

Kentucky Silage Hybrid Performance Report, 2012

Combined locations (Boyle, Casey and Mason Counties)

| 2012 Combined Locations | | Milk Line | Tons/A | Milk Yield ³ | | NEL ⁴ | NEG | Quality, % ⁵ | | | |
|-------------------------|--------------------|--------------|---------------------|-------------------------|---------------|------------------|------|-------------------------|------|------|--------|
| Company | Brand/Hybrid | ¹ | 35% DM ² | 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 | 23.3 | 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 | 23.9 | 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 | 22.7 | 3,519 | 27,849 | 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 | 22.1 | 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 |

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

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

³ 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.

⁴ Net energy for lactation (NEL) and gain (NEG).

⁵ 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 | 21.5 | 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 | 21.0 | 3,188 | 23,586 | 0.73 | 0.46 | 7.8 | 24.5 | 43.0 | 4.5 |
| Caverndale Farms | CF 848 3000 GT | 0.50 | 20.2 | 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 | 22.4 | 3,622 | 28,077 | 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 | 22.1 | 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 | 3,817 | 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.