



DAHLMAN[®]

PREMIUM SEED | PERFORMANCE PROVEN

Celebrating 100 Years



2022 PRODUCT GUIDE

CORN | SOYBEANS | ALFALFA | WHEAT





Dahlman Seed has been an **INDEPENDENT, FAMILY owned** and operated Seed Company since 1922. We are very proud to be **CELEBRATING 100 YEARS** of providing farmers with the highest quality corn, soybean and alfalfa products in 2022! We provide expert advice and high grower satisfaction to customers year after year. Our Dahlman Seed mission is to provide **PREMIUM SEED/PERFORMANCE PROVEN** products and the best technology choices to farmers in the upper Midwest.

The Dahlman Seed Team understands the significance of standing behind every unit of seed we sell because we know your seed decision is one of the most important decisions you will make each year. We don't take this decision lightly, and know there isn't room for compromise when you choose a seed partner. **Dahlman Seed is your Trusted Partner** and our local experts' can help you find **PROVEN** products for your farm that will help you reach your goals!

Our products have **PROVEN** to perform consistently at high levels year after year. This makes us extremely excited to present our 2022 product line-ups. We are offering **35 corn hybrids with SEVEN of these being new**. Our robust soybean line-up is anchored by **7 high performing Roundup Ready 2 Xtend® soybean varieties, SIX NEW XtendFlex® varieties!** And **14 Enlist E3® soybean varieties with FIVE being new**.

We take the responsibility of **PREMIUM SEED/ PERFORMANCE PROVEN** very seriously because we know buying the right seed for your farm is one of the most important decisions you make each year. **Dahlman Seed is your Trusted Partner.**

Sincerely,
The Dahlman Seed Team

Table of Contents

Welcome/Introduction.....	2-3	Dahlman Roundup Ready® Alfalfa and 2022 Characteristics	24
Dahlman Corn Brands and 2022 Characteristics	4-13	Dahlman Conventional Alfalfa, Wheat and 2022 Characteristics	25-26
Dahlman Soybean Brands 2022 Characteristics	14-23	Corn Insect B.t. Trait Reference Tables	27-29
XtendFlex®	14, 16-17	Dahlman Corn Brands 2022 Reference Chart	30
Roundup Ready 2 Xtend®	14-17	Trademarks and Registrations.....	31
Enlist E3®	20-23		



Premium Seed

High quality seed is who we are. The knowledge of how to plant and harvest at just the right time and develop and preserve a healthy soil has been passed on from one Dahlman generation to the next. This is a major reason Very High Quality seed always goes into a Dahlman Seed bag. You can trust that 100 years of experience and integrity go into every bag of Dahlman Seed.



Performance Proven

Consistent performing products. Dahlman seed has worked hard to bring forward the best technology and genetics for the farmers in the upper Midwest for many years. In order to identify consistent performing genetics for our market area, we personally observe plots multiple years over a wide range of environments. Field observation notes taken during a season are evaluated in conjunction with yield data to make the final decision to commercialize into the Dahlman Seed product portfolio.



Expert Knowledge

Dahlman Seed is your Trusted Partner. We work hard on building relationships because maximizing yield starts with educated recommendations. Our local experts have years of experience gaining the knowledge needed to adapt to the constantly changing Ag industry. We use that knowledge and get to know your fields and farming practices so we can provide the correct recommendation of the best technology and genetics for your farm so you can reach your goals.

CORN PRODUCTS

Dahlman Brand	Relative Maturity	GDUs to Mid-Silk	GDUs to Black Layer	Population Tolerance	Emergence	Early Vigor	Root Strength	Stalk Strength	Drought Tolerance
R41-22VT2PRIB	82	1110	2040	30-36	8.5	9.0	8.0	8.0	8.0
R41-23VT2PRIB	82	1100	2030	30-34	8.5	8.5	8.0	8.0	8.0
R42-28VT2PRIB	85	1145	2100	30-36	8.0	8.5	8.0	8.0	8.5
R43-29VT2PRIB	85	1155	2125	30-34	8.0	8.5	7.5	8.0	7.0
R43-19	85	1155	2125	30-34	8.0	8.5	7.5	8.0	7.0
D43-01	85	1155	2125	30-34	8.0	8.5	7.5	8.0	7.0
R43-24VT2PRIB	86	1160	2225	30-34	8.5	9.0	7.0	8.5	8.5

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

R41-22VT2PRIB 82 RM

Medium-Tall Plant Height | 2040 GDU to Black Layer

Strengths

- › Adapts to varying soils and environments
- › Excellent early season vigor for the northern cornbelt
- › Very good test weight
- › Solid overall disease tolerance
- › **RIB COMPLETE® - 5% refuge in the bag**



R41-23VT2PRIB 82 RM

Medium-Tall Plant Height | 2030 GDU to Black Layer

Strengths

- › Best kept in 80-85 day RM zone
- › Position on average to better soils
- › Strong drought and heat stress tolerance
- › Open husks allowing for rapid drydown
- › **RIB COMPLETE® - 5% refuge in the bag**



R42-28VT2PRIB 85 RM

Medium Plant Height | 2100 GDU to Black Layer

Strengths

- › Adapts to varying soils and environments
- › Great Goss's Wilt rating
- › Very good drought stress tolerance
- › Strong overall agronomics plus excellent stability
- › **RIB COMPLETE® - 5% refuge in the bag**



R43-29VT2PRIB 85 RM

Medium-Tall Plant Height | 2125 GDU to Black Layer

Strengths

- › Excellent emergence and early season vigor
- › Good choice for reduced tillage
- › Adapts to varying soils and environments
- › Very girthy ear type
- › **RIB COMPLETE® - 5% refuge in the bag**



Plant Height	Ear Type	Plant Health	Goss's Wilt	Fall Appearance	Drydown	Ear Retention	Test Weight	Corn Belt Refuge Requirement	Dahlman Brand
MT	SF	8.0	7.0	7.5	8.0	8.5	8.5	RIB	R41-22VT2PRIB
MT	SD	8.0	5.0	7.5	8.5	8.5	8.0	RIB	R41-23VT2PRIB
M	SF	8.5	7.0	7.0	7.0	8.0	7.5	RIB	R42-28VT2PRIB
MT	SD	8.5	5.5	7.5	8.5	8.0	7.0	RIB	R43-29VT2PRIB
MT	SD	8.5	5.5	7.5	8.5	8.0	7.0		R43-19
MT	SD	8.5	5.5	7.5	8.5	8.0	7.0		D43-01
MT	SF	7.0	5.0	6.5	8.0	7.5	7.0	RIB	R43-24VT2PRIB

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

R43-19 85 RM

Medium-Tall Plant Height | 2125 GDU to Black Layer

Strengths

- › Excellent emergence and early season vigor
- › Good choice for reduced tillage
- › Adapts to varying soils and environments
- › Very girthy ear type
- › Medium tall plant with strong stalks



D43-01 85 RM

Medium-Tall Plant Height | 2125 GDU to Black Layer

Strengths

- › Excellent emergence and early season vigor
- › Good choice for reduced tillage
- › Adapts to varying soils and environments
- › Very girthy ear type
- › Medium tall plant with strong stalks

CONVENTIONAL

R43-24VT2PRIB 86 RM

Medium-Tall Plant Height | 2225 GDU to Black Layer

Strengths

- › Strong yield performance across environments
- › Outstanding early season vigor
- › Excellent stress tolerance and stalk strength
- › Strong disease tolerance package
- › **RIB COMPLETE® - 5% refuge in the bag**



Dahlman Brand	Relative Maturity	GDUs to Mid-Silk	GDUs to Black Layer	Population Tolerance	Emergence	Early Vigor	Root Strength	Stalk Strength	Drought Tolerance
R45-25VT2PRIB	90	1160	2240	32-36	8.0	8.5	8.5	8.5	7.5
R45-28VT2PRIB	90	1225	2240	30-34	8.0	8.0	8.0	7.0	8.0
R45-12	90	1225	2240	30-34	8.0	8.0	8.0	7.0	8.0
R46-27VT2PRIB	92	1240	2305	32-36	8.0	8.5	8.5	8.5	8.5
R46-14	92	1240	2305	32-36	8.0	8.5	8.5	8.5	8.5
D46-04	92	1240	2305	32-36	8.0	8.5	8.5	8.5	8.5
NEW! R46-313SSRIB	94	1235	2315	30-34	8.5	8.5	9.0	8.0	8.5
R47-24VT2PRIB	94	1220	2250	32-36	8.5	8.5	8.0	7.5	8.0

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

R45-25VT2PRIB 90 RM

Medium Plant Height | 2240 GDU to Black Layer

Strengths

- › Great choice for cold soils, superior emergence and early vigor
- › Excellent disease package
- › Prefers med-high to high plant populations
- › Very strong Goss's Wilt tolerance
- › **RIB COMPLETE[®] - 5% refuge in the bag**



R45-28VT2PRIB 90 RM

Medium-Tall Plant Height | 2240 GDU to Black Layer

Strengths

- › Good ear flex and grain drydown
- › Overall solid disease package
- › Excellent on clay soils plus good stress tolerance
- › Very strong Goss's Wilt tolerance
- › **RIB COMPLETE[®] - 5% refuge in the bag**



R45-12 90 RM

Medium-Tall Plant Height | 2240 GDU to Black Layer

Strengths

- › Good ear flex and grain drydown
- › Overall solid disease package
- › Excellent on clay soils plus good stress tolerance
- › Very strong Goss's Wilt tolerance



R46-27VT2PRIB 92 RM

Medium-Tall Plant Height | 2305 GDU to Black Layer

Strengths

- › Consistent performance across many soils
- › Very strong early season vigor
- › Best in adapted RM zone with good southern movement
- › Good drought tolerance
- › **RIB COMPLETE[®] - 5% refuge in the bag**



Plant Height	Ear Type	Plant Health	Goss's Wilt	Fall Appearance	Drydown	Ear Retention	Test Weight	Corn Belt Refuge Requirement	Dahlman Brand
M	SF	8.5	8.5	8.0	7.0	9.0	7.0	RIB	R45-25VT2PRIB
MT	SF	8.5	8.0	7.5	8.0	9.0	7.0	RIB	R45-28VT2PRIB
MT	SF	8.5	8.0	7.5	8.0	9.0	7.0		R45-12
MT	SF	7.5	6.0	8.0	7.0	8.5	7.0	RIB	R46-27VT2PRIB
MT	SF	7.5	6.0	8.0	7.0	8.5	7.0		R46-14
MT	SF	7.5	6.0	8.0	7.0	8.5	7.0		D46-04
MT	SF	8.0	8.0	8.0	8.5	8.0	7.0	RIB	R46-313SSRIB <small>NEW</small>
MT	SF	7.5	6.0	8.0	8.0	8.5	7.0	RIB	R47-24VT2PRIB

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

R46-14

92 RM

Medium-Tall Plant Height | 2305 GDU to Black Layer

Strengths

- › Consistent performance across many soils
- › Very strong early season vigor
- › Best in adapted RM zone with good southern movement
- › Good drought tolerance



D46-04

92 RM

Medium-Tall Plant Height | 2305 GDU to Black Layer

Strengths

- › Consistent performance across many soils
- › Very strong early season vigor
- › Best in adapted RM zone with good southern movement
- › Good drought tolerance

CONVENTIONAL

R46-313SSRIB

94 RM NEW!

Medium-Tall Plant Height | 2315 GDU to Black Layer

Strengths

- › Solid root and stalk strength
- › Good choice for cold soils and minimum tillage
- › Excellent stay green and a season long healthy appearance
- › Very strong Goss's Wilt tolerance
- › **RIB COMPLETE® - 5% refuge in the bag**



R47-24VT2PRIB

94 RM

Medium-Tall Plant Height | 2250 GDU to Black Layer

Strengths

- › Can position as a full season hybrid
- › Adapts to most soils and yield environments
- › Solid agronomics with quick drydown
- › Good choice for high management practices
- › **RIB COMPLETE® - 5% refuge in the bag**



Dahlman Brand	Relative Maturity	GDUs to Mid-Silk	GDUs to Black Layer	Population Tolerance	Emergence	Early Vigor	Root Strength	Stalk Strength	Drought Tolerance
R47-26VT2PRIB	94	1210	2235	30-34	8.0	8.0	8.5	7.5	7.5
R48-28VT2PRIB	95	1250	2340	30-34	8.5	9.0	9.0	8.5	8.5
D48-04	95	1250	2340	30-34	8.5	9.0	9.0	8.5	8.5
R48-21VT2PRIB	96	1250	2340	30-34	8.5	9.0	8.5	8.0	7.0
R47-10	94	1230	2340	32-36	7.5	7.5	9.0	7.5	8.5
D48-08	96	1230	2340	32-36	7.5	7.5	9.0	7.5	8.5
R49-25VT2PRIB	98	1225	2400	30-34	8.5	8.5	8.5	8.0	8.0
D49-02	98	1225	2400	30-34	8.5	8.5	8.5	8.0	8.0

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

R47-26VT2PRIB 94 RM

Medium Plant Height | 2235 GDU to Black Layer

Strengths

- › Good western movement but adapts from Dakotas to Wisconsin
- › Excellent stay green and late season intactness
- › Solid agronomics plus very good grain drydown
- › Good choice for well drained soils
- › **RIB COMPLETE[®] - 5% refuge in the bag**



R48-28VT2PRIB 95 RM

Medium Plant Height | 2340 GDU to Black Layer

Strengths

- › Strong drought tolerant and versatile hybrid
- › Adapts to most soils across our market area
- › Good choice for cold soils and minimum tillage
- › Excellent late season intactness and standability
- › **RIB COMPLETE[®] - 5% refuge in the bag**



D48-04 95 RM

Medium Plant Height | 2340 GDU to Black Layer

Strengths

- › Strong drought tolerant and versatile hybrid
- › Adapts to most soils across our market area
- › Good choice for cold soils and minimum tillage
- › Excellent late season intactness and standability
- › Very good Goss's Wilt tolerance

CONVENTIONAL

R48-21VT2PRIB 96 RM

Medium Plant Height | 2340 GDU to Black Layer

Strengths

- › Top end yield across a very large area of adaptation
- › Semi flex ear that can be positioned on tough ground
- › Good choice for cold soils and minimum tillage
- › Very good test weight
- › **RIB COMPLETE[®] - 5% refuge in the bag**



Plant Height	Ear Type	Plant Health	Goss's Wilt	Fall Appearance	Drydown	Ear Retention	Test Weight	Corn Belt Refuge Requirement	Dahlman Brand
M	SF	8.0	8.0	8.0	8.0	8.5	8.5	RIB	R47-26VT2PRIB
M	SF	8.0	6.5	8.5	7.5	8.5	8.5	RIB	R48-28VT2PRIB
M	SF	8.0	6.5	8.5	7.5	8.5	8.5		D48-04
M	SF	7.0	4.5	7.5	8.0	8.0	9.0	RIB	R48-21VT2PRIB
M	SD	8.0	8.0	8.5	7.0	9.0	8.5		R47-10
M	SD	8.0	8.0	8.5	7.0	9.0	8.5		D48-08
M	SF	8.5	8.0	8.5	7.5	8.0	8.5	RIB	R49-25VT2PRIB
M	SF	8.5	8.0	8.5	7.5	8.0	8.5		D49-02

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

R47-10

94 RM

Medium Plant Height | 2340 GDU to Black Layer

Strengths

- › Excellent grain quality and test weight
- › Outstanding root and stalk strength
- › Good Goss's Wilt tolerance
- › Plant at medium high populations
- › Good choice on stress prone acres



D48-08

96 RM

Medium Plant Height | 2340 GDU to Black Layer

Strengths

- › Excellent grain quality and test weight
- › Outstanding root and stalk strength
- › Good Goss's Wilt tolerance
- › Plant at medium high populations
- › Good choice on stress prone acres

CONVENTIONAL

R49-25VT2PRIB 98 RM

Medium Plant Height | 2400 GDU to Black Layer

Strengths

- › Adapts to medium and high yield environments
- › Excellent late season intactness
- › Overall solid agronomic and disease package
- › Very good Goss's Wilt tolerance
- › **RIB COMPLETE® - 5% refuge in the bag**



D49-02

98 RM

Medium Plant Height | 2400 GDU to Black Layer

Strengths

- › Adapts to medium and high yield environments
- › Excellent late season intactness
- › Overall solid agronomic and disease package
- › Very good Goss's Wilt tolerance

CONVENTIONAL

Dahlman Brand	Relative Maturity	GDUs to Mid-Silk	GDUs to Black Layer	Population Tolerance	Emergence	Early Vigor	Root Strength	Stalk Strength	Drought Tolerance
NEW! R49-340SSRIB	98	1240	2400	32-36	8.5	8.5	8.5	8.5	8.5
NEW! R49-29VT2PRIB	98	1230	2425	32-36	8.5	8.5	8.0	8.0	8.5
R49-23VT2PRIB	98	1210	2420	32-36	8.5	8.5	8.5	8.0	8.0
D49-09	98	1210	2420	32-36	8.5	8.5	8.5	8.0	8.0
NEW! R50-355SSRIB	100	1260	2495	30-34	8.0	8.0	8.5	8.5	8.0
NEW! R50-25VT2PRIB	100	1260	2495	30-34	8.0	8.0	8.5	8.5	8.0
R52-24VT2PRIB	103	1280	2440	30-34	8.5	9.0	8.5	8.5	8.0
R52-14	103	1280	2440	30-34	8.5	9.0	8.5	8.5	8.0

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

R49-340SSRIB 98 RM **NEW!**

Medium-Tall Plant Height | 2400 GDU to Black Layer

Strengths

- › Thrives in all yield environments
- › Plant medium to medium high populations
- › Excellent stay green and fall intactness
- › Solid overall disease package with very good drought tolerance
- › **RIB COMPLETE[®] - 5% refuge in the bag**

SmartStax[®]
RIB COMPLETE

R49-29VT2PRIB 98 RM **NEW!**

Medium Plant Height | 2425 GDU to Black Layer

Strengths

- › Adapts to all yield environments
- › Exceptional fall appearance and staygreen
- › Position west to east
- › Very good Goss's Wilt tolerance
- › **RIB COMPLETE[®] - 5% refuge in the bag**

VTDoublePRO[®]
RIB COMPLETE

R49-23VT2PRIB 98 RM

Medium Plant Height | 2420 GDU to Black Layer

Strengths

- › Outstanding yield potential plus quick drydown
- › Consistent ear size that shows nice girth
- › Excellent late season intactness
- › Very early flowering 98 day hybrid
- › **RIB COMPLETE[®] - 5% refuge in the bag**

VTDoublePRO[®]
RIB COMPLETE

D49-09 98 RM

Medium Plant Height | 2420 GDU to Black Layer

Strengths

- › Outstanding yield potential plus quick drydown
- › Consistent ear size that shows nice girth
- › Excellent late season intactness
- › Very early flowering 98 day hybrid
- › Fast emergence and excellent early season vigor

CONVENTIONAL

Plant Height	Ear Type	Plant Health	Goss's Wilt	Fall Appearance	Drydown	Ear Retention	Test Weight	Corn Belt Refuge Requirement	Dahlman Brand
MT	SF	8.5	7.5	8.5	8.5	8.5	8.5	RIB	R49-340SSRIB <small>NEW!</small>
M	SF	8.0	8.0	9.0	7.0	8.5	7.0	RIB	R49-29VT2PRIB <small>NEW!</small>
M	SD	7.0	4.5	9.0	8.5	8.0	7.0	RIB	R49-23VT2PRIB
M	SD	7.0	4.5	9.0	8.5	8.0	7.0		D49-09
MT	SF	7.5	7.5	7.0	7.5	8.0	7.0	RIB	R50-355SSRIB <small>NEW!</small>
MT	SF	7.5	7.5	7.0	7.5	8.0	7.0	RIB	R50-25VT2PRIB <small>NEW!</small>
MT	SF	8.0	8.0	8.0	7.5	8.5	7.0	RIB	R52-24VT2PRIB
MT	SF	8.0	8.0	8.0	7.5	8.5	7.0		R52-14

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

R50-355SSRIB 100 RM NEW!

Medium-Tall Plant Height | 2495 GDU to Black Layer

Strengths

- › Strong yield potential with very good ear flex
- › Position on average to better soils
- › Plant medium populations
- › Very good stalk and root strength
- › **RIB COMPLETE® - 5% refuge in the bag**



R50-25VT2PRIB 100 RM NEW!

Medium-Tall Plant Height | 2495 GDU to Black Layer

Strengths

- › Strong yield potential with very good ear flex
- › Position on average to better soils
- › Plant medium populations
- › Very good stalk and root strength
- › **RIB COMPLETE® - 5% refuge in the bag**



R52-24VT2PRIB 103 RM

Medium-Tall Plant Height | 2440 GDU to Black Layer

Strengths

- › Widely adapted across environments and soil types
- › Overall solid agronomic package
- › Excellent early season vigor good for cold soils
- › Good Goss's Wilt tolerance
- › **RIB COMPLETE® - 5% refuge in the bag**



R52-14 103 RM

Medium-Tall Plant Height | 2440 GDU to Black Layer

Strengths

- › Widely adapted across environments and soil types
- › Overall solid agronomic package
- › Excellent early season vigor good for cold soils
- › Good Goss's Wilt tolerance



Dahlman Brand	Relative Maturity	GDU's to Mid-Silk	GDU's to Black Layer	Population Tolerance	Emergence	Early Vigor	Root Strength	Stalk Strength	Drought Tolerance
D52-04	103	1280	2440	30-34	8.5	9.0	8.5	8.5	8.0
NEW! R52-26VT2PRIB	104	1290	2570	30-34	8.5	9.0	8.5	8.5	8.5
R53-359SSRIB	106	1240	2480	32-36	7.5	8.0	8.5	8.5	8.5
NEW! R53-350SSRIB	106	1280	2580	32-36	8.0	8.0	8.5	8.5	8.5

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

D52-04 103 RM

Medium-Tall Plant Height | 2440 GDU to Black Layer

Strengths

- › Widely adapted across environments and soil types
- › Overall solid agronomic package
- › Excellent early season vigor good for cold soils
- › Good Goss's Wilt tolerance

CONVENTIONAL

R52-26VT2PRIB 104 RM **NEW!**

Medium Plant Height | 2570 GDU to Black Layer

Strengths

- › Thrives in all yield environments and soil types
- › Plant medium populations
- › Excellent early season vigor and grain drydown
- › Excellent Goss's Wilt tolerance
- › **RIB COMPLETE[®] - 5% refuge in the bag**

VT DoublePRO[®]
RIB COMPLETE

R53-359SSRIB 106 RM

Medium Plant Height | 2480 GDU to Black Layer

Strengths

- › Adapts to all yield environments
- › Excellent Goss's Wilt tolerance
- › Very good drought tolerance and late season intactness
- › Outstanding early season vigor and test weight
- › **RIB COMPLETE[®] - 5% refuge in the bag**

SmartStax[®]
RIB COMPLETE

R53-350SSRIB 106 RM **NEW!**

Medium-Tall Plant Height | 2580 GDU to Black Layer

Strengths

- › Consistent performance year after year
- › Strong overall disease package
- › Very good Goss's Wilt tolerance
- › Very good drought tolerance and grain drydown
- › Outstanding stalk and root strength
- › **RIB COMPLETE[®] - 5% refuge in the bag**

SmartStax[®]
RIB COMPLETE

Plant Height	Ear Type	Plant Health	Goss's Wilt	Fall Appearance	Drydown	Ear Retention	Test Weight	Corn Belt Refuge Requirement	Dahlman Brand
MT	SF	8.0	8.0	8.0	7.5	8.5	7.0		D52-04
M	SF	8.5	8.5	8.5	8.5	8.5	7.0	RIB	R52-26VT2PRIB <small>NEW!</small>
M	SF	8.5	8.5	8.5	8.0	8.5	8.5	RIB	R53-359SSRIB
MT	SF	8.0	8.0	8.0	8.5	8.5	7.0	RIB	R53-350SSRIB <small>NEW!</small>

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

SmartStax[®]
TECHNOLOGY

**YIELD
GOES BACK TO
YOUR
ROOTS**

**Don't leave the foundation
of your yield defenseless
against corn rootworm.**

See the benefits that farmers are experiencing at Traits.Bayer.com/Yield

SMARTSTAX[®] TECHNOLOGY: PROVEN ON
OVER 140 MILLION ACRES.*

Performance may vary from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields. Always read and follow IRM, grain marketing and all other stewardship practices and pesticide label directions for Corn-Growing Areas. Details of these practices can be found in the Trait Stewardship Responsibilities Notice to Farmers printed in this publication. © 2020 Bayer Group All Rights Reserved symbol 100001

*Based on internal Bayer sales data (owned and licensee brands) from 2010-2020 of bags sold multiplied by the industry average of 2.7 acres per bag.

SOYBEAN PRODUCTS

Dahlman Brand	Maturity	Plant Height	Plant Type	Iron Chlorosis	Emergence	Min-Till Adaptability	Stress Tolerance	Stability
68008XN	0.08	MT	MTh	8.0	8.5	8.5	8.5	7.0
NEW! 7201XF	0.1	MT	M/B	7.0	8.5	8.5	7.5	7.0
NEW! 7203XF	0.3	MT	M/B	8.0	8.5	8.5	8.0	7.0
6903XN	0.3	MT	M/B	8.5	8.0	7.5	8.5	7.0
6703XN	0.3	M	M	7.0	8.5	9.0	8.5	8.5
6004XN	0.4	M	M/B	8.0	8.5	7.0	7.0	7.0

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

68008XN

0.08

Medium-Tall Plant Height | Medium-Thin Plant Type

Strengths

- › BEST in class IDC
- › Very solid SWM tolerance
- › Brown Stem Rot resistant
- › Great choice for continuous soybeans or min-till
- › Rps 1k gene for multi-race Phytophthora

› SCN Tolerance



7201XF

0.1 **NEW!**

Medium-Tall Plant Height | Medium-Bush Plant Type

Strengths

- › Aggressive lateral branching
- › Very good stress tolerance
- › Moderate resistance to Brown Stem Rot
- › Rps 1k gene for multi-race Phytophthora
- › **SCN Tolerance**



7203XF

0.3 **NEW!**

Medium-Tall Plant Height | Medium-Bush Plant Type

Strengths

- › Adapts well to variable soil types
- › Excellent IDC tolerance
- › Brown Stem Rot resistant
- › Rps 1c gene for multi-race Phytophthora



6903XN

0.3

Medium-Tall Plant Height | Medium-Bush Plant Type

Strengths

- › Excellent IDC tolerance
- › Adapts to most environments in ND & Northern MN
- › Outstanding stress tolerance
- › Rps 1c gene for multi-race Phytophthora
- › Very consistent top performing variety

› SCN Tolerance



Soybean Cyst Nematode Race	Phytophthora Gene	Phytophthora Field Tolerance	Brown Stem Rot	White Mold	Sudden Death Syndrome	Charcoal Root Rot	Dahlman Brand
R3, MR14	Rps 1k	7.0	9.0	7.0	NA	8.0	68008XN
R3, MR14	Rps 1k	6.5	7.0	5.0	NA	NA	7201XF <small>NEW!</small>
S	Rps 1c	6.5	9.0	7.0	NA	NA	7203XF <small>NEW!</small>
R3, MR14	Rps 1c	8.0	6.5	7.0	NA	8.5	6903XN
R3, MR14	Rps 3a	8.5	6.5	7.0	NA	7.0	6703XN
MR3, MR14	Rps H1c	7.0	6.5	5.5	NA	8.0	6004XN

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

6703XN

0.3

Medium Plant Height | Medium Plant Type

Strengths

- › Overall very solid agronomics
- › Adapts to variable soil types and environments
- › Rps 3a gene for multi-race Phytophthora
- › Outstanding emergence and stress tolerance
- › Excellent standability

› SCN Tolerance



6004XN

0.4

Medium Plant Height | Medium-Bush Plant Type

Strengths

- › Very good IDC tolerance
- › Adapts to high & low yield environments, west to east
- › Excellent emergence and cold soil tolerance
- › Rps H1c gene for multi-race Phytophthora
- › Great companion variety for 6903XN

› SCN Tolerance



You want high-yielding performance. You also need innovative options for managing tough weeds. XtendFlex® soybeans offer proven performance and herbicide tolerance to dicamba, glyphosate and glufosinate.

YIELD

TRIPLE TOLERANCE

WEED CONTROL



Dahlman Brand	Maturity	Plant Height	Plant Type	Iron Chlorosis	Emergence	Min-Till Adaptability	Stress Tolerance	Standability
6010XN	1.0	M	M	8.0	8.0	8.0	7.0	8.0
NEW! 7210XF	1.0	MT	M/B	7.0	8.5	8.0	7.5	7.5
NEW! 7213XF	1.3	MT	M/B	6.5	8.0	7.5	7.0	7.0
6015XN	1.5	MT	M	6.5	8.5	8.0	8.5	7.5
6815XN	1.5	M	M	7.0	8.5	9.0	8.5	7.0
NEW! 7218XF	1.8	MT	M	6.0	8.5	8.0	7.0	7.5
NEW! 7220XF	2.0	MT	M/B	7.0	8.0	7.5	7.5	7.0

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

6010XN

1.0

Medium Plant Height | Medium Plant Type

Strengths

- › Dominate yield potential
- › Brown Stem Rot resistant
- › Excellent emergence and standability
- › Strong Phytophthora Root Rot field tolerance
- › Solid IDC tolerance

› SCN Tolerance



7210XF

1.0 **NEW!**

Medium-Tall Plant Height | Medium-Bush Plant Type

Strengths

- › Adapts to varying environments
- › Aggressive lateral branches
- › Moderate resistance to Brown Stem Rot
- › Rps H3a gene for multi-race Phytophthora

› SCN Tolerance



7213XF

1.3 **NEW!**

Medium-Tall Plant Height | Medium-Bush Plant Type

Strengths

- › Strong performance west to east
- › Solid overall disease and agronomic package
- › Moderate resistance to Brown Stem Rot
- › Rps 1c gene for multi-race Phytophthora

› SCN Tolerance



6015XN

1.5

Medium-Tall Plant Height | Medium Plant Type

Strengths

- › Consistent performance from SD to WI
- › Excellent stress tolerance and emergence
- › Brown Stem Rot resistant
- › Rps 1c gene for multi-race Phytophthora

› SCN Tolerance



Soybean Cyst Nematode Race	Phytophthora Gene	Phytophthora Field Tolerance	Brown Stem Rot	White Mold	Sudden Death Syndrome	Charcoal Root Rot	Dahlman Brand
R3, MR14	NG	8.0	9.0	7.5	NA	8.0	6010XN
R3, MR14	Rps H3a	7.0	8.5	6.5	NA	6.5	7210XF <small>NEW!</small>
R3, MR14	Rps 1c	7.5	8.0	6.0	6.0	NA	7213XF <small>NEW!</small>
R3, MR14	Rps 1c	6.5	9.0	7.0	6.0	8.0	6015XN
R3, MR14	Rps 1c	7.0	8.5	6.5	7.5	8.0	6815XN
R3, MR14	NG	6.5	9.0	5.5	6.5	6.5	7218XF <small>NEW!</small>
R3, MR14	Rps 3a	7.0	8.5	5.5	6.0	NA	7220XF <small>NEW!</small>

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

6815XN

1.5

Medium Plant Height | Medium Plant Type

Strengths

- › Consistent performance from SD to WI
- › Excellent stress tolerance and emergence
- › Good northern movement
- › Moderate resistance to Brown Stem Rot
- › Rps 1c gene for multi-race Phytophthora

› SCN Tolerance



7218XF

1.8 NEW!

Medium-Tall Plant Height | Medium Plant Type

Strengths

- › Adapts to all yield environments
 - › Aggressive lateral branching
 - › Brown Stem Rot resistance
 - › High yield potential with a large range of adaptability
- › **SCN Tolerance**



7220XF

2.0 NEW!

Medium-Tall Plant Height | Medium Plant Type

Strengths

- › Solid agronomics, high yield potential
- › Very good IDC tolerance
- › Moderate resistance to Brown Stem Rot
- › Rps 3a gene for multi-race Phytophthora

› SCN Tolerance







Verification Required The last patent on the original Roundup Ready® soybean trait expired a few years ago and U.S. farmers may legally plant saved seed from some varieties of soybean containing the Roundup Ready® soybean trait. However, it is important that you check with your seed supplier to determine if a specific Roundup Ready® soybean variety is covered by other intellectual property rights, and if so, the policy for saving seed of that variety.

Higher Seeding Rate A higher seeding rate may be required for bin-run Roundup Ready® soybeans compared to new branded seed.

Yield Loss Roundup Ready 2 Yield®, Roundup Ready 2 Xtend® and XtendFlex® soybean varieties typically have a higher yield opportunity than Roundup Ready® soybean varieties.

Cleanout Loss Loss of seed and/or shrink occurs during the seed cleaning and handling processes for bin-run seed.

Seed Treatment Costs Treating your seed will add costs—both the cost of the treatment and the application of that treatment.

Lost Income Every bushel of saved seed you plant is a bushel you're not selling as commodity grain.

Increased Seed Management If you plan to save and bin-run Roundup Ready® soybeans for planting, you will have to manage your harvest operations and grain storage so that the seed isn't co-mingled with other seed that's covered by intellectual property rights.

High Value of New Branded Seed

Latest Technology

- // High-yielding soybean technologies
- // Better variety options
- // Leading seed treatment options

Customer Service

- // Dealer agronomic support before and after the sale
- // Replant policy support
- // Convenient packaging and delivery

Reliable Germination and Quality

- // Rigorously tested and meets U.S. Federal Seed Act requirements
- // Free of seed-borne diseases
- // Properly stored and conditioned



For more information on seed intellectual property protection, or to anonymously report a tip, please call 1-866-99-BAYER. For a list of relevant patents visit www.monsantotechnology.com

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 necessary 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. It is a violation of federal and state law to use any pesticide product other than in accordance with its labeling. NOT ALL formulations of dicamba or glyphosate are approved for in-crop use with Roundup Ready 2 Xtend® soybeans. NOT ALL formulations of dicamba, glyphosate or glufosinate are approved for in-crop use with products with XtendFlex® Technology. ONLY USE FORMULATIONS THAT ARE SPECIFICALLY LABELED FOR SUCH USES AND APPROVED FOR SUCH USE IN THE STATE OF APPLICATION. Contact the U.S. EPA and your state pesticide regulatory agency with any questions about the approval status of dicamba herbicide products for in-crop use with Roundup Ready 2 Xtend® soybeans or products with XtendFlex® Technology.

Roundup Ready® Technology contains genes that confer tolerance to glyphosate. Roundup Ready 2 Technology contains genes that confer tolerance to glyphosate. Roundup Ready 2 Xtend® soybeans contain genes that confer tolerance to glyphosate and dicamba. Products with XtendFlex® Technology contain genes that confer tolerance to glyphosate, glufosinate and dicamba. Glyphosate will kill crops that are not tolerant to glyphosate. Dicamba will kill crops that are not tolerant to dicamba. Glufosinate will kill crops that are not tolerant to glufosinate. Contact your seed brand dealer or refer to the Bayer Technology Use Guide for recommended weed control programs.

Bayer, Bayer Cross, Roundup Ready 2 Xtend®, Roundup Ready 2 Yield®, Roundup Ready®, Roundup® and XtendFlex® are registered trademarks of Bayer Group. ©2020 Bayer Group. All rights reserved.

Dahlman Brand	Maturity	Plant Height	Plant Type	Iron Chlorosis	Emergence	Min-Till Adaptability	Stress Tolerance	Standability
NEW! 12006E3	0.06	MT	Th	8.0	8.5	8.5	7.5	7.5
NEW! 1201E3N	0.1	M	M	7.0	8.5	8.0	7.5	8.0
1102E3N	0.2	M	M	6.5	8.5	8.0	7.0	8.5
1003E3	0.3	M	M/B	6.0	8.5	9.0	7.5	7.5
1004E3N	0.4	M	M/B	7.5	8.5	8.0	8.5	7.0
1108E3N	0.8	MT	M	7.0	8.5	8.0	8.5	7.0

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

12006E3

0.06 **NEW!**

Medium-Tall Plant Height | Thin Plant Type

Strengths

- › Solid overall disease package
- › Ultra early line with yield potential
- › Brown Stem Rot resistant
- › Excellent emergence and stress tolerance
- › Very good Phytophthora Root Rot tolerance



1201E3N

0.1 **NEW!**

Medium Plant Height | Medium Plant Type

Strengths

- › Consistent, dominant performance across the north
- › Above average IDC tolerance
- › Stem Canker resistant
- › Excellent emergence and early vigor
- › Very good stress tolerance
- › **SCN Tolerance**



The Enlist™ System - Get Control of Tough Weeds



- New 2,4-D Choline
- Glyphosate
- Glufosinate

Following burndown, Enlist Duo[®] and Enlist One[®] with Colex-D[®] technology are the only herbicides containing 2,4-D that are labeled for preemergence and postemergence use with Enlist E3[™] soybeans.



- Convenient blend of 2,4-D choline and glyphosate
- Two modes of action to deliver control and help prevent resistance in your fields



- Straight-goods 2,4-D choline with additional tank-mix flexibility
- Ability to tank-mix with Liberty[®] herbicide and other qualified herbicides, customizing the ratio of herbicides to match each farm's needs

On-Target Applications

- 90% less drift than traditional 2,4-D
- 96% less volatile than 2,4-D ester

Soybean Cyst Nematode Race	Phytophthora Gene	Phytophthora Field Tolerance	Brown Stem Rot	White Mold	Sudden Death Syndrome	Charcoal Root Rot	Dahlman Brand
S	NG	7.0	9.0	7.5	NA	NA	12006E3 <small>NEW!</small>
R3, MR14	NG	7.0	6.5	5.0	NA	6.0	1201E3N <small>NEW!</small>
R3, MR14	Rps 1c	7.5	6.5	7.5	NA	7.0	1102E3N
S	Rps 3a	8.0	9.0	7.5	NA	6.0	1003E3
R3, MR14	Rps 3a	7.0	9.0	5.0	NA	4.0	1004E3N
R3, MR14	Rps 1c3a	8.5	6.5	6.5	NA	6.0	1108E3N

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

1102E3N 0.2

Medium Plant Height | Medium Plant Type

Strengths

- › Solid SWM tolerance
- › Consistent in either high or low yield environments
- › Stem Canker resistant
- › Rps 1c gene for multi-race Phytophthora
- › Dark green, large round leaves

› SCN Tolerance



1003E3 0.3

Medium Plant Height | Medium-Bush Plant Type

Strengths

- › Adapted to the heavier RRV soils
- › Solid overall disease package
- › Brown Stem Rot resistant
- › Excellent emergence and early vigor
- › Rps 3a gene for multi-race Phytophthora



1004E3N 0.4

Medium Plant Height | Medium-Bush Plant Type

Strengths

- › Solid IDC tolerance
- › Adapts to the RRV, south into SD & west to east
- › Brown Stem Rot resistant
- › Rps 3a gene for multi-race Phytophthora
- › Strong lateral branches, clean look

› SCN Tolerance



1108E3N 0.8

Medium-Tall Plant Height | Medium Plant Type

Strengths

- › Moves south of RM zone well
- › Consistent, stable at high or low yield environments
- › Stem Canker resistant
- › Rps 1c3a gene for multi-race Phytophthora
- › Excellent emergence and stress tolerance

› SCN Tolerance



Dahlman Brand	Maturity	Plant Height	Plant Type	Iron Chlorosis	Emergence	Min-Till Adaptability	Stress Tolerance	Standability
1111E3N	1.1	M	M	7.0	8.5	8.0	8.5	6.5
NEW! 1213E3N	1.3	MT	M	7.5	8.5	8.5	8.5	8.0
1014E3N	1.4	MT	M/B	7.0	8.5	8.0	8.5	6.5
NEW! 1215E3N	1.5	M	M	7.5	8.5	8.5	7.5	7.5
1117E3N	1.7	M	M/B	6.5	8.5	8.0	7.5	7.5
NEW! 1219E3N	1.9	MT	M	7.5	8.5	8.0	7.5	7.5
1019E3N	1.9	M	M	8.5	8.5	9.0	8.5	8.5
1120E3N	2.0	M	M	6.0	8.5	9.0	7.0	7.0

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

1111E3N

1.1

Medium Plant Height | Medium Plant Type

Strengths

- › Has the Sulfonylurea Tolerant Soybean (STS[®]) gene
- › Very high win rates since 2018
- › Stem Canker resistant
- › Very strong Phytophthora Root Rot field tolerance
- › Excellent emergence and stress tolerance

› SCN Tolerance



1213E3N

1.3

NEW!

Medium-Tall Plant Height | Medium Plant Type

Strengths

- › Solid agronomic package and IDC tolerance
- › Excellent standability and stress tolerance
- › Stem Canker resistant
- › Rps 1c gene for multi-race Phytophthora
- › Excluder gene for soluble salts

› SCN Tolerance



1014E3N

1.4

Medium-Tall Plant Height | Medium-Bush Plant Type

Strengths

- › Very competitive performance data across SD & MN
- › Strong overall disease and agronomic package
- › Brown Stem Rot resistant
- › Rps 1c for multi-race Phytophthora

› SCN Tolerance



1215E3N

1.5

NEW!

Medium Plant Height | Medium Plant Type

Strengths

- › Strong overall disease and agronomic package
- › Very good stress tolerance and standability
- › Brown Stem Rot resistant
- › Solid SDS tolerance
- › Rps 3a gene for multi-race Phytophthora

› SCN Tolerance



Soybean Cyst Nematode Race	Phytophthora Gene	Phytophthora Field Tolerance	Brown Stem Rot	White Mold	Sudden Death Syndrome	Charcoal Root Rot	Dahlman Brand
R3, MR14	NG	6.5	6.5	6.0	7.5	7.0	1111E3N
R3, MR14	Rps 1c	8.0	7.0	6.5	7.5	6.0	1213E3N NEW!
R3, MR14	Rps 1c	7.0	9.0	5.0	5.5	7.0	1014E3N
R3, MR14	Rps 3a	8.5	9.0	6.5	7.5	6.5	1215E3N NEW!
R3, MR14	Rps 1k	7.5	6.5	7.0	6.0	6.0	1117E3N
R3, MR14	NG	7.0	9.0	7.0	7.5	6.5	1219E3N NEW!
R3, MR14	Rps 1c	7.0	9.0	7.5	4.0	6.0	1019E3N
R3, MR14	Rps 1k	7.5	9.0	7.0	5.0	6.0	1120E3N

KEY: 1 = Poor 2-3 = Fair 4-5 = Good 6-7 = Very Good 8-9 = Excellent

1117E3N

1.7

Medium Plant Height | Medium-Bush Plant Type

Strengths

- › Solid SWM tolerance
- › Moves south of RM zone well
- › Stem Canker resistant
- › Rps 1k gene for multi-race Phytophthora
- › Excellent emergence and standability
- › **SCN Tolerance**



1219E3N

1.9 **NEW!**

Medium-Tall Plant Height | Medium Plant Type

Strengths

- › Strong overall disease and agronomic package
- › Solid SDS tolerance
- › Brown Stem Rot resistant
- › Very good IDC tolerance
- › **SCN Tolerance**



1019E3N

1.9

Medium Plant Height | Medium Plant Type

Strengths

- › Consistent performance across MN
- › Excellent standability and emergence
- › Brown Stem Rot resistant
- › Excluder gene for soluble salts
- › Rps 1c for multi-race Phytophthora
- › **SCN Tolerance**



1120E3N

2.0

Medium Plant Height | Medium Plant Type

Strengths

- › Strong overall disease package
- › Can move north of RM zone
- › BSR and Stem Canker resistant
- › Rps 1k gene for multi-race Phytophthora
- › Improved SWM tolerance vs Enlist E3's in comparable RM
- › **SCN Tolerance**





AFX 455-HVX Alfalfa

Performance

- › AFX 455-HVX is an alfalfa with the HarvXtra® trait and Roundup Ready® technology used to produce the highest quality alfalfa forage in the industry.
- › Strong disease resistance package and is very winterhardy.
- › High yield potential in multiple growing environments.

Management

- › Early season weed control with glyphosate herbicides help improve establishment success and first year yield potential compared to conventional varieties.
- › Choice of delaying cutting by 7-10 days or cutting for highest RFQ.

Agronomics

Yield rating:	5 or Best
Fall dormancy class:	FD 4
Winter hardiness class:	WS 2
Multifoliate leaf expression:	Moderate
FastGrowth rating:	Average
Relative feed quality rating:	5 or Best

Pest Package

	HR	R	MR	LR	S
Diseases					
Anthrachnose	●				
Aphanomyces-Race 1	●				
Aphanomyces-Race 2			●		
Bacterial wilt	●				
Fusarium wilt	●				
Phytophthora root rot		●			
Verticillium wilt	●				
Insects					
Pea aphid		●			
Spotted alfalfa aphid		●			
Nematode Resistance					
Stem nematode		●			

5= Best; 3= Average; 1= Poor

AFX 463-RR Alfalfa

Performance

- › AFX 463-RR is an alfalfa with the Roundup Ready® technology for use in multiple growing regions including areas prone to stem nematode pressure.
- › 33 of 35 disease resistance package and is very winterhardy.
- › Very good standability and high yield potential in multiple growing environments.

Management

- › Early season weed control with glyphosate herbicides helps improve establishment success and first year yield potential compared to conventional varieties.

Agronomics

Yield rating:	5 or Best
Fall dormancy class:	FD 4
Winter hardiness class:	WS 2
Multifoliate leaf expression:	Low
FastGrowth rating:	Average
Relative feed quality rating:	3

Pest Package

	HR	R	MR	LR	S
Diseases					
Anthrachnose	●				
Aphanomyces-Race 1		●			
Aphanomyces-Race 2		●			
Bacterial wilt	●				
Fusarium wilt	●				
Phytophthora root rot	●				
Verticillium wilt	●				
Insects					
Pea aphid		●			
Nematode Resistance					
Stem nematode	●				

5= Best; 3= Average; 1= Poor



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.

Forage Genetics International, LLC ("FGI") is a member of Excellence Through Stewardship® (ETS). FGI products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in compliance with FGI's Policy for Commercialization of Biotechnology-Derived Plant Products in Commodity Crops. Roundup Ready® Alfalfa has pending import approvals. Any crop or material produced from this product can only be exported to, or used, processed or sold in countries where all necessary 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. Growers should refer to <http://www.biotradestatus.com/> for any updated information on import country approvals. Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS Roundup Ready® crops contain genes that confer tolerance to glyphosate. Glyphosate herbicides will kill crops that are not tolerant to glyphosate. Roundup Ready® is registered trademarks of Bayer Group, used under license by Forage Genetics International, LLC.



Hi-Gest 360 Alfalfa

Performance

- › A high yield potential, variety with Hi-Gest® Alfalfa Technology with improved fiber digestibility, intake and extent of digestion versus other conventional alfalfas.
- › A product of traditional plant breeding with a variety patent pending.
- › A variety that has been meeting grower and livestock producers expectations since 2015 growing season.

Management

- › Adapted to today's best alfalfa management practices.
- › Adapted to aggressive high quality or more relaxed high tonnage management systems.
- › Rations using Hi-Gest can be easily balanced by nutritionists with the results of an accurate feed test.

Appearance at Harvest Maturity

- › Plants are medium-tall, with a higher stem count, axillary branching, and a dense canopy of leaves** up and down each stem.
- › A high leaf-to-stem ratio and more crude protein than other conventionally bred, high quality, dormant alfalfa varieties at harvest maturity.

Head to Head Comparison Yield in DM Tons per Acre

Competitor	Competitor	Hi-Gest 360	Harvest Years ¹	% Yield Advantage
N-R-GEE	6.15	7.26	6	18%
WL 336HQ RR	2.20	2.45	1	12%
WL 355RR	2.26	2.45	1	8%
AmeriStand 403T	3.18	3.40	3	7%
L-449	6.38	6.73	15	6%
WL 319HQ	6.71	7.02	46	5%
AmeriStand 445-N	5.95	6.17	2	4%
Mountaineer 2.0	7.92	8.05	4	2%
WL 372HQ.RR	6.11	6.17	2	1%
WL 363HQ	7.42	7.42	6	0%
Legendairy XHD	5.85	5.83	69	0%
DKA 44-16	7.00	6.91	1	-1%

¹ Harvest Years = the number of years in either Public and/or Private trials where the two varieties have been in the same trial and are on harvest schedule for the yield comparisons to be listed.

Agronomics

Yield rating:	5 or Best
Fall dormancy class:	FD 3
Winter hardiness class:	WS 1.5
Multifoliate leaf expression:	73%/Moderate MF
FastGrowth rating:	1.83/Average
Salinity tolerance:	Germination: Tolerant

Pest Package

	HR	R	MR	LR	S
Diseases					
Anthracnose	●				
Aphanomyces-Race 1	●				
Aphanomyces-Race 2	●				
Bacterial wilt	●				
Fusarium wilt	●				
Phytophthora root rot	●				
Verticillium wilt	●				
Insects					
Blue alfalfa aphid		●			
Cowpea aphid		●			
Pea aphid			●		
Spotted alfalfa aphid	●				
Nematode Resistance					
Northern root knot		●			
Stem nematode		●			

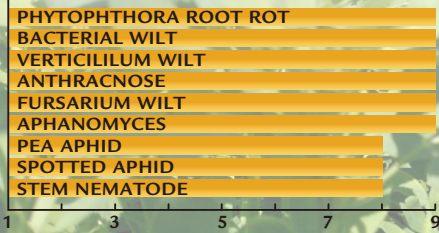
5= Best; 3= Average; 1= Poor

* The increased rate of fiber digestion, extent of digestion, and crude protein data was developed from replicated research and on-farm testing. During the 2015 growing season at West Salem, WI and Woodland, CA, the following commercial dormant, semi-dormant and non-dormant alfalfa varieties were compared head-to-head with Hi-Gest® alfalfa for rate of digestion, extent of digestion and percent crude protein: America's Alfalfa Brand AmeriStand 427TQ, Croplan Brands Legendairy XHD and Artesia Sunrise, Fertilac Brand Fertilac, S&W Seed Brands SW6330, SW7410 and SW10 and W-L Brands WL 319HQ and WL 354HQ. Also during the 2015 growing season, 32 on-farm Hi-Gest hay and silage samples were submitted to Rock River Laboratory, Inc., for forage analysis. The results for rate of digestion, extent of digestion and percent crude protein were averaged and compared to the 60-day and four-year running averages for alfalfa in the Rock River database which included approximately 1,700 alfalfa hay and 3,800 silage 60-day test results and 23,000 hay and 62,000 silage tests results in the four-year average.

** Improved Hi-Gest® alfalfa leafiness, as documented by Alforex Seeds replicated trials at West Salem, WI and Woodland, CA, versus the following commercial alfalfa varieties: America's Alfalfa Brand AmeriStand 427TQ, Croplan Brands Legendairy XHD and Artesia Sunrise, Fertilac Brand Fertilac, S&W Brands SW6330, SW7410 and SW10 and W-L Brands WL 319HQ and WL 354HQ.

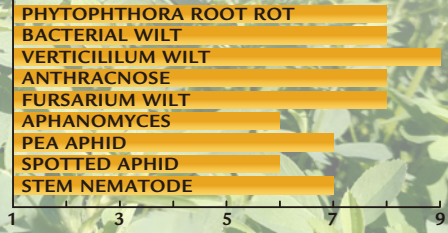
Perfect Plus Alfalfa

- › Winter hardiness – very hardy
- › Recovery – very fast
- › Wisconsin disease rating – 30 of 30
- › Leaf to stem ratio – very high



Colt's Alfalfa

- › Winter hardiness – hardy
- › Recovery – very fast
- › Wisconsin disease rating – 29 of 30
- › Leaf to stem ratio – high



Shelly Wheat

“Shelly” wheat variety was developed by the University of Minnesota and Released in January, 2016, Shelly is a high-yielding spring wheat variety well suited for all of the spring wheat-growing region.

In state trials it yielded equal to the popular varieties “Faller” and “Prosper,” but with slightly better protein. The heading date of Shelly is similar to Faller. It possesses a good disease-resistance package with moderate resistance to scab, leaf rust and bacterial leaf streak. It also has an excellent rating for resistance to stripe and stem rust. Shelly is slightly shorter than Faller and has similar straw strength. It has good test weight and pre-harvest sprouting resistance.

Jochum Wiersma, University of Minnesota Extension Agronomist, says, “Shelly is a nice compliment in the strong University of Minnesota line-up of HRSW cultivars and replaces Norden in the top yield segment. It is a strong contender to replace both Faller and its sister line Prosper, which together have accounted for roughly a third of Minnesota’s wheat acreage in recent years.”

The release is named after the town of Shelly, Minnesota. It is on the west side of Norman County, Minnesota, near the Red River and in prime wheat growing country.





Agronomy Spotlight



Corn Insect B.t. Trait Reference Table - Above Ground Protection

					ABOVE-GROUND				BELOW-GROUND					
<ul style="list-style-type: none"> • One effective mode of action • Two effective modes of action <p>Refer to the table on page 3 for information regarding efficacy against specific insect pests.</p>		% Refuge in Bag	Glyphosate Tolerant	Glufosinate Tolerant	VT Double PRO®	Herculex® I	YieldGard® Corn Borer	Agrisure Viptera®	Agrisure® CB	YieldGard VT Rootworm/RR2™	Herculex® RW	Agrisure® RW	Agrisure Duracade®	RNAI (No Trade Name)
BAYER CROP SCIENCE	VT Double PRO® corn		•		••									
	VT Double PRO® RIB Complete® corn blend	5%	•		••									
	Trecepta® corn		•		••		•							
	Trecepta® RIB Complete® corn blend	5%	•		••		•							
CORTEVA AGRI-SCIENCE	Herculex® I		•	•		•								
	Optimum® Intrasect®		•	•		•	•							
	Optimum® AcreMax®	5%	•	•		•	•							
	Optimum® Leptra®		•	•		•	•	•						
	Optimum® AcreMax® Leptra®	5%	•	•		•	•	•						
	PowerCore®		•	•	••	•								
	PowerCore® Refuge Advanced	5%	•	•	••	•								
SYNGENTA	Agrisure® 3010		•	•					•					
	Agrisure® 3120 E-Z Refuge®	5%	•			•			•					
	Agrisure Viptera® 3110 or 3110A		•	•				•	•					
	Agrisure Viptera® 3220 E-Z Refuge®	5%	•			•		•	•					
	Agrisure Viptera® 3220A E-Z Refuge®	5%	•			•		•	•					
	Agrisure Viptera® 3330 E-Z Refuge®	5%	•		••			•	•					

Corn Insect B.t. Trait Reference Table - Above and Below Ground Protection

				ABOVE-GROUND					BELOW-GROUND				
				% Refuge in Bag	Glyphosate Tolerant	Glufosinate Tolerant	VT Double PRO®	Herculex® I	YieldGard® Corn Borer	Agrisure Viptera®	Agrisure® CB	YieldGard VT Rootworm/RR2™	Herculex® RW
	<ul style="list-style-type: none"> • One effective mode of action • • Two effective modes of action <p>Refer to the table on page 3 for information regarding efficacy against specific insect pests.</p>												
BAYER CROP SCIENCE	VT Triple PRO® corn		•		••				•				
	VT Triple PRO® RIB Complete® corn blend	10%	•		••				•				
	SmartStax® corn		•	•	••	•			•	•			
	SmartStax® RIB Complete® corn blend	5%	•	•	••	•			•	•			
	SmartStax® PRO corn blend		•	•	••	•			•	•			•
	SmartStax® PRO RIB Complete brand blend	5%	•	•	••	•			•	•			•
CORTEVA AGRISCIENCE	Optimum® Intrasect® XTreme		•	•		•	•			•	•		
	Optimum® AcreMax® XTreme	5%	•	•		•	•			•	•		
	Qrome®*	5%	•	•		•	•			•	•		
	SmartStax®		•	•	••	•			•	•			
	SmartStax® Refuge Advanced	5%	•	•	••	•			•	•			
	Herculex® XTRA		•	•		•				•			
	Optimum® TRlsect®		•	•		•					•		
	Optimum® Intrasect® Xtra		•	•		•	•			•			
	Optimum® AcreMax® Xtra	10%	•	•		•	•			•			
	Optimum® Intrasect® TRlsect®		•	•		•	•				•		
	Optimum® AcreMax® TRlsect®	10%	•	•		•	•				•		
SYNGENTA	Agrisure® 3000 GT		•	•				•			•		
	Agrisure® 3122 E-Z Refuge®	5%	•			•		•		•	•		
	Agrisure Viptera® 3111 or 3111A		•	•				•	•		•		
	Agrisure Duracade® 5122 E-Z Refuge®	5%	•			•		•			•	•	
	Agrisure Duracade® 5122A E-Z Refuge®	5%	•			•		•			•	•	
	Agrisure Duracade® 5222 E-Z Refuge®	5%	•			•		•	•		•	•	
	Agrisure Duracade® 5222A E-Z Refuge®	5%	•			•		•	•		•	•	

*Qrome contains event DP4114 which is a molecular stack of the insect protection genes in Herculex®I and Herculex® RW.



Corn Insect B.t. Trait Reference Table

	ABOVE-GROUND					BELOW-GROUND				
	VT Double PRO® corn	Herculex® I	YieldGard® Corn Borer	Agrisure Viptera®	Agrisure® CB	YieldGard VT Rootworm/ RR2™	Herculex® RW	Agrisure® RW	Agrisure Duracade®	RNAi (No Trade Name)
European corn borer	**	*	*		*					
Southwestern corn borer	**	*	*	*	*					
Fall armyworm	**	*		*						
Corn earworm ^{1,2}	**			*						
Western bean cutworm				*						
Black cutworm		*		*						
Western corn rootworm						*	*	*	*	*
Northern corn rootworm						*	*	*	*	*
Mexican corn rootworm						*	*	*	*	*
**Dual-mode activity *Single-mode activity Mode of action equals control of pest.										
<small>¹Pioneer claims suppression of corn earworm with Herculex I® technology, Syngenta claims suppression of corn earworm with BT11.</small>										
<small>²Cry1A.105 and Cry2Ab2 from B.t. controls or suppresses corn earworm.</small>										

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 necessary 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.

SmartStax® PRO corn products will be commercially available for the 2022 growing season.

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.

IMPORTANT IRM INFORMATION: RIB Complete® corn blend products do not require the planting of a structured refuge except in the Cotton-Growing Area where corn earworm is a significant pest. See the IRM/Grower Guide for additional information. Always read and follow IRM requirements.

Performance may vary, from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields.

Roundup Ready® 2 Technology contains genes that confer tolerance to glyphosate. Glyphosate will kill crops that are not tolerant to glyphosate. 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. LibertyLink® and the Water Droplet Design® is a trademark of BASF Corporation. Respect the Refuge and Corn Design® and Respect the Refuge® are registered trademarks of National Corn Growers Association. Bayer, Bayer Cross, RIB Complete®, Roundup Ready 2 Technology and Design™, Roundup Ready®, SmartStax®, Trecepta®, VT Double PRO® and VT Triple PRO® are trademarks of Bayer Group. All other trademarks are the property of their respective owners. ©2021 Bayer Group. All rights reserved. 1014_S1



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

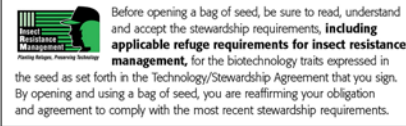


2022 Dahlman Corn Reference Chart

RM Relative Maturity	VT Double PRO RIB COMPLETE VT Double PRO® RIB Complete® corn blend	SmartStax RIB COMPLETE SmartStax® RIB Complete® corn blend	Roundup Ready 2 CORN Roundup Ready® 2	Conventional Conventional
82	R41-22VT2PRIB			
82	R41-23VT2PRIB			
85	R42-28VT2PRIB			
85	R43-29VT2PRIB		R43-19	D43-01
86	R43-24VT2PRIB			
90	R45-25VT2PRIB			
90	R45-28VT2PRIB		R45-12	
92	R46-27VT2PRIB		R46-14	D46-04
94	R47-24VT2PRIB	R46-313SSRIB <small>NEW</small>	R47-10	
94	R47-26VT2PRIB			
95	R48-28VT2PRIB			D48-04
96	R48-21VT2PRIB			D48-08
98	R49-29VT2PRIB <small>NEW</small>			
98	R49-25VT2PRIB			D49-02
98	R49-23VT2PRIB	R49-340SSRIB <small>NEW</small>		D49-09
100	R50-25VT2PRIB <small>NEW</small>	R50-355SSRIB <small>NEW</small>		
103	R52-24VT2PRIB		R52-14	D52-04
104	R52-26VT2PRIB <small>NEW</small>			
106		R53-359SSRIB		
106		R53-350SSRIB <small>NEW</small>		

Matching colors indicate corn hybrids from the same base genetic family





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 necessary 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. It is a violation of federal and state law to use any pesticide product other than in accordance with its labeling. NOT ALL formulations of dicamba or glyphosate are approved for in-crop use with Roundup Ready 2 Xtend® soybeans. NOT ALL formulations of dicamba, glyphosate or glufosinate are approved for in-crop use with products with XtendFlex® Technology. ONLY USE FORMULATIONS THAT ARE SPECIFICALLY LABELED FOR SUCH USES AND APPROVED FOR SUCH USE IN THE STATE OF APPLICATION. Contact the U.S. EPA and your state pesticide regulatory agency with any questions about the approval status of dicamba herbicide products for in-crop use with Roundup Ready 2 Xtend® soybeans or products with XtendFlex® Technology.

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

IMPORTANT IRM INFORMATION: RIB Complete® corn blend products do not require the planting of a structured refuge except in the Cotton-Growing Area where corn earworm is a significant pest. See the IRM/Grower Guide for additional information. Always read and follow IRM requirements.

Roundup Ready® 2 Technology contains genes that confer tolerance to glyphosate. Roundup Ready 2 Xtend® soybeans contain genes that confer tolerance to glyphosate and dicamba. Products with XtendFlex® Technology contains genes that confer tolerance to glyphosate, glufosinate and dicamba. Glyphosate will kill crops that are not tolerant to glyphosate. Dicamba will kill crops that are not tolerant to dicamba. Glufosinate will kill crops that are not tolerant to glufosinate. Contact your seed brand dealer or refer to the Bayer Technology Use Guide for recommended weed control programs

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. LibertyLink® and the Water Droplet Design® is a trademark of BASF Corporation. 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 2 Xtend®, Roundup Ready 2 Yield®, Roundup Ready®, SmartStax®, Trecepta®, VT Double PRO® and XtendFlex® are trademarks of Bayer Group

RIB Complete®, Roundup Ready 2 Technology and Design™, Roundup Ready 2 Xtend®, Roundup Ready 2 Yield®, Roundup Ready®, SmartStax®, VT Double PRO® and XtendFlex® are trademarks of Bayer Group. Herculex® is a registered trademark of Dow AgroSciences LLC. LibertyLink® and the Water Droplet Design® is a trademark of BASF Corporation. Respect the Refuge and Corn Design® and Respect the Refuge® are registered trademarks of National Corn Growers Association.

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 guidelines, our product launch process for responsible launches of new products includes a longstanding process to evaluate export market information, value chain consultations, and regulatory functionality. Growers and end users 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.

Seeds containing the Enlist, Herculex and PowerCore traits are protected under numerous US patents. Seeds containing patented traits can only be used to plant a single commercial crop and cannot be saved or replanted. 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 Technology Use Agreement and (ii) the Product Use Guides for all technologies in this seed, including the Herbicide Resistance Management (HRM), and Use requirements detailed therein (www.corteva.us/Resources/trait-stewardship.html). To plant Enlist, Herculex and PowerCore 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 the 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 Use Agreement in effect at the time of planting of this seed. Always read and follow herbicide label directions prior to use: Enlist® products contain the Enlist trait that provides crop safety for use of labeled over-the-top applications of glyphosate, glufosinate and 2,4-D herbicides featuring Colex-D® technology when applied according to label directions. Following burndown, the only 2,4-D containing herbicide products that may be used with Enlist® crops are products that feature Colex-D technology and are expressly labeled for use on Enlist crops. 2,4-D products that do not contain Colex-D technology are not authorized for use in conjunction with Enlist products.

The transgenic soybeans event in Enlist E3® soybeans is jointly developed and owned by Dow AgroSciences LLC and M.S. Technologies, L.L.C.™ Enlist, Enlist E3, the Enlist E3 logo, and Colex-D are trademarks of The Dow Chemical Company ("Dow") or an affiliated company of Dow. Excellence Through Stewardship is a registered trademark of Excellence Through Stewardship.

Enlist E3® soybean seeds containing the Enlist® trait can only be used to plant a single commercial crop. It is unlawful to save and replant Enlist E3® soybeans. Additional information and limitations on the use of these products are provided in the Corteva Agriscience Technology Use Agreement and Enlist® Soybean Product Use Guide. U.S. patents for Dow AgroSciences technologies can be found at the following webpage: www.corteva.us/Resources/trait-stewardship.html

Seed containing a patented trait can only be used to plant a single commercial crop. It is unlawful to save and replant Roundup Ready 2 Yield® soybeans, Roundup Ready 2 Xtend® soybeans, and XtendFlex® soybeans. Additional information and limitations on the use of these products are provided in the Technology Stewardship Agreement and the Bayer Technology Use Guide: <https://tug.bayer.com>. U.S. patents for Bayer technologies can be found at the following webpage: <http://www.monsantotechnology.com>



DAHLMAN[®]

PREMIUM SEED | PERFORMANCE PROVEN

73504 200th Street, Dassel, MN 55325 • (320) 275-2527 • Fax (320) 275-2290
1-800-BUY SEED (1-800-289-7333) • www.dahlmanseed.com





Premium Seed – Leading Edge Technology

INTEGRITY
AG^{LLC}

PREMIUM
SEED

TRUSTED
PARTNER

DAHLMAN



BRYAN SCHERR
Owner

bryan@integrityagllc.com
605-281-1033



KEVIN SCHERR
Owner

kevin@integrityagllc.com
605-281-0640