# FIELD EXPERIMENT HISTORY

**Title:** **Syngenta Enogen - Silage**

**Experiment:** 01ST **Trial ID:** 6246 **Year:** 2017

**Personnel:** Joe Lauer, Kent Kohn, Thierno Diallo

**Location:** Arlington, WI **County:** Columbia

**Supported By:** Syngenta

## Site Information

**Field:** ARS408 **Previous Crop:** Alfalfa **Soil Type:** Plano Silt Loam

**Soil Test:** **Date:** 5 /8 /17 **pH:** 6.7 **OM (%)** 3.5 **P (ppm)** 53 **K (ppm)** 168

## Plot Management

**Tillage Operations:** Disk Chisel Field Cultivator

| | | Analysis: | Rate lbs/A: | Date: |
|---|---|---|---|---|
| **Fertilizer:** | **Preplant :** | 46-0-0 | 250 | N/A |
| | **Starter :** | 9-11-30-6S-1Zn | 200 lbs/A | 5 /8 /17 |
| | **Post plant :** | N/A | N/A | N/A |
| | **Manure:** | | | |

**Herbicide:** Hornet 4.0 oz/A
Harness 28 oz/A

**Insecticide:** Force 3G 4.4 lbs/A

**Hybrid:** Factor

**Irrigation:** None

**Planting Date:** 5/8/17 **Planting Depth:** 1.5" **Row Width:** 30"

**Target Plant Density:** **plants per acre** **Planting Method:** Almaco Precision Planter

**Harvest Date:** 9/15/17 **Harvest Method:** New Holland 707

## Experimental Design

**Design:** RCB - split-plot desig **Replications:** 4

**Plot Size Seeded:** 10 x 25 **Experiment Size:** 3.16 A

**Harvest Plot Size:** 2.5' x 23' **Harvest Plant Density:** 32481 **plants per acre**

**Factors/Treatments:**

| Hybrid Type (Isoline): | Hybrid Type (Enogen): |
|---|---|
| SJ5082XP | SJ5082TT |
| SL6164XP | SL6164TW |
| X43297WP | X43297TT |
| X5132ADH | X5132ATT |
| X60906DH | X60906TT |
| X66399DH | X66399TT |
| SYN 2 | |
| SYN 3 | |
| SYN 4 | |
| SYN 5 | |

**Results: Table 1701-06 & 1701-07.**

# Table: 1701-06. Syngenta - Enogen Corn Silage Yield and Quality

## Arlington, WI - 2017.

| Enogen | Dry Matter | | Harv | Kernel | KMR | SMR | VMR | Crude | *In Vitro* | | | | | Milk per | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hybrid | yield | Moisture | pop | milk | 0-5 | 0-5 | 0-10 | protein | ADF | NDF | Digest | NDFD | Starch | Ton | Acre |
| | tons/A | % | plants/A | % | | | | % | % | % | % | % | % | lbs/T | lbs/A |
| SJ5082TT | 11.7 | 61.7 | 32575 | - | - | - | - | 7.1 | 18.7 | 35.5 | 86.2 | 61.2 | 32.6 | 3245 | 38031 |
| SL6164TW | 11.1 | 65.7 | 32197 | - | - | - | - | 7.0 | 21.3 | 39.2 | 83.3 | 57.3 | 30.5 | 3212 | 35707 |
| X43297TT | 10.8 | 62.7 | 31060 | - | - | - | - | 6.9 | 20.4 | 37.8 | 83.3 | 56.1 | 27.9 | 2870 | 31281 |
| X5132ATT | 11.9 | 61.3 | 33143 | - | - | - | - | 6.7 | 18.8 | 35.4 | 85.2 | 58.2 | 32.0 | 3092 | 36853 |
| X60906TT | 12.2 | 64.8 | 32765 | - | - | - | - | 6.8 | 19.9 | 37.1 | 84.8 | 59.3 | 30.0 | 3081 | 37825 |
| X66399TT | 10.3 | 67.5 | 33143 | - | - | - | - | 6.6 | 23.5 | 41.9 | 81.1 | 55.2 | 26.3 | 2954 | 30615 |
| Mean | 11.3 | 63.9 | 32481 | - | - | - | - | 6.8 | 20.4 | 37.8 | 84.0 | 57.9 | 29.9 | 3076 | 35052 |
| **Probability(%)** | | | | | | | | | | | | | | | |
| Hybrid | 0.0 | 0.0 | 0.0 | - | - | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **LSD (0.10)** | | | | | | | | | | | | | | | |
| Hybrid | 1.1 | 3.2 | 2045 | - | - | - | - | 0.3 | 2.9 | 3.9 | 2.4 | 2.4 | 5.1 | 245 | 5774 |

# Table: 1701-07. Syngenta - Enogen Corn Silage Yield and Quality

## Arlington, WI - 2017.

| Isoline | Dry Matter | | Harv | Kernel | KMR | SMR | VMR | Crude | *In Vitro* | | | | | Milk per | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hybrid | yield | Moisture | pop | milk | 0-5 | 0-5 | 0-10 | protein | ADF | NDF | Digest | NDFD | Starch | Ton | Acre |
| | tons/A | % | plants/A | % | | | | % | % | % | % | % | % | lbs/T | lbs/A |
| SJ5082XP | 11.9 | 62.1 | 34280 | - | - | - | - | 7.3 | 19.1 | 36.3 | 86.2 | 62.0 | 32.6 | 3336 | 39780 |
| SL6164XP | 12.1 | 64.8 | 33333 | - | - | - | - | 7.2 | 19.9 | 37.1 | 85.2 | 60.1 | 31.3 | 3284 | 39771 |
| X43297WP | 10.5 | 61.7 | 31818 | - | - | - | - | 7.2 | 18.1 | 35.3 | 84.8 | 56.9 | 32.2 | 3146 | 32927 |
| X5132ADH | 11.0 | 66.9 | 33143 | - | - | - | - | 6.8 | 21.1 | 38.5 | 83.4 | 56.9 | 28.3 | 3043 | 33434 |
| X60906DH | 11.3 | 66.6 | 31250 | - | - | - | - | 7.1 | 20.6 | 38.3 | 84.0 | 58.2 | 27.8 | 3029 | 34266 |
| X66399DH | 10.7 | 68.1 | 33143 | - | - | - | - | 7.2 | 22.1 | 40.5 | 82.7 | 57.1 | 26.7 | 3043 | 32630 |
| SYN 2 | 11.1 | 64.1 | 31250 | - | - | - | - | 7.4 | 18.0 | 34.8 | 88.1 | 65.8 | 33.2 | 3387 | 37547 |
| SYN 3 | 9.7 | 68.7 | 32007 | - | - | - | - | 7.2 | 25.7 | 44.8 | 84.1 | 64.5 | 24.6 | 3269 | 31848 |
| SYN 4 | 10.5 | 70.2 | 33333 | - | - | - | - | 7.1 | 21.3 | 40.2 | 86.4 | 66.3 | 26.2 | 3193 | 33447 |
| SYN 5 | 10.2 | 66.7 | 32386 | - | - | - | - | 7.8 | 19.9 | 38.1 | 86.0 | 63.4 | 29.6 | 3319 | 33785 |
| Mean | 10.9 | 66.0 | 32594 | - | - | - | - | 7.2 | 20.6 | 38.4 | 85.1 | 61.1 | 29.2 | 3205 | 34943 |
| **Probability(%)** | | | | | | | | | | | | | | | |
| Hybrid | 0.0 | 0.0 | 0.0 | - | - | - | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **LSD (0.10)** | | | | | | | | | | | | | | | |
| Hybrid | 0.7 | 2.3 | 1794 | - | - | - | - | 0.3 | 2.0 | 2.9 | 1.5 | 1.6 | 3.3 | 131 | 3195 |

# FIELD EXPERIMENT HISTORY

**Title:** **Syngenta Enogen - Silage**

**Experiment:** 01ST **Trial ID:** 6247 **Year:** 2017

**Personnel:** Joe Lauer, Kent Kohn, Thierno Diallo

**Location:** Marshfield, WI **County:** Wood

**Supported By:** Syngenta

## Site Information

**Field:** **Previous Crop:** Soybean **Soil Type:** Withee

**Soil Test:** **Date:** 5 /1 /17 **pH:** 5.9 **OM (%)** 3.2 **P (ppm)** 32 **K (ppm)** 122

## Plot Management

**Tillage Operations:** Chisel Plow Field Cultivator Cultimulcher

| | | Analysis: | Rate lbs/A: | Date: |
|---|---|---|---|---|
| **Fertilizer:** | **Preplant :** | | | |
| | **Starter :** | 9-11-30-6S-1Zn | 200 lbs/A | 5 /12/17 |
| | **Post plant :** | 46-0-0 | 100 lbs | N/A |
| | **Manure:** | | | |

**Herbicide:** Roundup 32oz/A
Parrellel 1.7 pt/A
Accent Q 1.0 oz/A

**Insecticide:** Force 3G 4.4 lbs/A

**Hybrid:** Factor

**Irrigation:** None

**Planting Date:** 5/12/17 **Planting Depth:** 1.5" **Row Width:** 30"

**Target Plant Density:** **plants per acre** **Planting Method:** Almaco Precision Planter

**Harvest Date:** 9/27/17 **Harvest Method:** New Holland 707

## Experimental Design

**Design:** RCB - split-plot desig **Replications:** 4

**Plot Size Seeded:** 10 x 25 **Experiment Size:** 1.85 A

**Harvest Plot Size:** 2.5' x 23' **Harvest Plant Density:** 28240 **plants per acre**

**Factors/Treatments:**

| Hybrid Type (Isoline): | Hybrid Type (Enogen): |
|---|---|
| Mycogen F2F343 | SG3482TT |
| Dekalb DKC46-36RIB | SJ5082TT |
| Pioneer P0157AMX | X30576TT |
| | X43297TT |
| | X5132ATT |
| | X66399TT |

**Results: Table 1701-08 & 1701-09.**

# Table: 1701-08. Syngenta - Enogen Corn Silage Yield and Quality

## Marshfield, WI - 2017.

| Enogen | Dry Matter | | Harv | Kernel | KMR | SMR | VMR | Crude | *In Vitro* | | | | | Milk per | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hybrid | yield | Moisture | pop | milk | 0-5 | 0-5 | 0-10 | protein | ADF | NDF | Digest | NDFD | Starch | Ton | Acre |
| | tons/A | % | plants/A | % | | | | % | % | % | % | % | % | lbs/T | lbs/A |
| SG3482TT | 7.5 | 64.3 | 29293 | 58.3 | 2.9 | 2.1 | 5.1 | 7.1 | 19.6 | 36.9 | 84.6 | 58.5 | 32.6 | 3360 | 25023 |
| SJ5082TT | 9.0 | 67.1 | 28030 | 73.3 | 3.7 | 2.9 | 6.6 | 6.9 | 20.7 | 38.7 | 86.0 | 63.9 | 28.6 | 3252 | 29294 |
| X30576TT | 8.8 | 61.5 | 27525 | 36.7 | 1.8 | 1.7 | 3.5 | 7.0 | 18.8 | 35.9 | 85.6 | 59.9 | 34.2 | 3393 | 29779 |
| X43297TT | 7.2 | 65.7 | 26767 | 55.0 | 2.8 | 2.5 | 5.2 | 7.2 | 19.4 | 37.5 | 85.9 | 62.4 | 29.2 | 3226 | 23537 |
| X5132ATT | 7.9 | 67.4 | 28282 | 66.7 | 3.3 | 3.1 | 6.4 | 6.6 | 21.9 | 39.9 | 84.6 | 61.4 | 26.9 | 3102 | 24678 |
| X66399TT | 8.1 | 67.8 | 29545 | 68.3 | 3.4 | 3.2 | 6.6 | 6.8 | 20.8 | 39.2 | 85.7 | 63.4 | 27.8 | 3197 | 26074 |
| Mean | 8.1 | 65.6 | 28240 | 59.7 | 3.0 | 2.6 | 5.6 | 6.9 | 20.2 | 38.0 | 85.4 | 61.6 | 29.9 | 3255 | 26398 |
| **Probability(%)** | | | | | | | | | | | | | | | |
| Hybrid | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **LSD (0.10)** | | | | | | | | | | | | | | | |
| Hybrid | 1.1 | 1.8 | 2992 | 21.9 | 1.1 | 0.6 | 1.0 | 0.6 | 1.8 | 2.7 | 2.2 | 3.8 | 3.7 | 173 | 4014 |

# Table: 1701-09. Syngenta - Enogen Corn Silage Yield and Quality

## Marshfield, WI - 2017.

| Isoline | Dry Matter | | Harv | Kernel | KMR | SMR | VMR | Crude | *In Vitro* | | | | | Milk per | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hybrid | yield | Moisture | pop | milk | 0-5 | 0-5 | 0-10 | protein | ADF | NDF | Digest | NDFD | Starch | Ton | Acre |
| | tons/A | % | plants/A | % | | | | % | % | % | % | % | % | lbs/T | lbs/A |
| SG3482XP | 7.0 | 66.6 | 22727 | 61.7 | 3.1 | 3.1 | 6.2 | 8.1 | 19.4 | 37.0 | 84.8 | 58.9 | 32.8 | 3470 | 24089 |
| SJ5082XP | 7.9 | 67.7 | 29798 | 83.3 | 4.2 | 2.8 | 7.0 | 7.7 | 20.2 | 38.4 | 86.7 | 65.3 | 29.0 | 3351 | 26525 |
| X30576XP | 8.7 | 58.6 | 31313 | 31.7 | 1.6 | 1.5 | 3.1 | 6.9 | 18.4 | 35.4 | 85.8 | 59.9 | 35.4 | 3332 | 28807 |
| X43297WP | 7.5 | 66.4 | 30050 | 61.7 | 3.1 | 2.7 | 5.8 | 7.7 | 19.4 | 37.5 | 84.3 | 58.2 | 32.0 | 3385 | 25396 |
| X5132ADH | 8.4 | 69.0 | 31313 | 60.0 | 3.0 | 2.6 | 5.6 | 6.8 | 22.7 | 40.9 | 82.6 | 57.6 | 26.3 | 3021 | 25343 |
| X66399DH | 8.7 | 70.6 | 31313 | 81.7 | 4.1 | 3.1 | 7.2 | 7.6 | 22.8 | 42.6 | 83.1 | 60.3 | 25.1 | 3129 | 27148 |
| SYN 1 | 7.8 | 63.2 | 30050 | 50.0 | 2.5 | 2.1 | 4.6 | 7.7 | 18.9 | 37.5 | 88.6 | 69.4 | 31.9 | 3578 | 27775 |
| SYN 6 | 7.9 | 65.4 | 27777 | 55.0 | 2.8 | 2.7 | 5.5 | 7.5 | 19.7 | 37.6 | 85.1 | 60.6 | 31.0 | 3348 | 26362 |
| SYN 7 | 8.4 | 66.2 | 29293 | 61.7 | 3.1 | 2.4 | 5.5 | 7.0 | 20.4 | 37.8 | 84.9 | 60.0 | 31.1 | 3323 | 27939 |
| Mean | 8.0 | 66.0 | 29293 | 60.7 | 3.0 | 2.5 | 5.6 | 7.4 | 20.2 | 38.3 | 85.1 | 61.1 | 30.5 | 3326 | 26598 |
| **Probability(%)** | | | | | | | | | | | | | | | |
| Hybrid | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **LSD (0.10)** | | | | | | | | | | | | | | | |
| Hybrid | 1.1 | 2.8 | 3693 | 14.0 | 0.7 | 0.7 | 0.9 | 0.5 | 1.8 | 2.7 | 2.1 | 3.3 | 3.2 | 175 | 3811 |