2023

SILAGE GUIDE

SILAGE THAT WORKS FOR YOUR SUCCESS

Your success starts and ends with NK® and Enogen® hybrids for silage. From standout digestibility, high tonnage potential and the nutritional quality you demand, we are here to help you realize your herd's true potential. Exhaustive research and development is paired with products that put seed for silage in your hands faster.

You get stronger genetics, revolutionary technologies and an always-on approach to fuel your farm, every day.

what's inside

FIELD FORGED SERIES™

The Field Forged Series™ brings together our highest performers to drive your profit potential.

Look for the Field Forged icon on the product pages to see which products are in the Field Forged Series.

Choosing Your Silage Hybrid

Relative Maturity (RM)

Planting hybrids up to 10 days longer than an adapted full-season grain hybrid can offer potential yield advantages and typically still reach harvest before fall frost risk in most areas. If fields can be used for grain harvest, it may not be possible to increase RM as much. RM selection also needs to consider planting date spreads and the capability to harvest fields in a given time.

Root Strength

Hybrid root strength is important to ensure that plants are standing well to chop at an efficient speed.

Disease Tolerance

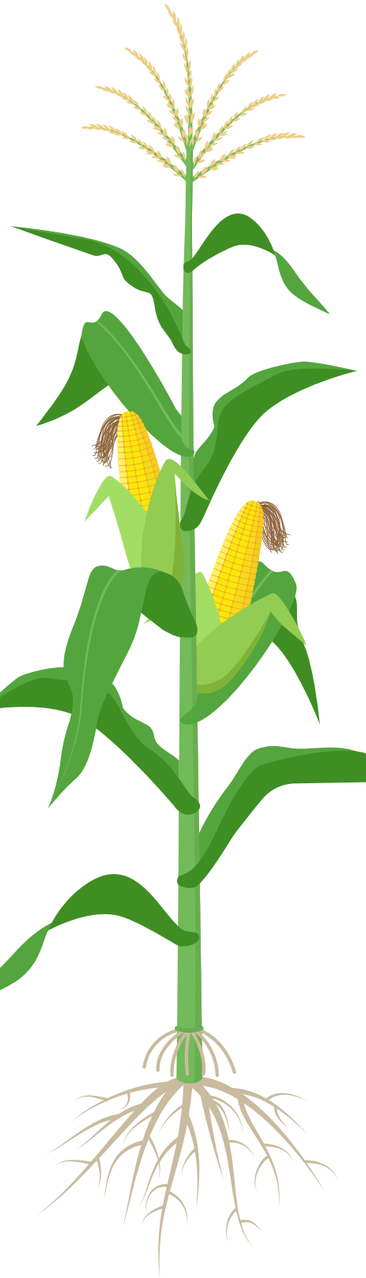
Many silage acres will often be in continuous corn acres, resulting in higher risk of potential disease presence. Hybrid selection should consider tolerance to diseases such as Gray Leaf Spot, Northern Corn Leaf Blight and other regionalized diseases such as Tar Spot. In addition, foliar fungicide applications can also help to reduce disease risk in fields.

Test Weight

Test weight is a measure of corn grain bulk density that is sometimes associated with kernel texture. Test weight tends to increase as grain becomes drier. Test weight is loosely related to kernel hardness, which is also known to influence livestock feed-to-gain ratio in feeder cattle; however, as silage is harvested at a higher moisture content, it is not as great a predictor of silage quality.

Staygreen

Hybrids with good late-season health or staygreen are known to better maintain green leaf area for a longer period. Staygreen can help to widen harvest windows and ensure proper plant moisture to minimize poor silage pit packing, spoilage and mold damage. Staygreen should not be used heavily for expanding the harvest window, as some hybrids will rapidly lose kernel moisture while leaves remain healthy and create a starch-protein matrix that is hard to digest. Kernel processors can help to improve starch digestibility once grain moisture starts to drop.



Insect Trait Selection

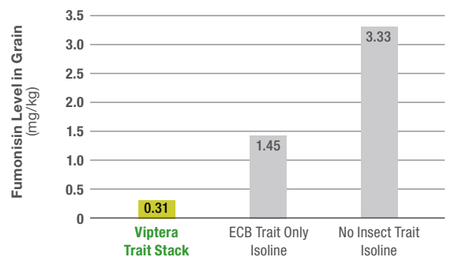
Silage acres often lack crop rotation because of ground limitations and feed needs. Consecutively planting multiple years of corn greatly increases the risk of insect populations and potential damage from insects. Trait selection should consider potential risk of damage from both above- and below-ground pests and diseases that can supervene insect damage.

- **Corn rootworm** risk increases with each consecutive year of corn rotations. **Duracade**™ traited hybrids and/or **Force® Brand Insecticide** may help mitigate risk.
- **Ear-feeding insects,** such as western bean cutworm and corn earworm, can reduce grain and starch in feed rations. The Vip3A protein, offered in **DuracadeViptera**™ and **Viptera**™ traited hybrids, is currently the only protein registered in traits for western bean cutworm protection.
- **Mycotoxins** can occur for a variety of reasons, but they are often associated with pathogen infection of grain following insect feeding damage. Ear protection with insect traits can indirectly help to reduce potential risk of silage mycotoxin contamination.

Duracade Viptera™

Viptera™

MYCOTOXIN REDUCTION WITH VIPTERA TRAIT*



Force, Force Evo, Force CS, Force 3G and Force 6.5G are Restricted Use Pesticides.

*Adapted from Bowers and Munkvold, 2014. Toxins, 6:2804-2825. Average of 3 years and across the combination of individual insect damage.

Tools to Manage Silage Yield and Quality Components

Corn silage provides a source of high-energy forage for dairy cows and it can provide a low-cost ration for fattening cattle. Depending on your goals, a variety of different approaches to management can be used to adjust specific quality (starch and fiber digestibility) and potential yield outputs when growing silage.

Seeding Rate

Seeding rates are routinely adjusted for corn produced for grain to optimize yield potential. Increasing grain yield with higher seeding rates also increases overall silage tonnage up to a point, but simultaneously reduces quality. The increased plant biomass from additional plants tends to dilute starch contributed from grain, resulting in higher fiber levels. As a result, milk per acre of silage can be increased with higher seeding rates, but milk per ton will inversely decrease. Increasing seeding rates from 2,000 to 4,000 over normal corn grain seeding rates will typically maximize both yield potential and quality.

Planting Date

Corn for silage or grain responds similarly to delayed planting. There is minimal impact on yield potential until planting is delayed into late May or June. It is common to see tonnage loss of one ton per week if planting after the last week in May; however, reasonable yield potential can still be achieved with June plantings. Energy levels are likely to reduce in later-planted silage as a result of lower starch levels from reduced grain fill.

Foliar Fungicide Application

Managing disease in silage corn can be just as important as when managing corn for grain. Previous research has illustrated how fungicides can improve both silage yield potential and quality before harvest and during the ensiling process.

- **Pre-Harvest Benefits:** Fungicide applications can prevent fungal diseases in the field, which can preserve leaf area to improve tonnage and possibly reduce the number of fungal pathogens ensiled within corn.
  - **Fungal Diseases** have also been known to cause a plant defense mechanism in which cell walls increase lignin content after being infected by pathogens, resulting in lower silage quality. Fungicide applications have shown the ability to minimize this lignin increase and improve silage quality with neutral detergent fiber (NDF) reductions and increased neutral detergent fiber digestibility (NDFd) and starch content.
- **Ensiling Benefits:** Research has shown increased levels of lactic acid during the silage ensiling process when corn receives foliar fungicides. Lactic acid is important for lowering pH levels to preserve silage for feeding later. Reducing fungal pathogens with foliar fungicides likely increases the lactic acid content and the fermentative quality of corn silage.

SEEDING RATE INFLUENCE ON SILAGE QUALITY AND YIELD*

*Syngenta Internal Study, 1990.

RESPONSE TO R1 APPLICATION OF MIRAVIS NEO FUNGICIDE

3 Year Average (2018-2020)

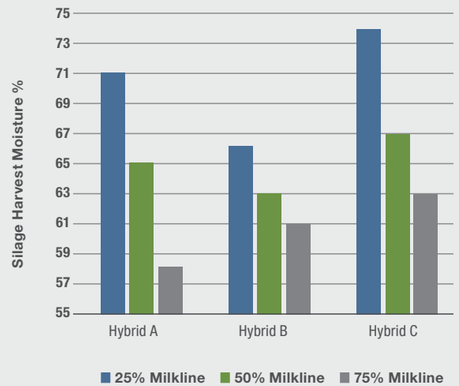
Harvest Adjustments
to Manage Silage Yield and Quality

Harvest Timing and Moisture Content

One of the most important management factors is aligning harvest timing to maximize nutrient value and deliver silage moistures that best fit the storage type. Silage at a moisture higher than target will ferment poorly and lose nutrients, whereas silage that is too dry will pack poorly, causing mold and spoilage. Recommended moisture contents are:

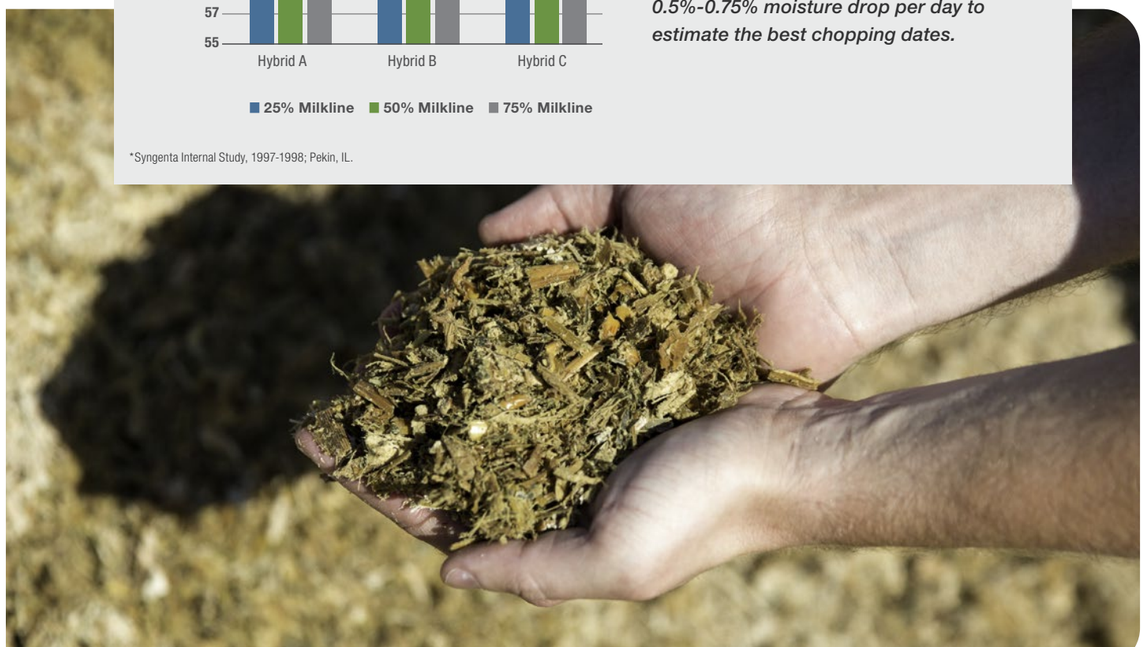
- **65%-70% for horizontal silos**
- **63%-68% for conventional tower silos**
- **55%-60% for limited-oxygen silos**
- **65% for silo bags**

HYBRID HARVEST MOISTURE DIFFERENCES IN RELATION TO MILKLINE*



Milkline is often referenced for targeting correct harvest moisture; however, weather and hybrid variations make this a poor indicator. Forage moisture testers or microwave ovens can be used to determine harvest moisture quickly. If testing shows moisture above ideal, use the rule-of-thumb drydown rate of 0.5%-0.75% moisture drop per day to estimate the best chopping dates.

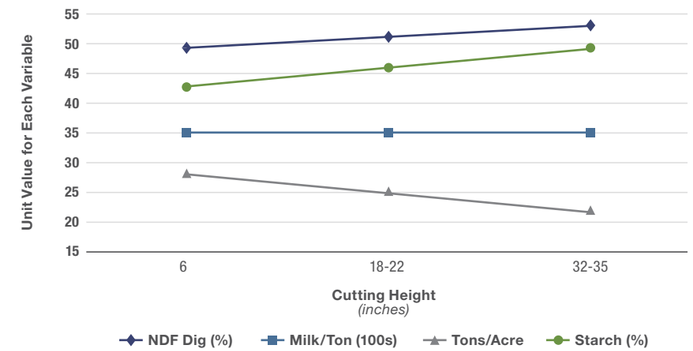
*Syngenta Internal Study, 1997-1998; Pekin, IL.



Cutting Height

While 6-8 inch heights are most common, cutting heights range 2-3 inches in some areas and up to 8-10 inches in other regions. These heights are used for a variety of reasons such as changing quality or simply to avoid equipment damage from stones. Increasing cutting height is a management practice that can increase energy content and NDFd by reducing total stover while maintaining grain content.

INFLUENCE OF CUTTING HEIGHT



Previous studies have shown adjusting 6 inches cutting heights to 18 inches can increase starch and NDFd levels by 2-3 percentage points. Tonnage reductions are the tradeoff for increasing quality. Increasing cutting height may be appealing if hay or haylage in storage is known to have lower fiber digestibility or if there are more acres dedicated to silage than needed.

Syngenta Internal Study, 2001-2002; Easterville, IA & Waterloo, NE.

Chop Length

Longer cut lengths make it more difficult to achieve a good pack, allowing more space for air between forage particles during the ensiling process and affecting the fermentation process. However, shortening cut length will reduce physical fiber and its effectiveness.

Finer chop will improve packing in all silo types, but it is especially important in upright silos where there is less opportunity to adjust pack methods. Recommendations for theoretical cut length of unprocessed silage range from 3/8 to 3/4 inch in length and 3/4 inch for silage processed with 1-2 mm roller clearance.

Kernel Processor

As kernels begin to mature, a starch-protein matrix forms that makes digestion more difficult. Kernel processors installed on choppers smash kernels to increase starch digestibility. The value of processing kernels may not be observed with corn in early milkline stages, but it typically provides nutritional advantages if harvesting milkline stages at half or later.

Approaches to Characterizing Hybrid Quality

Fiber Digestibility

Because of the relatively large amount of silage being in the form of stover, understanding fiber digestibility is important when corn silage is the largest portion of feed rations.

The relative fiber digestibility of a hybrid is largely dependent on how much lignin is present in silage. Lignin is the undigestible fiber that has no energy value to animals and helps compose the total fiber content of forage, expressed as neutral detergent fiber (NDF). Corn silage with a low NDF is desirable. Neutral detergent fiber digestibility (NDFd) measures the amount of NDF that can be digested, and larger values are more desirable. Hybrids vary significantly in quality due to fiber content and digestibility.

Starch Digestibility

Increased starch digestibility is known to improve energy availability for dairy cows, thereby improving milk production, feed efficiency, or both*. Besides hybrid differences, multiple management practices, such as harvest timing, kernel processing and length of time in storage, can greatly affect starch digestibility. Short-stature hybrids or raising chopping height can quickly reduce stover-to-grain ratio, resulting in higher starch content as well.

Whole-Plant Digestibility

Total digestible nutrients (TDN) describes the energy content of feed as the sum of the digestibility of different nutrients. TDN is often based on calculations using acid detergent fiber (ADF) which is a low-cost and rapid turnaround method to predict energy content. Significant variations in fiber digestibility often cause inaccuracies in ADF values, and TDN values tend to underestimate forage feeding values.

*Firkins et al., 2001; Ferraretto et al., 2013

NK Corn Hybrid Description Key

Hybrid Series: All hybrids within this series were developed from the same base genetics.

NK indicates NK corn.

This two-digit number is the same as the last two digits of relative maturity.

Randomly designated digits.

Trait versions available in this hybrid series.

Indicates product is part of the **Field Forged Series.**

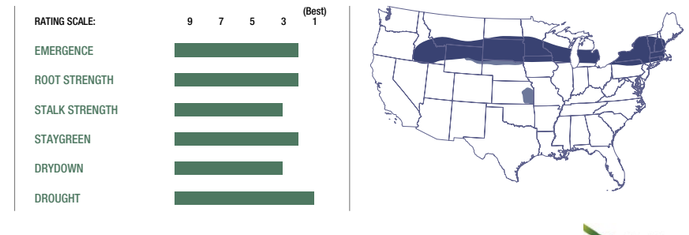
Indicates **new series for 2023.**

Relative maturity of this hybrid series.

NK0007 • NEW **NK0007-AA** Brand | FIELD FORGED SERIES | NEW | RM **100**

Excellent yield potential with strong roots and stalks

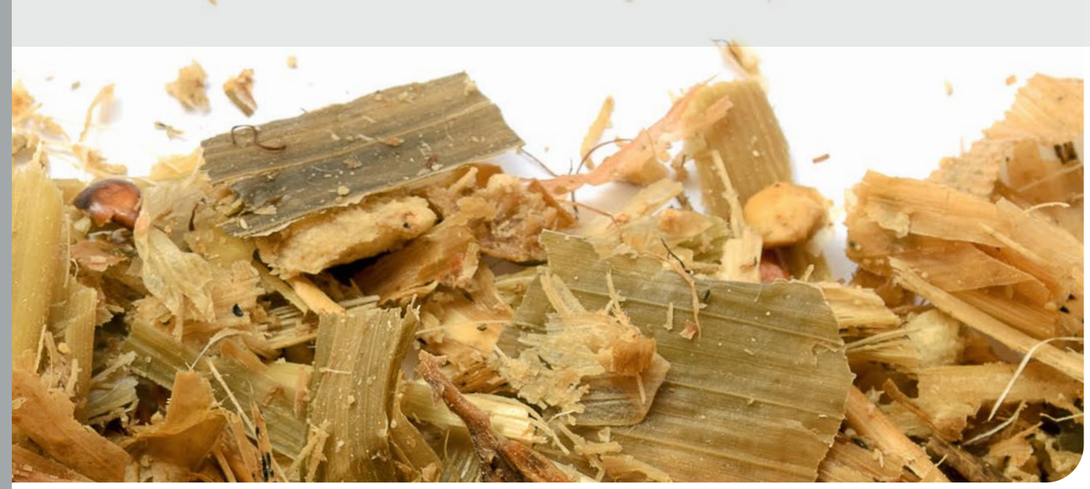
- Outstanding emergence for an early planting option
- Leading drought tolerance powered by Artesian technology
- Semi-determinate ear type and strong standability support higher populations for maximum yield potential



Artesian

Insect protection, herbicide tolerance and other **traits.**

Primary (dark blue) and, where applicable, secondary (light blue) **areas of adaptation** for this hybrid series. Areas are suggested; performance may vary.

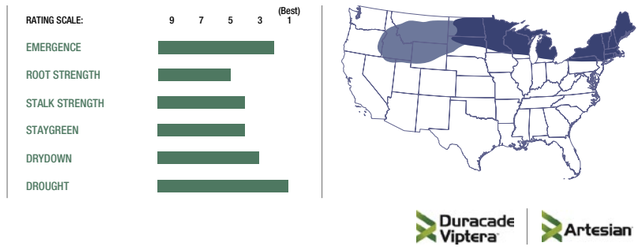


NK9175 • NK9175-DV Brand

FIELD FORGED SERIES | RM 91

Superior grain yield potential, forage yields and high NDF digestibility make this widely adapted hybrid a top dual-purpose corn for dairy producers

- Very high grain content and high NDF digestibility produce silage with high energy density
- Strong performance at above-average populations
- Outstanding drought and cool tolerance in the Northern Corn Belt; adapts well to all tillage systems



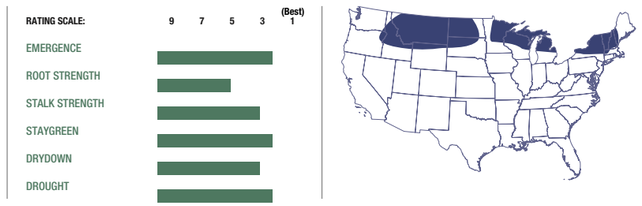
Duracade Viptera | Artesian

NK9231 • NEW NK9231-AA Brand

FIELD FORGED SERIES | NEW | RM 92

Excellent yield potential with versatility across variable and drought-prone soils

- Tall and robust with high grain yields, stability, and late staygreen, making this widely adapted hybrid a top dual-purpose corn for dairy producers
- Outstanding drought and cool weather tolerance in the Northern Corn Belt, with good adaptation to all tillage systems
- Very high grain content with high starch values to produce silage with high energy density
- Strong performance at moderate populations across variable and high-yielding soils

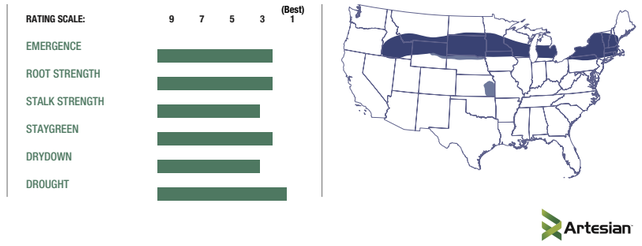


NK0007 • NEW NK0007-AA Brand

FIELD FORGED SERIES | NEW | RM 100

Excellent yield potential with strong roots and stalks

- Adaptable to a broad range of soils
- Excellent roots, stalks and late-season plant health with excellent staygreen
- Medium plant type with a determinant ear, high starch values which responds to population
- Excellent dual-purpose silage potential and high starch content



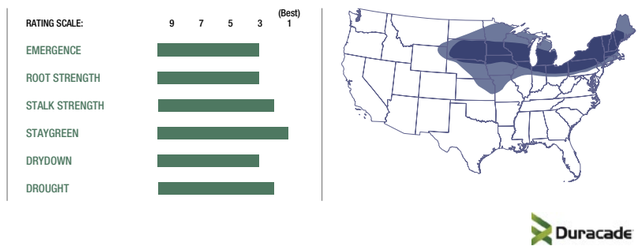
Artesian

NK0243 • NK0243-D Brand • NK0243-AA Brand

FIELD FORGED SERIES | RM 102

Adaptability to a broad range of soils

- Excellent roots, stalks and late-season plant health with excellent staygreen
- Robust plant with wide leaves and a big canopy that responds to higher fertility
- Medium plant with a large flex ear and vitreous starch
- Excellent dual-purpose silage potential and high starch content



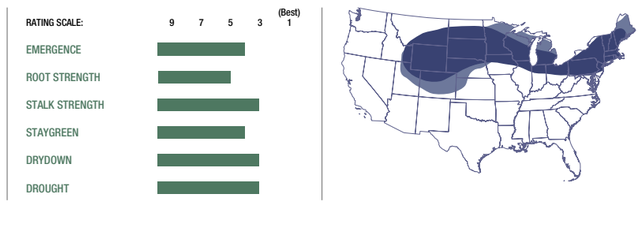
Duracade

NK0440 • NK0440-AT Brand

FIELD FORGED SERIES | RM 104

Tall, excellent dual-purpose hybrid offers very high yield potential of quality silage with superior drought tolerance

- Semi-flex ear type to handle diverse environments
- High yield potential as a high-moisture or dual-purpose silage hybrid
- Soft kernel texture for increased rumen efficiency and high forage starch potential

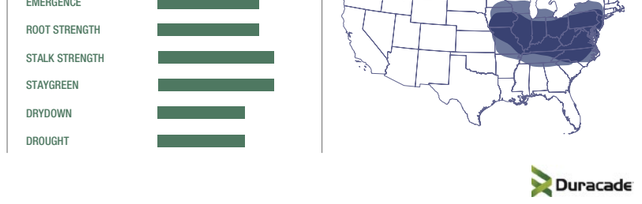


NK1239 • NK1239-D Brand

FIELD FORGED SERIES | RM 112

Improved plant integrity with better roots and stalks for this maturity

- Strong ability to perform as a dual-purpose silage hybrid at higher management levels in rotated or continuous corn acres across the Central and Eastern Corn Belt
- Tall, leafy, extremely vigorous hybrid for cooler soils and all tillage environments
- High levels of forage starch and silage tonnage combined with strong NDF digestibility for strong, dual-purpose silage



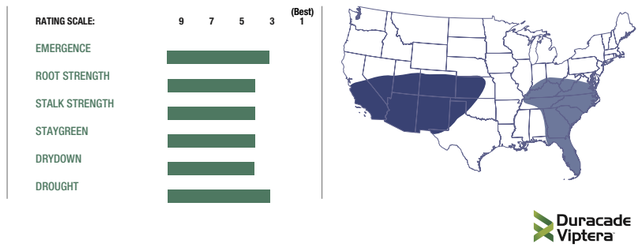
Duracade

NK1755 • NEW NK1755-DV Brand

NEW | RM 117

Very good choice for dual-purpose silage and grain

- Tall, high-yielding, dual-purpose silage hybrid with excellent drought tolerance combined with strong emergence to work across many tillage systems
- Moderate populations across variable soils to maximize performance in lower water-holding environments
- Strong performance in central, eastern and western environments
- Works well for dairy or beef operations with high NDFd and strong silage yields



Duracade Viptera

NK1838 • NEW NK1838-3110 Brand

FIELD FORGED SERIES | NEW | RM 118

High yield potential hybrid that excels in productive environments

- Tall, excellent dual-purpose hybrid offers very high yields of quality silage with superior drought tolerance
- Flex ear type to handle diverse environments along with high yield potential as a high-moisture or dual-purpose silage hybrid
- Soft kernel texture for increased rumen efficiency and high forage starch potential
- Better southern and western movement

NK Silage Hybrid Portfolio

	PRODUCT	MATURITY	CHARACTERISTICS						DISEASE TOLERANCE[1]			AGRONOMIC RESEARCH RATINGS[2]								
			Agronomic				Plant													
	NK Hybrid Series	Relative Maturity	Emergence	Root Strength	Drought	Staygreen	Plant Height	Ear Height	Gray Leaf Spot	Goss's Wilt	Tar Spot	Yield (Tons/A)	NDF 48 hr (% of NDF)	NDFd 48 hr (% of NDF)	Starch (% of DM)	TDN (% of DM)	Milk (lbs/Ton)	Milk (lbs/A)[3]	Beef (lbs/Ton)	Beef (lbs/A)
FF	NK8005	80	3	3	1	1	5	4	-	4	-	F	B	G	G	G	G	G	G	G
	NK8204	82	3	2	4	4	4	4	-	4	-	F	G	G	F	F	G	F	G	F
	NK8519	85	3	4	2	3	3	4	-	4	-	G	G	G	G	G	G	B	G	B
	NK8618	86	3	3	1	3	3	5	-	4	2	F	F	G	G	F	F	F	F	F
FF	NEW NK8760	87	2	3	2	4	4	4	-	4	2	P	G	G	G	G	G	F	G	F
	NK8881	88	3	3	1	4	3	5	-	3	-	G	G	G	B	G	G	F	G	F
	NK9023	90	3	4	3	3	2	2	-	5	-	G	G	F	G	F	F	G	F	G
FF	NK9175	91	2	5	1	4	3	4	-	4	2	G	B	G	B	G	G	G	G	G
	NK9227	92	2	4	1	3	2	2	-	4	3	G	F	G	G	G	G	B	G	B
FF	NEW NK9231	92	2	5	2	2	2	3	3	6	4	B	B	G	B	B	B	G	B	G
FF	NEW NK9347	93	3	3	3	4	4	5	3	4	4	G	G	G	F	G	G	G	G	G
	NK9535	95	3	3	2	2	3	4	4	3	3	G	B	G	B	G	G	G	G	G
	NK9653	96	2	3	2	3	2	2	3	4	2	B	G	G	G	G	G	B	G	B
	NK9991	99	3	2	3	2	3	3	2	5	4	F	G	G	G	G	G	F	G	F
FF	NEW NK0007	100	2	2	1	2	5	5	3	6	4	F	B	G	B	B	G	G	B	B
FF	NK0243	102	3	3	2	1	5	5	3	3	4	G	G	G	G	B	B	G	B	G
	NK0314	103	3	3	4	3	4	3	5	3	4	F	G	F	G	G	G	F	G	F
	NK0330	103	4	4	3	5	3	3	4	4	4	G	G	G	B	G	F	G	G	G
	NK0440	104	4	5	3	4	2	2	4	3	3	G	F	G	F	G	G	G	G	G
	NK0472	104	2	2	4	3	4	4	4	3	2	G	P	G	F	F	F	G	F	F
	NK0624	106	3	3	2	4	4	5	5	4	5	F	B	B	G	G	G	F	G	F
	NEW NK0696	106	2	2	3	3	5	4	3	4	5	B	B	G	B	G	G	B	G	B
FF	NK0748	107	3	3	3	3	3	3	3	5	5	B	G	F	F	G	G	B	B	B
	NK0821	108	2	3	1	5	4	5	4	3	4	G	F	F	F	G	G	F	G	F
FF	NK0877	108	3	2	2	4	5	5	5	4	-	G	G	G	G	F	F	G	G	G
	NK0962	109	4	4	1	5	5	3	5	4	4	G	G	G	G	G	G	G	G	G
FF	NK1026	110	3	2	3	3	3	2	2	3	3	G	G	F	G	G	G	F	G	G
FF	NK1082	110	2	5	1	5	5	6	4	3	4	G	B	G	B	G	G	G	G	G
FF	NK1188	111	3	3	2	4	4	6	4	6	4	G	G	F	F	G	G	G	F	G
FF	NK1239	112	3	3	4	2	2	4	3	3	2	B	P	F	P	G	G	G	F	G
	NK1349	113	4	3	4	2	3	3	3	3	3	G	B	G	B	B	G	G	G	G
	NK1354	113	2	2	3	3	4	4	4	3	4	G	G	G	G	G	G	F	G	F
	NK1364	113	3	5	3	5	4	5	6	4	-	G	F	G	G	B	B	G	B	F
	NK1452	114	3	2	3	4	3	2	5	4	3	G	B	G	B	B	B	B	B	B
FF	NK1460	114	3	2	2	3	3	2	4	4	3	G	B	G	B	G	G	G	G	G
	NK1523	115	4	2	2	4	3	5	4	4	2	G	G	G	F	B	G	G	G	G

	PRODUCT	MATURITY	CHARACTERISTICS						DISEASE TOLERANCE[1]			AGRONOMIC RESEARCH RATINGS[2]								
			Agronomic				Plant													
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	NK1573	115	3	3	4	2	4	5	3	4	7	B	B	G	B	G	G	G	G	G
FF	NK1661	116	3	2	1	3	3	3	3	3	4	G	G	G	B	G	G	G	G	G
FF	NK1677	116	3	3	5	3	2	3	3	2	-	G	P	G	P	G	G	B	G	B
	NK1694	116	4	5	2	3	4	4	5	3	3	G	G	G	G	G	G	G	B	G
FF	NEW NK1701	117	3	3	4	3	4	3	3	3	3	F	G	G	G	G	G	F	G	G
FF	NK1748	117	3	2	3	2	4	3	3	3	-	B	G	G	G	G	G	B	G	B
	NEW NK1755	117	3	4	3	4	3	5	3	3	-	G	F	B	F	G	B	B	B	B
	NK1808	118	4	4	3	2	3	3	3	4	2	G	F	G	F	G	G	B	G	B
	NK1822	118	4	4	4	5	2	3	6	5	-	F	B	B	B	G	G	G	G	G
FF	NEW NK1838	118	3	3	3	2	2	4	4	3	-	G	P	G	P	G	G	G	G	G
	NK1860	118	3	3	3	3	1	2	6	3	-	B	G	G	G	G	G	B	G	B

FF = Field Forged Series

AGRONOMIC CHARACTERISTICS
1 = Best
9 = Worst
- = Not Available

PLANT HEIGHT
1 = Tall
9 = Short

EAR HEIGHT
1 = High
9 = Low

DISEASE TOLERANCE
1 = High
9 = Low
- = Not Available

AGRONOMIC RESEARCH RATINGS
B = Best
G = Good
F = Fair
P = Poor
- = Not Available

DROUGHT
Artesian™ Water-Optimized Hybrid

Yield: Calculated on a per-acre basis and adjusted to standard moisture.

Neutral Detergent Fiber 48 Hour (NDF 48 hr): Measure of the indigestible and slowly digestible components of the silage.

Neutral Detergent Fiber Digestibility 48 Hour (NDFd 48 hr): Estimates the ruminant digestibility of the NDF fraction.

Starch: Indicates the percentage of feed component that is starch.

Total Digestible Nutrients (TDN): Sum of the digestibility of different nutrients.

Milk/Ton: An estimate of forage quality driven by starch content, starch digestibility and NDF.

Milk/A: Combines the estimate of forage quality (Milk/Ton) and yield (Tons/A) into a single term.[3]

Beef/Ton: A proprietary estimate of forage quality driven by TDN.

Beef/A: Combines the estimate of forage quality (Beef/Ton) and yield (Tons/A) into a single term.

[1] Disease and insect ratings are not absolute; environmental conditions and certain cultural practices, such as continuous corn, play a critical role in disease development and insect infestation, which can predispose plants to secondary diseases such as stalk and ear rots. If conditions are severe, even hybrids rated as resistant can be adversely affected. Farmers should balance yield potential, hybrid maturity and cultural practices against the anticipated risk of disease or insect pressure. Ratings are based on interpretation of statistically analyzed results of studies conducted by Syngenta.

[2] Digestibility ratings are based on NIR and in vitro digestibility analysis. Milk performance estimates are generated from University of Wisconsin equations. Comparisons should be made only among hybrids within a maturity group. Although actual silage yield and quality analysis of a hybrid will vary with environment, the relative ranking of a hybrid will be similar. These ratings are a relative performance guide. Conduct a laboratory test to determine actual silage quality when balancing a feed ration. These ratings should not be used to estimate actual production per animal, but instead they should be used to determine relative overall silage quality and yield of each hybrid.

[3] https://fyi.uwex.edu/forage/files/2016/11/Milk-2016-Combining-Yield-and-Quality-into-a-Single-Term-2.pdf

Improved Efficiency
for Fields, Feedlots and Dairies

Enogen corn offers proven, ***high-yielding*** corn hybrids that can help ***deliver improved feed efficiency*** to help lower feed costs for feedlots and dairy operations.

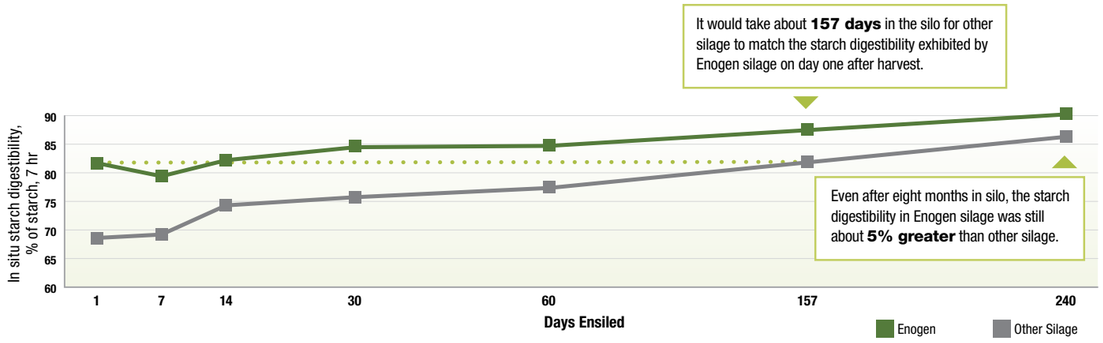
- **Improved feed efficiency of about 5%** when fed as silage or grain.[1]
- **Farm-proven results,** demonstrating excellent yield potential with elite genetics and traits.
- **Ultimate flexibility,** with the option to harvest as silage, high-moisture corn or grain.
- **Silage quality and consistency,** delivering greater levels of starch digestibility and more immediately available nutrients from day one after harvest and for more than eight months in the silo.[2]

Feeds Fast & Lasts Long

Starting at day one, Enogen silage delivers more available energy to your dairy cows[2]

Enogen corn contains a highly efficient alpha amylase enzyme that converts starch to usable sugars quickly, delivering more available energy for your dairy cows. Enogen grain or silage is not only high in energy, it's also easily digestible, leading to increased post-ruminal and total tract digestion.[1]

From day one, when you chop and store Enogen silage properly, the alpha amylase enzyme works almost immediately to increase starch digestibility and improve silage quality.



Enogen silage may last longer than other silage[5]

- **+42 hours of aerobic stability** in a standard lab "bucket" test
- **12% higher level of acetate** (which may act as a preservative)

Enogen silage may reduce methane emissions

- **7% less** methane per unit of milk produced[3, 4]
- **14-15% less** methane per unit starch or dry matter intake[4]

[1] Shaver, R. D. 2019. Enogen corn silage research summary. Proc. 4-State Appl. Nutr. & Mgmt. Conf. Dubuque, IA; Rebelo et al. 2020. J. Dairy Sci. 103 (Suppl. 1): 171 (Abstract). Cueva et al. 2021. J. Dairy Sci. 104, vol 9, 9827-9841.

[2] Syngenta Contract Research 2019; estimated from linear regressions for each hybrid type, R2 > 84% (Enogen, n = 104; Other, n = 64).

[3] Cueva et al. 2021. Lactational performance, rumen fermentation, and enteric methane emission of dairy cows fed an amylase-enabled corn silage. J. Dairy Sci. 104, vol 9, 9827-9841. https://doi.org/10.3168/jds.2021-20251.

[4] Rebelo, L., C. Lee, W. Weiss, and M. Eastridge. 2020. Effects of Enogen Feed corn silage and corn grain on nutrient digestibility, production, and enteric methane emission in lactating cows. J. Dairy Sci. 103 (Suppl. 1): 171 (Abstract).

[5] Kansas State University Research Studies, 2017.

Enogen Corn Description Key

Hybrid Series: All hybrids within this series were developed from the same base genetics.

E indicates Enogen corn.

This three-digit number is the same as the relative maturity.

Randomly designated digits.

Trait versions available in this hybrid series.

Indicates product is part of the **Field Forged Series.**

Indicates **new series for 2023.**

Relative maturity of this hybrid series.

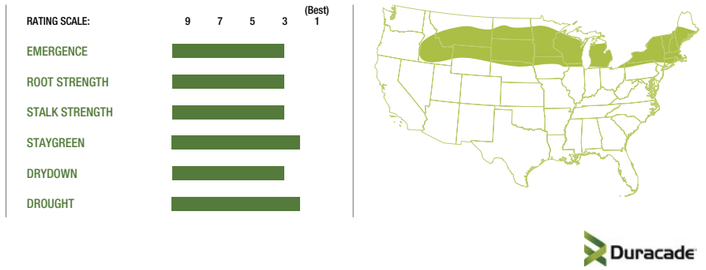
E100A3

• NEW **E100A3-D** Brand

FIELD FORGED SERIES | NEW | RM **100**

High-yielding dual-purpose hybrid combined with excellent nutritional value

- Strong agronomics that allow for movement across many environments
- Very good performance across all soil types
- Semi-flex ear type with sound agronomics for population flexibility



Duracade

Insect protection, herbicide tolerance and other **traits.**

Primary (dark green) and, where applicable, secondary (light green) **areas of adaptation** for this hybrid series. Areas are suggested; performance may vary.

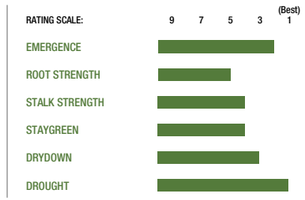
E092W5

• **E092W5-D** Brand

FIELD FORGED SERIES | RM **92**

Superior grain yield potential, forage yields and high NDF digestion make this widely adapted hybrid a top dual-purpose corn for dairy producers

- Very high grain content and high NDFd produce silage with high energy density
- Strong performance at above-average populations
- Outstanding drought and cold tolerance in the Northern Corn Belt and adapts well to all tillage systems



Duracade | Artesian

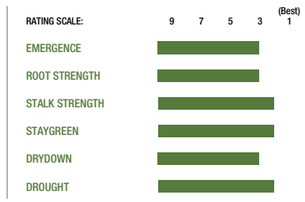
E095D3

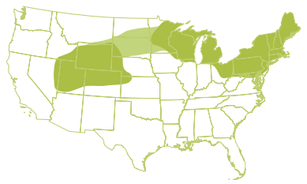
• **E095D3-D** Brand

RM **95**

Strong adaptability across all soils

- Strong adaptability across all soils
- Excellent high-end yield potential for silage along with outstanding drought tolerance
- Tall, robust plant with high levels of forage starch
- Excellent disease tolerance to move east and north of zone





Duracade

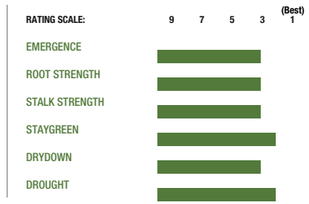
E100A3

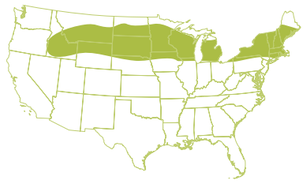
• NEW **E100A33-D** Brand

FIELD FORGED SERIES | NEW | RM **100**

High yield potential, dual-purpose hybrid combined with excellent nutritional value

- Improved plant integrity with better roots and stalks for this maturity
- Strong ability to perform as a dual-purpose silage hybrid at higher management levels in rotated or continuous corn acres across the Central and Eastern Corn Belt
- Healthy, vigorous hybrid for cooler soils and all tillage environments
- High levels of forage starch and silage tonnage combined with strong NDFd to be a strong dual-purpose silage candidate





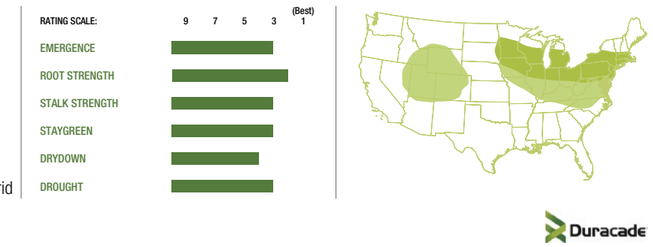
Duracade

E107C1 • E107C1-D Brand

FIELD FORGED SERIES — RM 107

Dual-purpose hybrid with outstanding grain yield potential and high forage yield potential combined with very good NDF digestion

- Few hybrids in this maturity can match this combination of yield potential and quality
- Strong northern and eastern movement across all soils as a dual-purpose silage hybrid
- Excellent roots and stalks combined with Agrisure Duracade® 5122 E-Z Refuge® for continuous corn acres in any dairy or beef operation



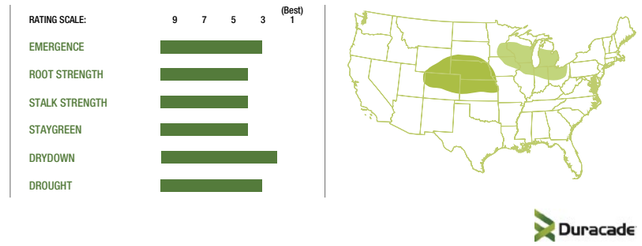
Duracade

E110F4 • E110F4-D Brand

FIELD FORGED SERIES — RM 110

Tall, high yield potential, dual-purpose silage hybrid with excellent drought tolerance combined with strong emergence to work across many tillage systems

- Moderate populations across variable soils to maximize performance in lower water-holding environments
- Strong performance in central, northern and western environments
- Works well for dairy or beef operations with high NDF digestibility and strong silage yield potential



Duracade

E112S5 • E112S5-D Brand

FIELD FORGED SERIES — RM 112

Improved plant integrity with better roots and stalks for this maturity

- Strong ability to perform as a dual-purpose silage hybrid at higher management levels in continuous corn acres across the Central and Eastern Corn Belt
- Tall, leafy, extremely vigorous hybrid for cooler soils and all tillage environments
- High levels of forage starch and silage tonnage combined with strong NDF digestibility to be a strong dual-purpose silage candidate

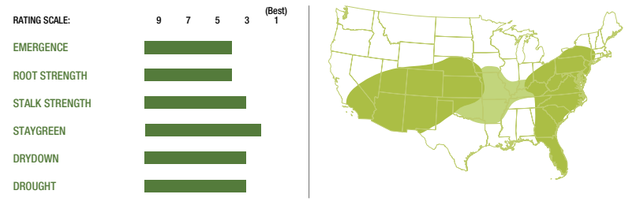
Duracade

E118D8 • E118D8-3000GT Brand

RM 118

High grain content and high forage starch produce silage with high energy density

- Tall, high-yield-potential hybrid with excellent dual-purpose grain or silage characteristics
- Broad adaptability across all soils to maximize silage performance
- Tall plant type with excellent roots and staygreen



Enogen Silage Hybrid Portfolio

PRODUCT	MATURITY	AGRONOMIC CHARACTERISTICS						DISEASE TOLERANCE[1]			ADAPTATION TO SOIL TYPES AND YIELD ENVIRONMENTS						
Enogen Hybrid Series	Relative Maturity (RM)	Emergence	Root Strength	Drought	Staygreen	Plant Height	Ear Height	Gray Leaf Spot	Goss's Wilt	Tar Spot	Continuous Corn	Drought Prone	High-pH Performance	Highly Productive	Variable	Poorly Drained	Nitrogen Response
E080Q1	80	3	3	1	1	5	4	-	4	2	G	B	G	G	B	G	G
E086J9	86	3	3	1	3	3	5	-	4	4	G	B	F	B	B	B	B
E092W5	92	2	5	1	4	3	4	-	4	-	F	B	P	B	B	G	G
E095D3	95	3	3	2	2	3	4	4	3	4	G	B	G	B	B	B	G
NEW E100A3	100	3	3	2	2	4	4	3	4	4	-	B	G	B	B	G	-
E105T1	105	2	5	2	2	2	3	4	3	3	G	B	G	B	B	B	B
E106Q6	106	3	3	2	4	4	5	5	4	4	B	B	F	B	B	G	F
E107C1	107	3	2	3	3	1	4	3	5	3	G	G	P	F	G	G	G
E110F4	110	3	4	3	4	4	3	4	3	2	F	F	G	G	G	G	G
E111V7	111	3	2	2	4	4	6	4	6	3	G	G	G	G	B	G	G
E112S5	112	3	3	4	2	2	4	3	3	2	B	F	F	B	B	B	F
E113N8	113	3	5	3	5	4	5	6	4	-	B	G	G	B	G	F	P
E113Z5	113	2	2	3	3	4	4	4	3	-	G	G	G	B	B	B	F
E116K4	116	4	5	2	3	4	4	5	3	-	G	B	P	B	B	F	G
E118D8	118	4	4	3	2	2	3	3	4	-	B	G	G	B	G	G	G

= Field Forged Series

AGRONOMIC CHARACTERISTICS
1 = Best
9 = Worst
- = Not Available

PLANT HEIGHT
1 = Tall
9 = Short

EAR HEIGHT
1 = High
9 = Low

ADAPTATION AND RESPONSES RATINGS
B = Best
G = Good
F = Fair
P = Poor
- = Not Available

DISEASE TOLERANCE
1 = High
9 = Low
- = Not Available

DROUGHT
Artesian™ Water-Optimized Hybrid

[1] Disease and insect ratings are not absolute; environmental conditions and certain cultural practices, such as continuous corn, play a critical role in disease development and insect infestation, which can predispose plants to secondary diseases such as stalk and ear rots. If conditions are severe, even hybrids rated as resistant can be adversely affected. Farmers should balance yield potential, hybrid maturity and cultural practices against the anticipated risk of disease or insect pressure. Ratings are based on interpretation of statistically analyzed results of studies conducted by Syngenta.

Notes

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Product performance assumes disease presence.

Agrisure Above · Agrisure Total · Artesian · Duracade · Duracade Viptera · Duracade Viptera z3

Viptera · Viptera z3 · LIBERTY LINK · HERCULEX I HX · HERCULEX XTRA HX