

# PROTECTING THE SOIL WHILE BEING PROFITABLE:

# WHY ALFALFA IS THE PERFECT CONTINUOUS COVER



When corn and soybean farmers think of protecting their soil from erosion and nutrient loss, cover crops are likely one of the first options that come to mind.

But a recent study by the University of Minnesota (UMN) found that continuous living crops not only provide the same environmental

benefits, they also increase farm net return. Alfalfa is one of the best continuous living crops because it is often more

profitable than corn and soybeans, has a high protein content, and does not require synthetic nitrogen. There is also the potential for increased demand due to growing and new markets, like pasture-raised beef and alternative protein.

"The benefits of alfalfa have become so normalized that it's kind of easy to forget how powerful this crop actually is," says Olivia Steinmetz, Legacy Seeds Alfalfa Breeding Research Director. "It is kind of the best of both worlds. Because what it is doing underground, having that continuous living cover with a really deep root system, is very good for the environment. But you harvest it, so you are not really sacrificing anything."

# **Reaping More Benefits with Alfalfa Roots**

Alfalfa's deep root system, in particular, is a great benefit for soils. The UMN study points out that perennials' root systems can stabilize soil, improve soil structure, enhance water infiltration, and improve the soil's water-holding capacity.

But alfalfa is also capable of developing a highly branched root system, a trait that two Legacy Seeds alfalfa varieties already have, including our newest variety, L46-08.

A highly branched root system means that the alfalfa has more root surface, so the root system is going both vertically and laterally through the soil.

"The branch-rooted type alfalfa is going to be better prepared for different environmental pressures," Olivia says. "With more roots, they are more able to soak in nutrients. There's potential for greater carbon sequestration. And more little roots breaking up the soil and creating passageways is only going to benefit your future crops as well."

Legacy Seeds is also working on developing varieties that display a creeping root system, which Olivia says could be very beneficial in pasture settings, potentially mixed with grass.



"The branch-rooted type alfalfa is going to be better prepared for different environmental pressures."



# **Consistent Quality Every Time**

To fully capture all of the advantages of alfalfa, a grower needs a consistent, reliable stand. That is why every Legacy Seeds alfalfa variety has to meet our breeding program's three pillars of yield, quality, and persistence.

That means it not only survives multiple winters, but it continues yield well after many harvests. And it can only achieve those goals if it is healthy and protected from various diseases, which is why we will be releasing material that is resistant to the latest race of Anthracnose: Race 5.

Legacy Seeds' breeding approach is based on patience. From development in the greenhouse to multiple winters in field trials, it takes about 5-8 years to develop and test new potential varieties before we would ever bring them to market. Anytime a grower visits the Research and Learning Center, they can find alfalfa material at any stage of the product development and testing cycle.

### Alfalfa Seed Growers Can Trust

Alfalfa is a fantastic option for corn and soybean growers who want to protect their soil and environment, while still protecting their profits. With the demand for alfalfa likely to grow, farmers need a seed they can trust will have outstanding yield and strong persistence. Legacy Seeds alfalfa already delivers on that, and we'll continue to breed for the needs of alfalfa farmers.



"Legacy Seeds is also working on developing varieties that display a creeping root system."



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# L-457HD+

#### Highly Digestible with APH2 Resistance

- » Highest yielding HD® variety
- » Maintains outstanding forage quality even in delayed harvest
- » Strong disease resistance including Aphanomyces Race 2
- » Saline Tolerance
- » FD 4.3, WSI 1.8, DRI 34/35





# L47-44

#### Excellent Yield, Persistence, and Quality

- » New variety with strongest winter survival
- » Outstanding forage yield and quality in aggressive harvestability
- » Very fast recovery after harvest
- » Saline Tolerance
- » FD 4.7, WSI 1.0, DRI 33/35







**NEW** 

# L46-08

#### High Aphanomyces Resistance - Race 1, 2, & 3

- » Delivers top forage yields on tough soils
- » Excellent forage quality potential
- » Branch rooted alfalfa
- » Strong winter survival and persistence
- » FD 4.5, WSI 1.9, DRI 35/35



# L49H39

#### **NEW**

#### Powered by UltraBred® \*\*

- » Proprietary from Legacy Alfalfa Breeding program
- » Excellent Yield, Quality and Persistence
- » Diverse populations with increased genetic purity
- » Extended forage quality over time
- » FD 4.3, WSI 1.3, DRI 34/35





# L49H47

#### **NEW**

#### Powered by UltraBred® \*\*

- » Proprietary from Legacy Alfalfa Breeding program
- » Excellent Yield, Quality and Persistence
- » Diverse populations with increased genetic purity
- » Fast Recovery after harvest
- » FD 4.7, WSI 1.4, DRI 34/35





## L-442RR

#### Roundup Ready® Alfalfa with HR to APH2

- » Roundup Ready® variety with improved yield and forage quality
- » HR to Aphanomyces Race 2
- » Stem Nematode resistant
- » Great weed control option
- » FD 4.4, WSI 1.3, DRI 35/35



# L45-52RR

#### FD 5 Roundup Ready® Alfalfa with HR to APH2

- » Roundup Ready® variety for longer season harvest
- » Improved yield and forage quality
- » Stem Nematode resistant
- » Exceptional disease resistance
- » FD 5.0, WSI 1.4, DRI 35/35



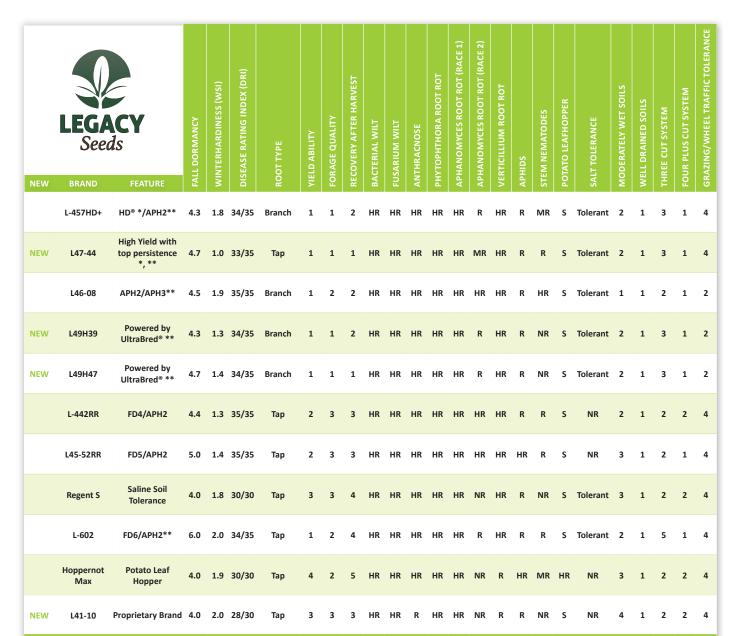
# L41-10

#### NEW

#### Proprietary Brand

- » Very good yield potential
- » Very good forage quality potential
- » Works well in 3-4 cut systems
- » FD 4.0, WSI 2.0, DRI 28/30





#### **RATING KEY**

\*: Highly Digestible | \*\*: StandLife Genetics®

Recovery after Harvest Ratings: 1 = Very Fast | 2-3 = Fast | 4-5 = Average | 6-7 = Slow | 8-9 = Very Slow

Disease Ratings: HR = Highly Resistant | R = Resistant | MR = Moderately Resistant | LR = Low Resistance | S = Susceptible | NR = Not Rated

Performance Ratings: 1-2 = Excellent | 3 = Very Good | 4-5 = Average | 6-7 = Fair | 8-9 = Poor



Inspired by the hybrid idea, we have created new products using proprietary methods to increase heterosis and improve genetic purity. This unique process of alfalfa variety development produces great yield and quality potential, with excellent persistence and production on each acre.





The **Roundup Ready® Alfalfa** system provides the opportunity to deliver unsurpassed weed control with superior crop safety, allowing you to grow more, higher-quality alfalfa. With the broadest application timing window plus excellent crop safety, Roundup Ready® Alfalfa requires minimal waiting — only 5 days before grazing or harvest. Roundup Ready® Alfalfa can deliver a higher percentage of pure alfalfa in hay and haylage than competitors, along with improved quality, and has low ADF (acid detergent fiber), low NDF (neutral detergent fiber) and high RFV (relative feed value).

# RATION CHOICE® SIMPLIFIES CORN SILAGE MANAGEMENT

Brown Midrib (BMR) corn has long been considered the "pinnacle" for silage corn, given its high fiber digestibility. But growers have learned it needs more management, including 1-2 fungicide passes and spoonfeeding nitrogen.

With Ration Choice®, you do not have to "baby" your silage corn to grow a high-quality forage. In addition to still providing a great



feed for your livestock, you can expect to save money, increase yields, and feed your herd faster.

#### **Low Maintenance**

Many of the hybrids in the Ration Choice® lineup are very defensive. You can skip the fungicide altogether and just apply a pre-emerge dry fertilizer, a starter fertilizer, and maybe one side-dress application, and still get higher yields.

"I've been on plenty of farms that will hit that 30-ton yield with what I would call a standard program," says Judd Hodgen,

Legacy Seeds Forage and Crop Specialist. BMR, on the other hand, typically yields in the 24- to 26-ton range.

That defensiveness means Ration Choice® can handle challenging soils. There are several hybrids that have very good drought tolerance, some containing the DroughtGard® trait, making them ideal for dry, sandy soils. On the other end, heavy, water-holding clays tend to warm up slowly and can cause germination issues for BMR. But we have several Flexible Acre hybrids with excellent seedling vigor that will not be bothered by "wet feet."

### Fewer Plants, Faster Feed

"You're buying a less expensive product, and you're putting in 15-20% less seed per acre, so you're getting cost savings from the start," Judd says.

And Ration Choice® does not need to ferment as long as BMR, which can take as long as 6 months before its starch is usable.

So you get more silage, at a lower cost, with less management, without compromising fiber digestibility and your herd's needs.

DroughtGard® is a registered trademark of Bayer Crop Science.



"While BMR typically requires a planting population of 34,000 to 36,000, with Ration Choice® hybrids — especially the leafy hybrids containing the Opaque-1 gene — we like to see a final stand of 28,000."



# RATION CHOICE® CORN SILAGE SYSTEM

We take pride in understanding our customers' needs and expectations. Which is why we take a different approach than our competition. Most of the industry continues to focus on developing and selling "grain hybrids" for silage use. Legacy Seeds has a rigorous testing program that allows us to identify and develop products that are designed for animal feeding and silage use that meet and exceed your expectations.

Our Ration Choice hybrids are specifically chosen for their silage yield along with characteristics that you value, such as: **yield, starch, fiber, and sugar digestibility.** This enables Legacy Seeds to match the right products to your operation's specific needs and expectations, which enables you to maximize your herd's potential.

For more information on the Ration Choice Program and products, please contact one of our silage professionals about how we can help you achieve the best ROI for your operation.

## Visit for more information.



At Legacy Seeds, we believe in offering choices to corn silage producers to meet the needs of their dairy or livestock operation. Our **RATION CHOICE® HYBRID (RCH)** system allows you, as the producer, to choose which silage system works best for your farm, from high-yielding and high-forage-quality Flexible Acre varieties to high-yielding Leafy silage varieties.

# FLEXIBLE ACRE HYBRIDS (FA)

**Flexible Acre (FA)** corn silage hybrids offer many benefits to the corn silage producer. If you have the need to have more flexibility at harvest time, Flexible Acre hybrids can be the right choice. Flexible Acre hybrids that have been tested for forage yield and digestibility, starch content, and starch digestibility. Flex Acre hybrids work best in a 50:50 corn silage/alfalfa rations and where alfalfa is greater than 60% of the forage diet for dairy cattle.

# CORN TRAIT KEY

Agrisure LIBERTY 3010

**3010** Agrisure® 3010

Agrisure LIBERTY LINK W

3110

Agrisure Viptera® 3110

Agrisure Above

AA Agrisure® Above E-Z Refuge®

∠ AgrisureGT

**GT** Agrisure® GT

Duracade

DV

DuracadeViptera™ E-Z Refuge®

Duracade

Duracade® E-Z Refuge®



RR2

Roundup Ready® Corn 2



SSX RIB

SmartStax® RIB Complete® Corn Blend



VT2P RIB

VT Double PRO® RIB Complete® Corn Blend



DGVT2P RIB

DroughtGard® Hybrids with VT Double PRO® RIB Complete® Corn Blend



PCF

PowerCore® Enlist® Refuge Advanced®

# SILAGE SPECIFIC SILAGE HYBRIDS (LFY)

Using Legacy Brand Silage Specific Hybrids (LFY), you get exceptional tonnage per acre at a reduced planting rate than typical flexible acre or BMR hybrids. Leafy hybrids are bred specifically for corn silage and high-moisture-shelled corn production. Leafy hybrids consistently have high stalk and leaf digestibility, along with improved starch digestion due to the use of more floury starch types and softer kernel textures. There are many benefits to using Legacy Seeds Silage Specific Hybrids, such as: improved dry matter intake, ration flexibility, improved herd health, higher forage yields per acre with less seed cost per acre, and superior fiber and starch digestibility. Leafy varieties can be best utilized in dairy rations where corn silage makes up greater than 60% of the forage diet or in an alfalfa diet where RFQ levels are greater than 160%.

**LC354-20** 85 RM

**OPTIONS: CONV, GT** 

- » Big, beefy, flex acre hybrid with wide, dark green leaves
- » High yields especially following rotated acres on well drained soils
- » Good late season staygreen and intactness for a longer silage harvest window
- » Flowers early for good north of zone movement

RATION CHOICE

**LC381-23** 88 RM

OPTIONS: CONV, VT2P RIB

- » Excellent stress hybrid with a high starch & sugar content
- » Strong milk per ton and milk per acre scores
- » Solid agronomics
- » Very good east to west and north to south movement





**LC391-20** 89 RM

#### **OPTIONS: VT2P RIB**

- » High starch content hybrid with very good starch digestibility
- » Flex acre hybrid with top of test performance for grain or silage
- » Good ear flex for variable rate planting
- » Will position in all yield environments

RATION & CHOICE

LC-3017

90 RM

OPTIONS: CONV, RR2, VT2P RIB

- » Good milk per ton and milk per acre ratings
- » Yield consistency over a wide geography is a strength
- » Very good fiber digestibility
- » Excellent choice for acre flexibility

RATION TCHOICE

LC-3048

**90** RM

#### **OPTIONS: VT2P RIB**

- » High grain content for silage along with very good starch digestibility
- » Tonnage comes from high grain yields
- » Performs extremely well in variable to high yield environments
- » High milk per ton ratings

RATION OCHOICE

LC403-22

**90** RM

#### OPTIONS: AA

- » Solid flex acre hybrid that performs in all yield environments
- » Top of test fiber digestibility
- » Higher starch content with very good starch digestibility
- » Top of test Milk Per Ton hybrid

RATION TO CHOICE

LC431-20

93 RM

#### OPTIONS: CONV, RR2, VT2P RIB, SSX RIB

- » Combines very good fiber and starch digestibility together
- » Very strong tonnage and milk per acre
- » Will handle stress acres to high yield environments
- » Above average protein contents

RATION TCHOICE

LC451-21

95 RM

#### OPTIONS: CONV, VT2P RIB, SSX RIB

- » Taller profile hybrid with very good overall plant yields
- » Very good whole plant digestibility
- » Good starch content and starch digestibility
- » Early flowering flexible acre hybrid for good northern movement

RATION & CHOICE

**LC454-22** 95 RM

#### OPTIONS: VT2P RIB

- » High yielding, flex acre hybrid with top of test performance
- » Top of test fiber digestibility
- » Very good starch content with excellent starch digestibility
- » Top of test hybrid for milk per ton and milk per acre



OPTIONS: CONV, RR2, VT2P RIB

- » High starch content hybrid with very good starch digestibility
- » A must plant hybrid that brings the tonnage
- » Flexible acre hybrid that will move east to west and north to south
- » Works in all yield environments and soil types

RATION TCHOICE

LC-3517

LC 461-21 96 RM

#### **OPTIONS: DGVT2P RIB**

- » Excellent total yield and silage quality
- » High starch content variety with good starch digestibility
- » Flowers early for good north of zone movement
- » Handles stress environments very well

RATION TCHOICE

LC464-21

**96 RM** 

95 RM

#### **OPTIONS: AA**

- » Tall, impressive plant structure with a lot of eye appeal as a flex acre hybrid
- » Strong silage quantity and quality characteristics
- » Impressive, flex style ears with large, deep kernels
- » Very good late season intactness and staygreen

RATION TCHOICE

LC465-23

#### **OPTIONS: PCE Refuge Advanced®**

- » Taller profile hybrid with strong forage yields
- » Very good starch content, starch digestibility and sugar content
- » Excellent disease control especially Tar Spot
- » Positions well east to west and south of zone

RATION CHOICE



**96 RM** 

LC494-23

99 RM

#### **OPTIONS: PCE Refuge Advanced®**

- » Excellent yield and quality flex-acre hybrid
- » Very good fiber digestibility
- » High starch content and digestibility scores
- » Strong disease package, especially Tar Spot

RATION CHOICE



**LC-4248** 100 RM

#### OPTIONS: CONV. VT2P RIB. SSX RIB

- » Excellent flexible acre hybrid that brings a lot of yield
- » High starch content variety with good starch digestibility
- » Top milk per ton and milk per acre hybrid makes this a top silage option
- » The higher the management the more performance you get

RATION TCHOICE

LC502-22

**100** RM

#### OPTIONS: CONV, AA

- » Strong yields and quality forage
- » Higher protein content hybrid
- $\ensuremath{\text{\textbf{y}}}$  Very good starch content and starch digestibility scores
- » Very good TTNDFD scores



LC511-21 **101** RM

**OPTIONS: SSX RIB** 

- » Taller profiled hybrid with excellent silage tonnage
- » Scores well with high fiber digestibility
- » High milk per ton and milk per acre scores
- » Positions well in all yield environments

RATION TCHOICE

» Very good late season intactness and plant health

University trials

OPTIONS: CONV, RR2, VT2P RIB

LC-5217

RATION & CHOICE

» Higher starch content for more milk per ton

» Higher tonnage hybrid in both on farm trials and

» Taller profiled hybrid that brings performance consistency

LC525-21 **102** RM

OPTIONS: CONV, PCE Refuge Advanced®

- » Tall hybrid with excellent fiber digestibility
- » High starch content hybrid with very good starch digestibility
- » Solid agronomics
- » Must plant hybrid for top quality corn silage

RATION CHOICE

LC544-22

**104** RM

**102** RM

OPTIONS: CONV, PCE Refuge Advanced®

- » Solid performing flex acre hybrid » Strong fiber and starch digestibility
- » Lots of Milk Per Acre with this hybrid

» Very healthy hybrid, controls Tar Spot well

RATION CHOICE

LC554-23 **105** RM

**OPTIONS: SSX RIB** 

- » Exceptional yielding flex acre hybrid
- » Good fiber digestibility with a lower lignin content
- » Very good starch content and starch digestibility
- » Excellent agronomics

RATION & CHOICE

LC555-21

**105** RM

**OPTIONS: D** 

- » Very good quality corn silage
- » Excellent starch digestibility
- » Very good milk per acre per acre ratings
- » Must plant hybrid in this maturity

RATION OCHOICE

LC564-20

**106** RM

OPTIONS: CONV, PCE Refuge Advanced®

- » Very good tonnage and quality ratings
- » Consistent performance from acre to acre
- » Good NDF30 scores along with lower lignin content
- » Strong starch content and digestibility ratings

RATION & CHOICE

LC565-22

**106** RM

**OPTIONS: PCE Refuge Advanced®** 

- » Showy plant style with excellent tonnage
- » Solid starch content and digestibility
- » Excellent ear flex and ear consistency down the row
- » Overall great plant health and bullet proof against Tar Spot



**LC585-22** 108 RM

#### OPTIONS: 3010

- » Tall, robust statured plant with rock solid agronomics
- » Solid tonnage and quality performance year after year
- » Excellent foliar and stalk health. Great Tar Spot protection
- » Slower drydown for a longer harvest window

RATION TCHOICE

**LC605-23** 110 RM

#### **OPTIONS: PCE Refuge Advanced®**

- » Medium statured hybrid with a lot of grain
- » Very good tonnage
- » Carries a higher sugar content
- » Go anywhere hybrid

RATION TCHOICE



LC623-21

**112** RM

#### **OPTIONS: D**

- » Tall hybrid that offers excellent tonnage opportunities as a flexible acre hybrid
- » Medium kernel texture for very good starch digestibility
- » Excellent late season intactness and staygreen for a longer harvest window
- » Strong silage appeal

RATION TCHOICE

LC634-20

**113** RM

#### **OPTIONS: CONV, SSX RIB**

- » High fiber digestibility flexible acre hybrid
- » Very adaptable hybrid from east to west and north to south
- » Very good starch digestibility
- » Consistent performance year in and year out

RATION TCHOICE

LC644-22

**114** RM

#### **OPTIONS: DV**

- » Tall, robust plant type with large flexing ears
- » Very good late season plant health and late season intactness
- » Big piles of silage with very good silage quality
- » Very good Tar Spot control

RATION TCHOICE

LC416-20 LFY

**91** RM

#### OPTIONS: CONV LEAFY, RR2 LEAFY

- » Taller hybrid that offers outstanding tonnage in high to variable yield environments
- » White cob hybrid with excellent starch digestibility
- » Long flexing ears with a softer kernel texture for quicker starch utilization
- » Will carry 9-12 massive leaves above the ear

RATION TCHOICE

**LC-3567 LFY** 

95 RM

#### OPTIONS: CONV LEAFY, RR2 LEAFY

- » High tonnage leafy hybrid with exceptional agronomics
- » White cob hybrid with large flexing ears
- » Soft kernels for excellent starch digestibility that will put milk in the tank
- » This hybrid will position in all yield environments

RATION TCHOICE

**LC-3667 LFY** 

**96 RM** 

#### OPTIONS: SSX RIB LEAFY

- » High tonnage leafy hybrid with lots of leaf mass
- » Higher starch content leafy hybrid with soft kernel texture for very good digestibility
- » Good adaptability to yield environments
- » 8-11 leaves above the ear



# **LC-3961 LFY**

96 RM

#### OPTIONS: CONV LEAFY, RR2 LEAFY

- » High yielding leafy hybrid with 9-12 leaves above the ear
- » White cob hybrid with large slow drying, soft kernels for exceptional starch digestibility
- » A star silage performer that puts milk in the tank
- » Has exceptional spring vigor that handles variable soil types



LC516-24

RATION & CHOICE

**101** RM

**97 RM** 

# LC506-22 LFY

**100** RM

#### **OPTIONS: RR2 LEAFY**

- » High tonnage with this floury, leafy hybrid
- » High grain content with a white cob
- » Good starch content with very good starch digestibility
- » Excellent late season plant health for a longer harvest window



#### **OPTIONS: FF CONV LEAFY**

**LC476-21 FF LFY** 

starch digestibility

» Excellent feed quality

OPTIONS: FF CONV LEAFY, FF RR2 LEAFY

» Strong plant yields with a white cob

» Full floury, silage specific hybrid that will offer top-notch

» Very good plant health for a longer harvest window

- » High protein content, full floury conventional silage specific hybrid
- » Very good yields on reduced plant populations
- » Good starch content and starch digestibility
- » Excellent DM intake variety





# LC526-20 LFY

**102** RM

#### **OPTIONS: SSX RIB LEAFY**

- » Top yields and agronomics on this floury leafy hybrid
- » Good starch content with very good starch digestibility
- » Higher protein content leafy silage hybrid
- » Very good feed quality and digestibility

# RATION & CHOICE

# LC556-21 LFY

**105** RM

#### **OPTIONS: SSX RIB LEAFY**

- » Very good total plant yield on this leafy hybrid
- » Very good starch content with good starch digestibility
- » Solid agronomics and plant health
- » Long harvest window



# LC556-23

105 RM

#### **OPTIONS: RR2 LEAFY**

- » High tonnage, silage specific hybrid
- » Impressive looking hybrid with 11-13 leaves above the ear
- » full flex ears with soft kernel texture on a white cob
- » Excellent for either silage or earlage





# LC586-22 LFY

108 RM

#### **OPTIONS: RR2 LEAFY**

- » Excellent tonnage on this floury leafy
- » Higher starch content with very good starch digestibility on a white cob
- » Robust plant type with 10-12 leaves above the ear
- » Solid agronomics



# LC606-24

## **110** RM

#### **OPTIONS: SSX RIB LEAFY**

- » Strong yields for either silage or earlage
- Produces an excellent balance of effective and digestible fiber
- » Has soft dent type starch for good 7 HR starch digestibility
- » Impressive looking hybrid with 9-12 leaves above the ear







Г	NTIN	N CHOICE	MATURITY INFO SILAGE QUALITY AND FORAGE CHARACTERISTICS											
NEW	BRAND	SILAGE SYSTEM	VALUE ADDED TRAITS/OPTIONS	RELATIVE	COB COLOR	EAR TYPE	PLANT HEIGHT	KERNEL TEXTURE	FIBER DIGESTIBILITY	STARCH CONTENT	STARCH DIGESTIBILITY	SILAGE YIELD	SILAGE QUALITY	PLANTING RATE 1000'S
	LC354-20	FA	CONV, GT	85	Р	SF	MT	М	3	2	2	2	2	28-36
NEW	LC381-23	FA	CONV, VT2P RIB	88	R	SF	т	МН	3	1	1	1	1	28-34
	LC391-20	FA	VT2P RIB	89	Р	SF	M	МН	3	1	2	1	1	30-36
	LC-3017	FA	CONV, RR2, VT2P RIB	90	R	SF	M	М	2	2	2	2	2	30-38
	LC-3048	FA	VT2P RIB	90	R	SF	M	М	2	2	2	3	2	30-38
	LC403-22	FA	AA	90	R	SF	MT	М	2	2	2	3	2	24-34
	LC431-20	FA	CONV, RR2, VT2P RIB, SSX RIB	93	R	SF	MT	М	2	3	2	3	3	30-36
	LC451-21	FA	CONV, VT2P RIB, SSX RIB	95	R	SF	MT	МН	2	2	3	2	2	32-38
	LC454-22	FA	VT2P RIB	95	R	SF	MT	M	1	3	1	1	1	30-38
	LC-3517	FA	CONV, RR2, VT2P RIB	95	R	SF	M	M	3	2	3	2	3	30-38
	LC461-21	FA	DGVT2P RIB	96	R	FL	MT	МН	2	1	2	2	1	24-34
	LC464-21	FA	AA	96	R	SF	MT	M	1	2	1	2	2	26-36
NEW	LC465-23	FA	PCE Refuge Advanced®	96	R	SF	MT	M	2	2	1	1	3	30-38
NEW	LC494-23	FA	PCE Refuge Advanced®	99	R	SF	MT	M	2	1	1	1	1	32-38
	LC-4248	FA	CONV, VT2P RIB, SSX RIB	100	R	SF	MT	M	1	2	2	1	1	28-36
	LC502-22	FA	CONV, AA	100	R	SF	M	M	2	2	2	2	1	26-36
	LC511-21	FA	SSX RIB	101	R	SF	MT	M	1	3	1	2	2	30-36
	LC-5217	FA	CONV, RR2, VT2P RIB	102	R	SF	MT	МН	3	3	2	2	3	30-38
	LC525-21	FA	CONV, PCE Refuge Advanced®	102	Р	SF	Т	M	2	3	1	2	2	32-38
	LC544-22	FA	CONV, PCE Refuge Advanced®	104	R	SF	MT	M	1	2	2	1	1	24-34



RAIIUN & CHUICE			NITY RITY	JIOR	PE	_		ІВІГІТУ	- E	STARCH DIGESTIBILITY	YIELD	>	S,000	
NEW	BRAND	SILAGE SYSTEM	VALUE ADDED TRAITS/OPTIONS	RELATIVE MATURITY	COB COLOR	EAR TYPE	PLANT	KERNEL TEXTURE	FIBER DIGESTIBILITY	STARCH CONTENT	STARCH	SILAGE YIELD	SILAGE QUALITY	PLANTING RATE 1000'S
NEW	LC554-23	FA	SSX RIB	105	R	SF	МТ	МН	2	2	2	1	2	28-36
	LC555-21	FA	D	105	R	FL	MT	M	2	2	2	2	1	26-38
	LC564-20	FA	CONV, PCE Refuge Advanced®	106	R	SF	M	M	3	1	2	2	2	30-38
	LC565-22	FA	PCE Refuge Advanced®	106	R	SF	т	МН	2	2	2	2	2	28-36
	LC585-22	FA	3010	108	R	FL	т	M	2	2	1	1	2	28-36
NEW	LC605-23	FA	PCE Refuge Advanced®	110	Р	FL	M	МН	2	3	1	2	2	28-36
	LC623-21	FA	D	112	R	SF	Т	M	3	3	3	2	3	30-39
	LC634-20	FA	CONV, SSX RIB	113	R	SF	MT	M	2	3	2	2	3	32-38
	LC644-22	FA	DV	114	R	FL	т	МН	2	2	2	1	3	28-36
	LC416-20 LFY	SS	CONV LEAFY, RR2 LEAFY	91	W	FL	MT	S	3	4	1	3	3	24-30
	LC-3567 LFY	SS	CONV LEAFY, RR2 LEAFY	95	w	FL	MT	S	3	3	2	3	3	24-30
	LC-3667 LFY	SS	SSX RIB LEAFY	96	R	FL	Т	MS	3	3	2	3	3	24-30
	LC-3961 LFY	SS	CONV LEAFY, RR2 LEAFY	96	w	FL	VT	S	3	3	2	1	2	24-30
	LC476-21 FF LFY	SS	FF CONV LEAFY, FF RR2 LEAFY	97	w	FL	Т	S	2	3	1	3	2	24-30
	LC506-22 LFY	SS	RR2 LEAFY	100	w	FL	т	S	2	2	1	2	2	24-30
NEW	LC516-24	SS	FF CONV LEAFY	101	w	FL	Т	S	2	2	1	2	2	24-30
	LC526-20 LFY	SS	SSX RIB LEAFY	102	w	FL	т	MS	2	2	3	2	2	24-30
	LC556-21 LFY	SS	SSX RIB LEAFY	105	Р	FL	Т	MS	2	2	2	2	2	24-30
NEW	LC556-23	SS	RR2 LEAFY	105	w	FL	т	S	2	1	1	2	2	24-30
	LC586-22 LFY	SS	RR2 LEAFY	108	w	FL	т	S	2	2	2	2	2	24-30
NEW	LC606-24	SS	SSX RIB LEAFY	110	Р	FL	Т	MS	2	1	2	1	2	24-30

PCE – PowerCore® Enlist® Refuge Advanced® corn products with HX1, VTP, ENL, LL, RR2. Contains a single-bag integrated refuge solution for above-ground insects. In EPA-designated cotton-growing counties, a 20% separate corn borer refuge must be planted with PowerCore Enlist Refuge Advanced products.

PWE – PowerCore® Enlist® corn products with HX1, VTP, ENL, LL, RR. A separate 5% corn borer refuge in the corn belt, and a separate 20% corn borer refuge in EPA-designated cotton-growing counties must be planted PowerCore Enlist products.

SILAGE QUALITY AND FORAGE CHARACTERISTICS

#### **RATING KEY**

1 =Excellent | 2 =Very Good | 3 =Good | 4 =Fair | 5 =Poor | NA =Not Available

Cob Color: R = Red | P = Pink | W = White Ear Type: FL = Flex | SF = Semi-Flex | F = Fixed Plant Height: M = Medium | MT = Medium-Tall

#### **TRAIT KEY**

VT2P RIB = VT Double PRO® RIB Complete® Corn Blend | RR2 = Roundup Ready® Corn 2 | CONV = Conventional DGVT2P RIB = DroughtGard® Hybrids with VT Double PRO® RIB Complete® Corn Blend | SSX RIB = SmartStax® RIB Complete® Corn Blend GT = Agrisure® GT | 3010 = Agrisure® 3010 | 3110 = Agrisure Viptera® 3110 | AA = Agrisure® Above

D = Duracade® | DV = DuracadeViptera™ | PCE = PowerCore® Enlist® Refuge Advanced®



Before opening a bag of seed, be sure to read, understand and accept the stewardship requirements, including applicable refuge requirements for insect resistance management, for the biotechnology traits expressed in

the seed as set forth in the Technology/Stewardship Agreement that you sign. By opening and using a bag of seed, you are reaffirming your obligation and agreement to comply with the most recent stewardship requirements.

Bayer is a member of Excellence Through Stewardship® (ETS). Bayer products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in compliance with Bayer's Policy for Commercialization of Biotechnology-Derived Plant Products in Commodity Crops. Commercialized products have been approved for import into key export markets with functioning regulatory systems. Any crop or material produced from this product can only be exported to, or used, processed or sold in countries where all applicable regulatory approvals have been granted. It is a violation of national and international law to move material containing biotech traits across boundaries into nations where import is not permitted. Growers should talk to their grain handler or product purchaser to confirm their buying position for this product. Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS.

B.t. products may not yet be registered in all states. Check with your seed brand representative for the registration status in your state.

Refuge seed may not always contain the DroughtGard® trait. IMPORTANT IRM INFORMATION: Certain products are sold as RIB Complete® corn  $blend\ products, and\ do\ not\ require\ the\ planting\ of\ a\ structured\ refuge\ except\ in\ the\ Cotton-Growing\ Area\ where\ corn\ earworm\ is\ a\ significant$ pest. Products sold without refuge in the bag (non-RIB Complete) require the planting of a structured refuge. See the IRM/Grower Guide for additional information. Always read and follow IRM requirements.

 $Roundup\ Ready ^{\circ}\ Technology\ contains\ genes\ that\ confer\ tolerance\ to\ glyphosate.\ Roundup\ Ready ^{\circ}\ 2\ Technology\ contains\ genes\ that\ confer\ tolerance\ to\ glyphosate.$ tolerance to glyphosate. Plants that are not tolerant to glyphosate may be damaged or killed if exposed to those herbicides. Insect control technology provided by Vip3A is utilized under license from Syngenta Crop Protection AG. Herculex® is a registered trademark of Dow AgroSciences LLC. Agrisure Viptera® is a registered trademark of a Syngenta group company. Respect the Refuge and Corn Design® and Respect the Refuge® are registered trademarks of National Corn Growers Association. Acceleron®, DroughtGard®, RIB Complete®, Roundup Ready 2 Technology and Design®, Roundup Ready®, SmartStax®, Trecepta®, VT Double PRO®, and VT4PRO™ are trademarks of Bayer Group





Due to the unique cropping practices do not plant Roundup Ready® Alfalfa in Imperial County, California, pending import approvals and until Forage Genetics International, LLC (FGI) grants express permission for such planting.

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Important: Always read and follow label and bag tag instructions; only those labeled as tolerant to glufosinate may be sprayed with glufosinate ammonium based herbicides. Agrisure®, Agrisure® Above, Agrisure Artesian®, Agrisure® Total, Agrisure Viptera®, Artesian®, Duracade®, DuracadeViptera™, DuracadeViptera™Z3, E-Z Refuge®, Viptera®, Viptera®Z3, E-Z Refuge® are trademarks of a Syngenta Group Company.

More information about Duracade® is available at www.biotradestatus.com.



LIBERTY Seed products with the LibertyLink® (LL) trait are resistant to the herbicide glufosinate ammonium, an alternative to glyphosate in corn, and combine high-yielding genetics with the powerful, non-selective, post-emergent weed control of Liberty® herbicide for optimum yield and excellent weed control. LibertyLink®, Liberty® and the Water Droplet logo are registered trademarks of BASF.



Corn trait technology incorporated into these seeds is commercialized under license from Syngenta Seeds, LLC. Herculex® Technology incorporated into these seeds is commercialized under license from Corteva Agriscience LLC. HERCULEX® and the HERCULEX Shield are trademarks of Corteva Agriscience LLC.

Seeds containing the PowerCore® Enlist®, PowerCore® Enlist® Refuge Advanced®, and Enlist® Corn - REFUGE traits are protected under one or  $more\ U.S.\ patents\ which\ can\ be\ found\ at:\ www.traitstewardship.com.\ The\ purchase\ of\ this\ traited\ seed\ includes\ a\ limited\ license\ to\ produce$ a single crop in the United States. The use of seed from such a crop and/or the progeny thereof for propagation or seed multiplication or for production or development of a hybrid or different variety of seed is strictly prohibited. You acknowledge and agree to be bound by the terms and conditions of the following documents in effect at the time of planting of this seed: (i) the Corteva Agriscience Technology Use Agreement and (ii) the Product Use Guides for all technologies in this seed, including the Herbicide Resistance Management (HRM), and

To plant PowerCore Enlist, PowerCore Enlist Refuge Advanced, and Enlist Corn - REFUGE seed, you must have a limited license from Corteva Agriscience (or other appropriate affiliates). In consideration of the foregoing, Corteva Agriscience grants to the Grower a limited license to use its technology to produce only a single commercial crop in the United States under the terms and conditions set forth in the Technology to produce only a single commercial crop in the United States under the terms and conditions set forth in the Technology to produce only a single commercial crop in the United States under the terms and conditions set forth in the Technology to produce only a single commercial crop in the United States under the terms and conditions set forth in the Technology to produce only a single commercial crop in the United States under the terms and conditions set forth in the Technology to produce only a single commercial crop in the United States under the terms and conditions set for the United States under the terms and conditions set for the United States under the terms and conditions set for the United States under the UUse Agreement in effect at the time of planting of this seed.

IRM - Properly managing trait technology is key to preserving it as a long term crop protection tool. Growers who fail to comply with IRM requirements risk losing access to this product. To help preserve the effectiveness of B.t. corn technologies, growers planting B.t. corn technologies are required to follow an IRM Plan. Consult the Corn Product Use Guide for appropriate refuge configuration options. Before opening a bag of seed, be sure to read, understand and accept the stewardship requirements, including applicable refuge requirements for insect resistance management, for the biotechnology traits expressed in the seed as set forth in the Technology Use Agreement and Product Use Guide. By opening and using a bag of seed, you are reaffirming your obligation to comply with the most recent stewardship requirements. For complete details on IRM requirements for hybrids with Bt technology, including refuge examples and important information on the use of insecticides on refuge and Bt corn acres, please consult appropriate Product Use Guide, Go to www.corteva.us/ Resources/trait-stewardship.html to download the latest Corteva Agriscience Corn Product Use Guide.

Corteva Agriscience is a member of Excellence Through Stewardship® (ETS). Corteva Agriscience products are commercialized in accordance with ETS Product Launch Stewardship Guidance and in compliance with the Corteva Agriscience policies regarding stewardship of those products. In line with these quidelines, Corteva Agriscience's product launch process for responsible launches of new products includes a long-standing process to evaluate export market information, value chain consultations, and regulatory functionality. Growers and endusers must take all steps within their control to follow appropriate stewardship requirements and confirm their buyer's acceptance of the grain or other material being purchased. For more detailed information on the status of a trait or stack, please visit www.biotradestatus.com. Following burndown, Enlist Duo® and Enlist One® herbicides with Colex-D® technology are the only herbicides containing 2,4-D that are authorized for preemergence and postemergence use with Enlist® corn and soybeans. Consult Enlist® herbicide labels for weed species controlled. Enlist Duo and Enlist One herbicides are not registered for use or sale in all states and counties; are not registered in AK, CA, CT, HI, ID, MA, ME, MT, NH, NV, OR, RI, UT, VT, WA and WY; and have additional subcounty restrictions in AL, GA, TN and TX, while existing county restrictions still remain in FL. All users must check "Bulletins Live! Two" no earlier than six months before using Enlist One or Enlist Duo. To obtain "Bulletins," consult epa.gov/espp/, call 1-844-447-3813, or email ESPP@epa.gov. You must use the "Bulletin" valid for the month and state and county in which Enlist One or Enlist Duo are being applied. Contact your state pesticide regulatory agency if you have questions about the registration status of Enlist® herbicides in your area. ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. IT IS A VIOLATION OF FEDERAL AND STATE LAW TO USE ANY PESTICIDE PRODUCT OTHER THAN IN ACCORDANCE WITH ITS LABELING. ONLY USE FORMULATIONS THAT ARE SPECIFICALLY LABELED FOR SUCH USE IN THE STATE OF APPLICATION. USE OF PESTICIDE PRODUCTS. INCLUDING, WITHOUT LIMITATION, 2,4-D-CONTAINING PRODUCTS NOT AUTHORIZED FOR USE WITH ENLIST CORN AND SOYBEANS, MAY RESULT IN OFF-TARGET DAMAGE TO SENSITIVE CROPS/AREAS AND/OR SUSCEPTIBLE PLANTS, IN ADDITION TO CIVIL AND/OR CRIMINAL PENALTIES. Additional product-specific stewardship requirements for Enlist crops, including the Enlist Product Use Guide, can be found at www.traitstewardship.com

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Important: Always read and follow label instructions. Some products may not be registered for sale or use in all states or counties. Please check with your local extension service to ensure registration status.

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