

University of Florida/Institute of Food and Agricultural Sciences

Results from the 2020 Spring Corn Silage hybrid test

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Table 1. Productivity

| Company | Hybrid | Relative maturity | Total Production | Estimated silage production (35% DM) | Milk production per ton | Milk production per acre | Disease score | NE _i |
|------------------|----------------|-------------------|------------------|--------------------------------------|---------------------------|--------------------------|---------------|-------------------|
| | | | <i>lb DM/A</i> | <i>Ton silage/A</i> | <i>lb milk/ton silage</i> | <i>lb milk/A</i> | | <i>Mcal/lb DM</i> |
| AgraTech | 1024VIP | | 17419 | 24.9 | 3643 * | 31785 * | 1.1 | 0.74 * |
| AgraTech | 85VT2P | | 18989 | 27.1 | 3194 | 30369 * | 1.0 | 0.68 |
| AgraTech | 88VT2P | | 16198 | 23.1 | 3234 | 26192 | 2.1 * | 0.68 |
| AgraTech | 908VIP | | 17239 | 24.6 | 3548 * | 30532 * | 0.9 | 0.73 * |
| Augusta seed | A1367-3220GT | 117 | 17264 | 24.6 | 3269 | 21557 | 1.5 | 0.68 |
| Augusta seed | A4465-3110GT | 115 | 16574 | 23.7 | 3546 * | 29399 * | 1.2 | 0.73 |
| Augusta seed | A4467-3220GT | 115 | 16930 | 24.2 | 3332 | 28294 * | 1.4 | 0.69 |
| Augusta seed | A7768-3110GT | 117 | 15459 | 16.9 | 3247 | 18606 | 1.0 | 0.68 |
| Augusta seed | A8868 VT2Pro | 118 | 18165 | 25.9 | 3263 | 29428 * | 1.3 | 0.69 |
| Croplan Genetics | S5700 | 118 | 18793 | 26.8 | 3356 | 31541 * | 1.3 | 0.70 |
| Croplan Genetics | S5900 vt2p | 117 | 16626 | 23.8 | 3492 | 21796 | 0.6 | 0.72 |
| Dekalb | DKC64-44RIB SS | 119 | 14612 | 20.9 | 3644 * | 26670 | 1.1 | 0.74 * |
| Dekalb | DKC68-69 VT2P | 114 | 17014 | 24.3 | 3289 | 28016 | 1.3 | 0.69 |
| Dekalb | DKC69-16 SS | 118 | 16058 | 22.9 | 3381 | 27122 | 0.5 | 0.70 |
| Dekalb | DKC69-99 | | | | | | | |
| Dekalb | TRECEPTA | 119 | 18797 | 26.8 | 3263 | 30676 * | 0.9 | 0.69 |
| Dekalb | DKC70-64 SS | 119 | 18319 | 26.2 | 3076 | 28198 * | 0.8 | 0.66 |
| Dyna-Gro | D55QC73 | 120 | 16086 | 23.0 | 3656 * | 29423 * | 1.6 | 0.74 * |
| Dyna-Gro | D55VC80 | 115 | 17639 | 25.2 | 3675 * | 32427 * | 1.5 | 0.74 * |
| Dyna-Gro | D57VC17 | 115 | 17840 | 25.5 | 3279 | 29206 * | 2.1 * | 0.69 |
| Dyna-Gro | D58QC72 | 117 | 19271 * | 27.6 * | 3148 | 22810 | 0.9 | 0.67 |
| Dyna-Gro | D58SS65 | 118 | 18962 | 27.1 | 3328 | 31557 * | 1.0 | 0.70 |
| Local Seed | LC1688 SSX | 118 | 17738 | 25.3 | 3405 | 30169 * | 1.1 | 0.71 |

| Company | Hybrid | Relative maturity | Total Production | Estimated silage production (35% DM) | Milk production per ton | Milk production per acre | Disease score | NE _l |
|-------------------|---------------------------------|-------------------|------------------|--------------------------------------|-------------------------|--------------------------|---------------|-----------------|
| Local Seed | LC1898 TC | 116 | 18076 | 25.8 | 3263 | 29470 * | 1.3 | 0.69 |
| Local Seed | LC1506 VT2P | 118 | 17583 | 25.1 | 3723 * | 32766 * | 1.4 | 0.76 * |
| Local Seed | LC1707 VT2P | 115 | 16980 | 24.3 | 3347 | 28284 * | 1.3 | 0.70 |
| Local Seed | LC1806 VT2P | 117 | 17700 | 25.3 | 3415 | 30295 * | 1.3 | 0.71 |
| MorCorn | MC 4255 | 117 | 16638 | 23.8 | 3648 * | 30401 * | 1.2 | 0.74 * |
| MorCorn | MC 4319 | 112 | 16574 | 23.7 | 3545 * | 29390 * | 1.4 | 0.73 * |
| MorCorn | MC 4670 | 113 | 17578 | 25.1 | 3259 | 28629 * | 0.8 | 0.68 |
| MorCorn | MC 4725 | 116 | 19108 | 27.3 * | 3243 | 30994 * | 1.6 | 0.68 |
| Phoenix | 6507A3 | 117 | 17491 | 25.0 | 3711 * | 32472 * | 2.1 * | 0.75 * |
| Phoenix | 6542A4 | 115 | 20107 * | 28.7 * | 3169 | 31906 * | 1.3 | 0.67 |
| Phoenix | 7402A4 | 116 | 20368 * | 29.1 * | 3207 | 32679 * | 1.1 | 0.68 |
| Pioneer | P1847 VYHR | 118 | 18520 | 26.5 | 3317 | 22983 | 1.1 | 0.69 |
| Pioneer | P1903 YHR | 118 | 17326 | 24.7 | 3441 | 29777 * | 1.4 | 0.71 |
| Seedway | SW 8100GENSS (RIB) - Smartstack | 118 | 16474 | 23.5 | 3292 | 27023 | 1.9 * | 0.69 |
| Seedway | SW7560GENVT2P | 115 | 15826 | 22.6 | 3485 | 27589 | 1.6 | 0.72 |
| Seedway | SW8109VIP3111 | 117 | 18498 | 26.4 | 3194 | 29523 * | 1.3 | 0.68 |
| Sun Prairie Seeds | SP2928 3000GT | 117 | 15891 | 22.7 | 3340 | 19657 | 0.8 | 0.69 |
| Syngenta | NK1573-5222 | 116 | 16659 | 23.8 | 3678 * | 30674 * | 1.3 | 0.75 * |
| Syngenta | NK1677-3110 | 115 | 18211 | 26.0 | 3285 | 29979 * | 1.8 | 0.69 |
| Syngenta | NK1748-3110 | 116 | 18015 | 25.7 | 3193 | 28751 * | 1.5 | 0.68 |
| Syngenta | NK1808 3111 | 117 | 21780 * | 31.1 * | 3414 | 36781 * | . | 0.71 |
| UF | UFR 197 | 125 | 16584 | 23.7 | 3034 | 18634 | 0.6 | 0.65 |
| UF | UFR 299 | 125 | 14333 | 20.5 | 3196 | 22885 | 0.9 | 0.67 |
| Mean | | | 17403 | 24.8 | 3379 | 28140 | 1.3 | 0.70 |
| SE | | | 1059 | 1.7 | 91 | 3674 | 0.3 | 0.01 |

* indicates hybrids that performed similarly to the best hybrid, according to F-test at $p < 0.05$. All mean reported are least square means.

Parameters:

Disease score: 0 = no disease 3 = heavy disease (>75% incidence)

Milk per ton of silage' and 'Milk per acre of silage yield' were calculated using the Milk2006 formulas from the University of Wisconsin

DM, dry matter (%); NE_L, net energy for lactation (Mcal/lb DM)

Table 2. Nutritive value

| Hybrid | TDN | | CP | | IVTDMD30 | | Starch | | WSC | | ADF | | aNDF | | dNDF30 | | NDFD30 | | |
|-------------------|------------------|---|------|---|----------|---|--------|---|-----|------|-----|------|------|------|--------|------|--------|--|-------|
| | ----- % DM ----- | | | | | | | | | | | | | | | | | | % NDF |
| 1024VIP | 77.4 | * | 8.3 | | 76.6 | * | 28.2 | * | 6.3 | 24.0 | | 43.6 | | 23.6 | | 54.2 | * | | |
| 85VT2P | 71.5 | | 7.6 | | 73.8 | | 25.3 | | 6.0 | 26.9 | | 48.3 | | 24.2 | | 50.2 | | | |
| 88VT2P | 72.4 | | 7.4 | | 72.2 | | 24.6 | | 5.4 | 28.4 | * | 50.4 | * | 25.3 | | 50.1 | | | |
| 908VIP | 76.2 | * | 8.3 | | 74.5 | | 24.3 | | 6.9 | 26.0 | | 46.7 | | 24.0 | | 51.5 | * | | |
| A1367-3220GT | 72.9 | | 7.7 | | 75.9 | * | 27.6 | * | 5.4 | 25.2 | | 45.9 | | 24.1 | | 52.6 | * | | |
| A4465-3110GT | 76.0 | * | 9.1 | | 76.2 | * | 25.9 | | 7.3 | 23.5 | | 44.5 | | 23.0 | | 51.7 | | | |
| A4467-3220GT | 73.5 | | 8.4 | | 76.9 | * | 26.2 | | 6.8 | 24.2 | | 45.6 | | 24.3 | | 53.8 | * | | |
| A7768-3110GT | 72.5 | | 8.3 | | 74.4 | | 22.3 | | 6.3 | 27.6 | * | 48.6 | * | 24.7 | | 51.0 | | | |
| A8868 VT2Pro | 72.0 | | 7.7 | | 75.9 | * | 27.5 | * | 5.7 | 24.7 | | 45.4 | | 23.2 | | 51.4 | | | |
| S5700 | 73.7 | | 8.0 | | 76.2 | * | 31.0 | * | 5.1 | 23.1 | | 42.4 | | 20.7 | | 48.9 | | | |
| S5900 vt2p | 75.2 | * | 10.2 | * | 74.0 | | 21.2 | | 7.9 | 24.9 | * | 45.7 | | 22.0 | | 48.3 | | | |
| DKC64-44RIB SS | 77.4 | * | 10.5 | * | 76.3 | * | 25.4 | | 6.1 | 23.0 | | 43.0 | | 21.5 | | 50.1 | | | |
| DKC68-69 VT2P | 72.8 | | 7.4 | | 74.6 | | 28.6 | * | 4.2 | 25.1 | | 45.7 | | 22.5 | | 49.4 | | | |
| DKC69-16 SS | 74.2 | | 8.6 | | 74.9 | | 26.7 | | 5.4 | 24.5 | | 45.2 | | 22.1 | | 48.9 | | | |
| DKC69-99 TRECEPTA | 72.2 | | 6.8 | | 73.8 | | 28.7 | * | 4.5 | 25.3 | | 46.2 | | 22.2 | | 48.0 | | | |
| DKC70-64 SS | 70.0 | | 8.7 | | 71.1 | | 21.4 | | 7.4 | 26.9 | | 48.7 | * | 22.4 | | 46.1 | | | |
| D55QC73 | 77.8 | * | 10.3 | * | 77.3 | * | 25.5 | | 6.8 | 22.9 | | 42.3 | | 21.6 | | 51.2 | | | |
| D55VC80 | 78.0 | * | 9.8 | * | 77.7 | * | 28.3 | * | 6.2 | 21.4 | | 41.3 | | 20.2 | | 48.9 | | | |
| D57VC17 | 72.5 | | 7.8 | | 75.5 | | 29.4 | * | 5.0 | 23.7 | | 44.2 | | 21.3 | | 48.3 | | | |
| D58QC72 | 71.4 | | 8.4 | | 74.2 | | 22.5 | | 6.8 | 26.9 | | 47.7 | | 23.6 | | 49.5 | | | |
| D58SS65 | 72.8 | | 8.0 | | 76.4 | * | 30.6 | * | 5.3 | 22.5 | | 42.2 | | 20.4 | | 48.4 | | | |
| LC1688 SSX | 74.3 | | 8.0 | | 77.6 | * | 32.3 | * | 4.6 | 22.0 | | 41.5 | | 20.9 | | 50.3 | | | |
| LC1898 TC | 72.3 | | 7.7 | | 75.2 | | 27.4 | * | 5.6 | 24.4 | | 45.4 | | 22.3 | | 49.3 | | | |
| LC1506 VT2P | 77.7 | * | 9.6 | * | 79.3 | * | 31.2 | * | 5.5 | 20.2 | | 38.8 | | 20.7 | | 53.3 | * | | |
| LC1707 VT2P | 73.8 | | 7.8 | | 75.5 | | 28.2 | * | 5.0 | 24.2 | | 45.3 | | 22.6 | | 50.1 | | | |
| LC1806 VT2P | 74.3 | | 7.9 | | 77.0 | * | 31.6 | * | 5.7 | 21.7 | | 42.7 | | 21.9 | | 51.3 | | | |
| MC 4255 | 77.2 | * | 8.2 | | 78.8 | * | 31.7 | * | 5.8 | 20.4 | | 40.4 | | 21.0 | | 52.1 | * | | |
| MC 4319 | 75.6 | * | 8.2 | | 74.3 | | 26.0 | | 6.7 | 24.7 | | 45.0 | | 21.8 | | 48.4 | | | |
| MC 4670 | 72.5 | | 8.0 | | 75.2 | | 27.0 | | 5.5 | 25.0 | | 46.1 | | 23.3 | | 50.5 | | | |
| MC 4725 | 72.0 | | 7.7 | | 75.2 | | 26.8 | | 5.3 | 24.9 | | 45.9 | | 22.4 | | 48.7 | | | |
| 6507A3 | 77.9 | * | 7.8 | | 78.0 | * | 33.6 | * | 5.1 | 21.2 | | 40.8 | | 21.4 | | 52.6 | * | | |

| Hybrid | TDN | CP | IVTDMD30 | Starch | WSC | ADF | aNDF | dNDF30 | NDFD30 |
|------------------------------------|------------|------------|-------------|-------------|------------|-------------|-------------|-------------|-------------|
| 6542A4 | 70.8 | 6.5 | 75.3 | 30.3 * | 4.4 | 26.2 | 45.9 | 23.8 | 52.1 * |
| 7402A4 | 71.8 | 7.5 | 74.6 | 27.4 * | 5.2 | 26.1 | 47.4 | 25.0 | 53.0 * |
| P1847 VYHR | 73.2 | 7.6 | 77.0 * | 28.9 * | 5.4 | 23.8 | 44.3 | 22.9 | 51.7 * |
| P1903 YHR | 74.7 | 7.6 | 78.2 * | 32.7 * | 4.5 | 22.4 | 42.4 | 22.2 | 52.4 * |
| SW 8100GENSS (RIB) - Smartstack | 72.9 | 8.1 | 75.8 * | 27.8 * | 4.8 | 24.9 | 45.4 | 23.1 | 51.1 |
| SW7560GENVT2P | 75.2 * | 8.5 | 77.4 * | 29.0 * | 5.3 | 22.8 | 43.2 | 22.1 | 51.4 |
| SW8109VIP3111 | 71.7 | 7.7 | 74.0 | 26.3 | 5.5 | 26.4 | 47.8 | 24.7 | 51.8 * |
| SP2928 3000GT | 73.9 | 9.0 | 75.2 | 27.2 | 5.4 | 24.5 | 44.3 | 21.4 | 48.7 |
| NK1573-5222 | 77.8 * | 9.9 * | 75.8 * | 27.4 * | 6.3 | 22.7 | 42.6 | 21.4 | 50.3 |
| NK1677-3110 | 73.4 | 8.1 | 75.5 | 25.2 | 5.2 | 26.8 | 47.5 | 25.6 | 53.9 * |
| NK1748-3110 | 71.7 | 7.3 | 73.4 | 26.7 | 5.1 | 27.0 | 48.1 | 24.2 | 50.3 |
| NK1808 3111 | 74.8 | 9.0 | 76.8 * | 29.5 * | 6.3 | 22.4 | 43.0 | 23.0 | 53.5 * |
| UFR 197 | 70.0 | 8.9 | 71.8 | 15.6 | 8.8 * | 28.9 * | 52.6 * | 25.8 * | 49.1 |
| UFR 299 | 72.8 | 8.5 | 73.5 | 16.6 | 6.5 | 30.2 * | 54.1 * | 28.0 * | 51.8 * |
| Mean | 74 | 8.3 | 75.5 | 27.0 | 5.8 | 24.6 | 45.2 | 22.9 | 50.8 |
| SE | 1.2 | 0.5 | 1.5 | 2.6 | 0.5 | 1.7 | 2.4 | 0.9 | 1.2 |

* indicates hybrids that performed similarly to the best hybrid, according to F-test at p<0.05. All means reported are least square means.

Parameters:

TDN, total digestible nutrients (% DM); CP, crude protein (% DM), IVTDMD30, in vitro true dry matter digestibility at 30h in rumen (% DM); starch (% DM); WSC, water soluble carbohydrates (% DM); ADF, acid detergent fiber (% DM); dNDF30, digestible NDF at 30 h in rumen; NDFD30, NDF digestibility (as % of NDF) at 30 h in rumen

Management information

Trial was conducted at the Plant Science Research and Education Unit, in Citra, FL; Planting date March 12, 2020

Planting rate was 30,628 K/Acre, 30-inch rows

Fertilizer Application LBS/Acre -N 270; P 56; K 211; Mg 16; S 36; Mn 10; Zn 4; divided in popup starter and 4 other applications; last application over irrigation

Pesticide application - Counter at planting, with Atrazine, Prowl and Dual; Tebustar, Headline at 30-inch plant height, and Headline Amp at tasseling; Insecticide as needed, total 6 applications (Coragen, Besiege, Warrior and Belt)

Trial was irrigated as needed

Harvests occurred between June 17 and June 23, 2020

Disclosure

This hybrid test is conducted independently by UF/IFAS faculty and is open for all seed companies to enter hybrids for the test.

Contact

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