dyna-Gro	D57VP75	0.56	<b>23.3</b>	3,333	27,346	0.80	0.53	7.0	21.8	38.9	3.3
Mycogen	F2F626	0.53	16.6	3,243	18,763	0.82	0.55	7.0	21.0	38.2	2.9
Mycogen	TMF2H918	0.29	<b>23.9</b>	3,111	26,628	0.76	0.50	7.0	23.8	43.2	3.4
Pioneer	P1376XR	0.42	19.5	3,377	22,895	0.84	0.58	7.8	19.4	35.3	2.4
Pioneer	P2088AMI	0.58	<b>22.7</b>	<b>3,519</b>	<b>27,849</b>	0.85	0.57	7.6	18.3	33.9	2.4
Seed Consultants	SCS 11HQ31	0.56	19.6	3,412	23,444	0.82	0.55	7.7	20.0	35.5	2.7
Seed Consultants	SCS 11HQ60	0.46	20.5	3,389	24,134	0.84	0.57	7.6	19.7	35.0	2.6
Southern States	SS 65-32 GENVT3Pro	0.64	20.0	3,267	22,738	0.81	0.54	7.1	20.0	36.0	3.1
Southern States	SS 824 VT3Pro	0.65	21.5	3,220	24,084	0.81	0.54	7.2	20.5	37.0	3.2
Syngenta	N72F	0.71	20.3	3,136	21,962	0.76	0.50	6.8	23.6	42.0	3.4
Syngenta	N82V	0.61	<b>22.1</b>	3,297	25,491	0.81	0.54	6.8	20.1	36.7	3.1
Wyffels	W8681VT3	0.67	19.2	3,345	22,609	0.83	0.56	7.3	18.9	34.8	2.3
	LSD (0.10)	0.37	2.4								
	CV	49	10.2								
	Grand Mean	0.59	20.7	3,296	23,912	0.82	0.55	7.2	20.2	36.6	2.9

<sup>1</sup> Milk line measures the starch formation on the corn kernel. 0.75 milk line is considered ideal for silage.

<sup>2</sup> Yields adjusted to 35% dry matter; highest numerical yield is bold with gray box; bold yields are not significantly different from highest yield.

<sup>3</sup> Milk Yield was calculated with Milk 2000. Milk per ton of silage was rounded to the nearest ten and milk per acre was rounded to the nearest hundred.

<sup>4</sup> Net energy for lactation (NEL) and gain (NEG).

<sup>5</sup> Quality measurements based on dry weight and are calculated from composite samples at each site

### Corn Hybrid Performance for Silage, Boyle County, Kentucky, 2012.

Note: Single location data is not as reliable as the combined location average.

2012 Boyle County, KY		Milk	Tons/A	Milk Yield		NEL	NEG	NEG	Quality, %			
Company	Brand/Hybrid	Line	35% DM	lbs/ton	lbs/acre	Mcal/lb	Mcal/lb	CP	ADF	NDF	Lignin	
Agrigold	A6517VT3Pro	1.00	21.4	2,887	21,624	0.81	0.54	7.0	20.1	35.2	2.8	
Agrigold	A6573VT3Pro	1.00	21.5	2,847	21,457	0.81	0.53	6.3	19.6	35.8	2.6	
Augusta	A008VT3	1.00	19.3	2,767	18,691	0.76	0.49	7.5	24.1	42.9	3.1	
Augusta	A5462 GT3000	1.00	18.0	2,766	17,394	0.78	0.51	6.7	21.4	39.6	2.6	
Beck's	7988BR	1.00	19.1	2,587	17,264	0.72	0.46	6.7	24.8	46.0	3.6	
Beck's	XL6903HR	1.00	19.8	2,669	18,496	0.76	0.49	6.8	22.0	40.8	3.2	
Caverndale Farms	CF 1026 GT	0.75	19.7	2,613	18,047	0.71	0.44	7.2	25.1	45.3	3.7	
Caverndale Farms	CF 848 3000 GT	1.00	19.2	2,627	17,653	0.75	0.48	6.3	21.6	41.2	2.8	
Dekalb	DKC 63-87 VT2PRO	0.75	17.0	2,778	16,561	0.76	0.49	7.4	22.7	41.3	3.3	
Dekalb	DKC 65-19 VT2PRO	1.00	17.1	2,800	16,726	0.79	0.52	7.0	20.4	39.6	3.2	
Dyna-Gro	D56VP24	0.75	20.0	2,760	19,288	0.76	0.49	6.9	22.5	42.4	3.6	
Dyna-Gro	D57VP75	1.00	20.5	2,813	20,216	0.71	0.45	6.3	26.7	47.0	4.0	
Mycogen	F2F626	1.00	17.5	2,935	17,977	0.82	0.55	7.1	19.5	38.1	2.8	
Mycogen	TMF2H918	.	19.7	2,508	17,293	0.68	0.41	7.1	26.9	48.3	4.3	
Pioneer	PI 376XR	.	18.6	2,985	19,398	0.84	0.58	7.8	18.8	36.2	2.1	
Pioneer	P2088AMI	1.00	23.4	3,063	25,086	0.79	0.53	7.4	21.2	39.3	2.7	
Seed Consultants	SCS 11HQ31	0.75	18.0	2,899	18,264	0.77	0.51	7.8	22.6	40.3	3.2	
Seed Consultants	SCS 11HQ60	.	21.3	2,932	21,824	0.82	0.55	7.4	19.7	36.5	2.4	
Southern States	SS 65-32 GENVT3Pro	1.00	20.4	2,783	19,903	0.79	0.52	6.9	20.1	36.6	2.9	
Southern States	SS 824 VT3Pro	1.00	22.5	2,799	22,010	0.78	0.51	7.1	22.1	39.4	3.0	
Syngenta	N72F	1.00	18.2	2,389	15,246	0.63	0.38	6.5	30.6	53.4	4.2	
Syngenta	N82V	0.75	20.3	2,755	19,574	0.75	0.48	6.6	22.9	41.9	3.3	
Wyffels	W8681VT3	1.00	17.3	2,808	17,035	0.77	0.51	7.0	21.9	41.6	3.0	
LSD (0.10)			3.6									
CV			13.2									
Grand Mean			19.6	2,773	19,001	0.76	0.50	7.0	22.5	41.2	3.1	

### Corn Hybrid Performance for Silage, Casey County, Kentucky, 2012.

Note: Single location data is not as reliable as the combined location average.

2012 Casey County, KY		Milk	Tons/A	Milk Yield		NEL	NEG	Quality, %			
Company	Brand /Hybrid	Line	35% DM	lbs/ton	lbs/acre	Mcal/lb	Mcal/lb	CP	ADF	NDF	Lignin
Agrigold	A6517VT3Pro	0.50	16.8	3,690	21,474	0.82	0.56	7.5	20.7	36.7	3.3
Agrigold	A6573VT3Pro	0.50	17.9	3,797	23,487	0.85	0.58	8.2	18.3	33.2	2.3
Augusta	A008VT3	0.50	17.6	3,712	22,681	0.82	0.55	7.2	19.3	34.8	2.5
Augusta	A5462 GT3000	0.50	<b>21.5</b>	3,712	27,813	0.84	0.57	7.4	18.4	33.5	2.3
Beck's	7988BR	0.33	17.5	3,793	22,910	0.85	0.57	7.6	18.6	33.6	3.3
Beck's	XL6903HR	0.25	18.6	3,692	23,728	0.83	0.56	7.8	19.4	34.6	3.1
Caverndale Farms	CF 1026 GT	0.08	<b>21.0</b>	3,188	23,586	0.73	0.46	7.8	24.5	43.0	4.5
Caverndale Farms	CF 848 3000 GT	0.50	<b>20.2</b>	3,626	25,598	0.81	0.54	7.4	20.8	37.4	2.7
Dekalb	DKC 63-87 VT2PRO	0.33	19.2	3,807	25,117	0.87	0.59	7.8	17.0	30.9	2.3
Dekalb	DKC 65-19 VT2PRO	0.33	17.3	3,564	21,700	0.82	0.55	8.2	20.7	37.2	2.5
Dyna-Gro	D56VP24	0.50	19.5	3,797	25,961	0.88	0.61	7.4	17.6	31.8	2.1
Dyna-Gro	D57VP75	0.25	<b>22.4</b>	3,622	<b>28,077</b>	0.81	0.54	7.5	20.9	37.7	3.3
Mycogen	F2F626	0.25	16.0	3,731	20,913	0.81	0.55	6.9	23.0	39.8	3.6
Mycogen	TMF2H918	0.00	<b>22.1</b>	3,300	25,631	0.74	0.49	7.3	26.8	49.1	3.3
Pioneer	P1376XR	0.25	16.2	3,710	20,862	0.82	0.56	8.3	21.7	36.8	2.6
Pioneer	P2088AMI	0.25	18.5	3,804	24,524	0.87	0.59	8.1	16.6	31.0	2.3
Seed Consultants	SCS 11HQ31	0.42	18.1	<b>3,817</b>	24,288	0.85	0.58	7.8	17.9	32.2	2.3
Seed Consultants	SCS 11HQ60	0.33	16.8	3,750	21,879	0.83	0.56	8.0	21.1	35.7	2.7
Southern States	SS 65-32 GENVT3Pro	0.25	18.1	3,653	23,054	0.82	0.55	7.3	20.6	36.7	3.5
Southern States	SS 824 VT3Pro	0.42	19.1	3,575	23,735	0.82	0.55	7.2	20.7	37.4	3.7
Syngenta	N72F	0.50	16.6	3,665	20,180	0.80	0.54	6.9	22.2	39.7	3.4
Syngenta	N82V	0.50	19.4	3,754	25,566	0.84	0.57	7.0	19.3	35.4	3.1
WVyffels	W8681VT3	0.42	17.8	3,803	23,845	0.86	0.59	7.7	17.3	31.3	1.9
	LSD (0.10)	0.16	2.4								
	CV	33.50	9.2								
	Grand Mean	0.36	18.6	3,677	23,766	0.83	0.56	7.6	20.1	36.1	2.9

### Corn Hybrid Performance for Silage, Mason County, Kentucky, 2012.

Note: Single location data is not as reliable as the combined location average.

2012 Mason County, KY		Milk	Tons/A	Milk Yield		NEL	NEG	Quality, %			
Company	Brand /Hybrid	Line	35% DM	lbs/ton	lbs/acre	Mcal/lb	Mcal/lb	CP	ADF	NDF	Lignin
Agrigold	A6517VT3Pro	0.58	22.4	3,446	27,061	0.89	0.61	6.7	16.0	29.0	2.4
Agrigold	A6573VT3Pro	0.64	23.8	3,497	29,144	0.87	0.6	7.5	18.1	31.9	2.2
Augusta	A008VT3	0.54	23.3	3,524	28,694	0.87	0.6	7.2	17.3	31.1	2.5
Augusta	A5462 GT3000	0.50	23.5	3,518	28,905	0.87	0.6	6.9	18.0	32.4	2.7
Becks	7988BR	0.50	23.8	3,447	28,735	0.85	0.58	7.6	17.5	32.1	2.8
Becks	XL6903HR	0.71	25.6	3,308	29,694	0.85	0.58	7.2	17.9	33.1	2.6
Caverndale Farms	CF 1026 GT	0.25	23.9	3,152	26,378	0.76	0.49	7.0	22.8	39.9	3.1
Caverndale Farms	CF 848 3000 GT	0.67	23.6	3,609	29,868	0.86	0.59	7.2	17.8	32.1	2.6
Dekalb	DKC 63-87 VT2PRO	0.58	24.3	3,384	28,787	0.88	0.61	7.3	16.8	31.1	2.4
Dekalb	DKC 65-19 VT2PRO	0.46	24.6	3,504	30,182	0.92	0.64	7.0	14.9	26.9	2.0
Dyna-Gro	D56VP24	0.63	25.0	3,589	31,414	0.86	0.59	6.5	18.1	32.5	2.5
Dyna-Gro	D57VP75	0.42	27.0	3,565	33,747	0.87	0.6	7.3	17.8	31.9	2.5
Mycogen	F2F626	0.33	16.2	3,063	17,400	0.83	0.56	7.0	20.6	36.6	2.4
Mycogen	TMF2H918	0.58	29.9	3,526	36,959	0.87	0.6	6.7	17.6	32.1	2.6
Pioneer	P1376XR	0.58	23.6	3,436	28,424	0.87	0.6	7.4	17.8	32.8	2.4
Pioneer	P2088AMI	0.50	26.3	3,689	33,937	0.88	0.6	7.3	17.1	31.3	2.3
Seed Consultants	SCS 11HQ31	0.50	22.6	3,519	27,779	0.84	0.57	7.5	19.4	34.1	2.6
Seed Consultants	SCS 11HQ60	0.58	23.5	3,486	28,698	0.86	0.59	7.4	18.3	32.7	2.7
Southern States	SS 65-32 GENVT3Pro	0.67	21.4	3,366	25,258	0.82	0.55	7.2	19.4	34.7	2.9
Southern States	SS 824 VT3Pro	0.54	23.0	3,287	26,507	0.83	0.55	7.3	18.8	34.3	3.0
Syngenta	N72F	0.64	26.0	3,353	30,461	0.85	0.58	7.0	17.9	32.8	2.6
Syngenta	N82V	0.58	26.5	3,382	31,334	0.85	0.57	6.9	18.2	32.8	2.8
Wyffels	W8681VT3	0.58	22.5	3,425	26,947	0.86	0.59	7.2	17.6	31.5	2.0
	LSD (0.10)	0.25	2.75								
	CV	33.00	8.4								
	Grand Mean	0.55	24.0	3,438	28,970	0.86	0.58	7.1	18.1	32.6	2.5

## Procedures for the 2012 Kentucky Silage Corn Hybrid Performance Test

### Objective:

The objective of the Silage Corn Hybrid Performance Test is to provide unbiased forage yield and quality data for corn hybrids commonly grown for silage in Kentucky.

### General Procedures:

Hybrids were evaluated for silage performance on cooperating farms in Boyle County, Casey County, and Mason County. Representatives from seed companies submitted hybrids of their choosing. Total study size was kept to about 20 hybrids. University of Kentucky personnel or third-party contractors planted the hybrid seeds. Farmers applied the soil fertility and pest management. University of Kentucky personnel harvested, weighed, chopped and packaged corn for quality analysis. University personnel conducted the statistical analyses and final reporting of hybrid performance.

Every effort was made to conduct the tests in an unbiased manner according to accepted agronomic practices. In some cases, fertilizer rates are above recommendations. Hybrids were arranged in a

randomized complete block design with three replications at each farm. Hybrid seed was planted with standard planters at a target seeding rate near 30,000 seeds per acre. Fields were monitored for pests.

When most hybrids were near 35% dry matter (65% moisture), two 10-ft sections of each hybrid were harvested by hand from each plot. The entire harvested corn sample was weighed. All whole plants from each hybrid were chopped through a silage chopper and a subsample was collected. Forage quality analyses and dry matter determination were from composite samples of each hybrid at each location and were analyzed by Dairy One Forage Lab, who also calculated milk yield.

Hybrid performance reported here includes silage yield adjusted to 35% dry matter, milk yield per ton and per acre, net energy for gain and for lactation, crude protein, acid detergent fiber, neutral detergent fiber, and lignin.

Yield was separated using the Least Significant Difference (or LSD). The LSD is a method of

separating hybrid performance from field variability. Hybrids with yields within one (1) LSD of each other have a very good chance of performing similar to each other next year.

### Explanation of Terms:

- Milk Line – visible line on the kernel resulting from starch deposition. As starch fills the kernel, the milk line moves from the bottom to top of the kernel. Three-quarter (0.75) milk line is ideal for silage harvest.
- Milk Yield – calculated with Milk 2000 (Univ. of Wisconsin)
- NEL – net energy for lactation: Main energy value for dairy ration balancing
- NEG – net energy for gain.
- CP – crude protein
- ADF – acid detergent fiber
- NDF – neutral detergent fiber: higher NDF generally indicates lower forage intake and lower animal performance.
- Lignin – indigestible fiber.