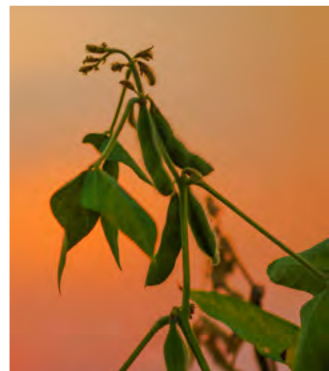


2023 Seed Guide



CONTENTS

Corn..... 3

Soybean..... 17

Product Guide..... 21

Glossary 35

CUSTOM BLENDS

If you don't see what you need,
please contact us today for a custom blend!



87194 494 Ave, O'Neill, Nebraska
(402) 336-1250 | SeedHouseOrders@wilburellis.com

Always follow grain marketing and IRM requirements and pesticide label directions. Agronomic characteristics and ratings may vary with growing conditions and environment. Ratings are approximate and should not be considered as absolute. Ratings on new products are based on limited data and may change as more data are collected. Extreme or variable conditions may adversely affect performance. WILBUR-ELLIS logo, BRONC, HARVEST BOUNTY, HARVEST BOUNTY logo, and The Seed House are registered trademarks, is a trademark of Wilbur-Ellis Company LLC. Roundup Ready is a registered trademark of Bayer. K-233003

Welcome



At Harvest Bounty, your acreage, your family farm, and your business are our #1 priority. Our main objective is to provide you with the means to increase your yields and profitability while still maintaining your goal of growing a sustainable crop with our products.



Our Harvest Bounty line offers you a wide selection of high quality, non-GMO, and conventional corn and soybeans. We also carry a diverse line of pre-blended cover crop mixes. Our sales team can help you design a cover crop blend that is mixed specifically for your fields or current environmental conditions if needed.

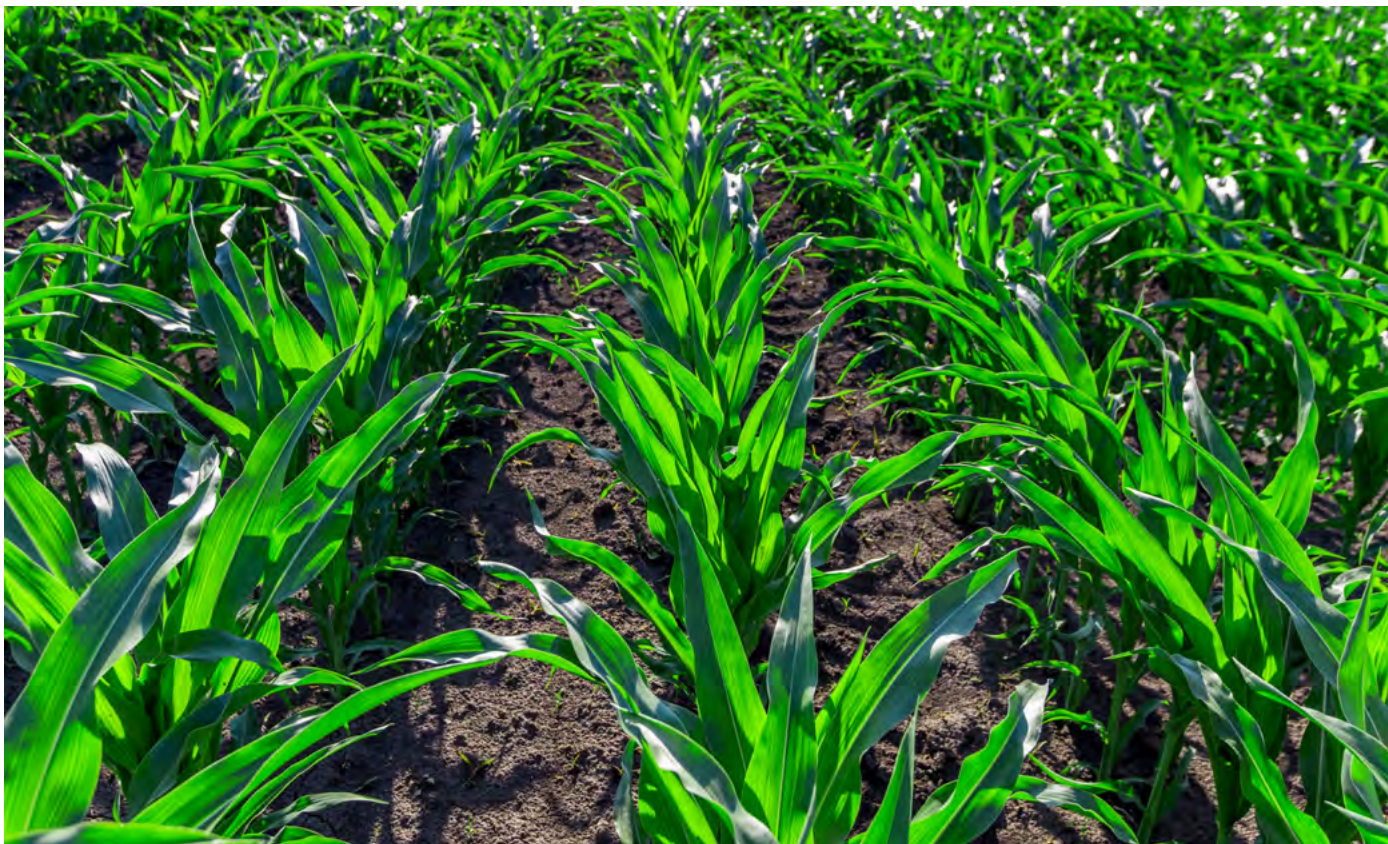
At Harvest Bounty, we strive to be a business that is built on flexibility so we can adapt our products according to our producers' needs as the markets and/or weather changes.

Bernard Schaben
National Director of Seed





Harvest Bounty Corn



HARVEST BOUNTY Corn Numbering System

HB = Harvest Bounty

HB1690W

Relative Maturity

For 100 RM and later products, the relative maturity is the first two digits + 100. For example, HB1690W is $16 + 100 = 116$ RM.

For 99 RM and earlier products, the relative maturity is the first two digits. For example, HB7801 is a **78 RM** hybrid.

Indicates White Corn

Indicates Year of Advancement

Differentiating Digit

Agronomics Ratings Key



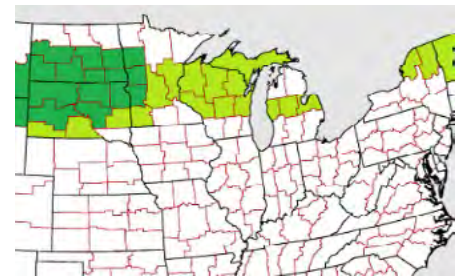
All agronomic characteristics and ratings may vary with growing conditions and environment. Ratings are approximate and should not be considered as absolute. Ratings on new hybrids are based on limited data and may change as more data are collected. Extreme conditions may adversely affect hybrid performance. The relative maturity of one hybrid to another remains reasonably constant; however, the actual number of calendar days from seeding to physiological maturity varies with date of planting, planting rate, temperature, day length, soil fertility, and other environmental factors.

Hybrid Highlights

- Excellent top-end yield potential with multiple years of performance
- Strong early vigor for planting into cool soils or reduced tillage
- Good drought and stress tolerance allowing movement onto tougher acres
- Recommend timely harvest
- Dual-purpose potential

Trait: CONV

Region Adaptability



Agronomics

Staygreen	Average
Greensnap	Above Avg
Stalks	Very Good
Roots	Very Good
Early Vigor	Very Good
Drought Tolerance	Very Good
Test Weight	Above Avg
Silage	Very Good

Water Management

Full Irrigation	HR
Limited Irrigation	HR
Rainfed	HR
Dryland (Stress)	HR

Disease Tolerance

N. Corn Leaf Blight	Very Good
Gray Leaf Spot	Above Avg
Southern Leaf Blight	N/A
Goss's Wilt	Above Avg
Common Rust	Above Avg
Southern Rust	N/A
Stalk Rot	Above Avg
Ear Rot	N/A

Management Response

Added Management	Excellent
Fungicide Response	Excellent
Average Management	Very Good
Low Management	Very Good

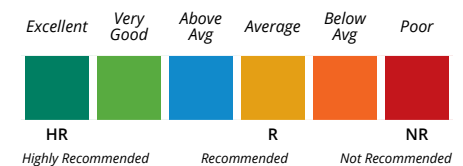
Soil Placement

Course (Droughty)	Excellent
Medium	Excellent
Heavy (Well Drained)	Excellent
Heavy (Poorly Drained)	Excellent
Variable	Excellent

Rotation Management

Rotated Acres	HR
Continuous Corn	HR
Continuous Corn w/ Fungicide	HR

Key





HB9462 | 94 RM

HARVEST BOUNTY® CORN

Plant Description

Plant Height	Med-Tall
Ear Height	Medium
Leaf Angle	Semi-Upright
Leaf Color	N/A
Leaf Width	N/A
Silk Color	N/A
Anther Color	N/A
Kernel Cap Color	N/A
Kernel Row	16-18
Cob Color	Red
Ear Length	Semi-Long
Ear Girth	Average
Ear Type	Flex
Husk Cover	Medium

Population Management

Yield Environment	Population Range
0-100	14000-20000
101-150	20000-28000
151-200	28000-32000
201-250	32000-35000
251-300	35000-42000

Herbicide Sensitivity

Growth Regulator	Acceptable
Sulfonyleureas Inhibitors (ALS)	Acceptable
Pigment Inhibitors (HPPD)	Acceptable

Yield Environment Placement

Tough	Excellent
Variable	Excellent
High Yield	Excellent



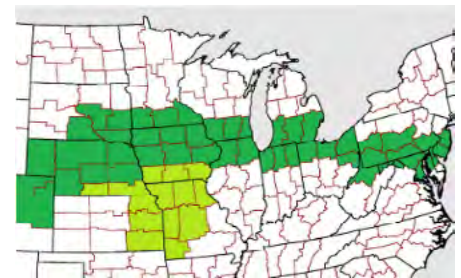
Performance may vary from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and consider the impacts of these conditions on the grower's fields. Always follow grain marketing and IRM requirements and pesticide label directions. Agronomic characteristics and ratings may vary with growing conditions and environment. Ratings are approximate and should not be considered as absolute. Ratings on new products are based on limited data and may change as more data are collected. Extreme or variable conditions may adversely affect performance. WILBUR-ELLIS logo, The Power of We, HARVEST BOUNTY, and HARVEST BOUNTY Logo are registered trademarks of Wilbur-Ellis Company LLC. DEKALB is a registered trademark of Bayer Group. Pioneer is a registered trademark of Corteva Agriscience and its affiliated companies.

Hybrid Highlights

- Widely adapted hybrid across soils and yield environments with strong agronomics
- Very good staygreen and late-season intactness
- Consistent ear set within row
- Very strong *Goss's wilt* tolerance
- Dual-purpose potential
- Best performance in western regions

Trait: CONV

Region Adaptability



Agronomics

Staygreen	Very Good
Greensnap	Very Good
Stalks	Very Good
Roots	Very Good
Early Vigor	Average
Drought Tolerance	Very Good
Test Weight	Average
Silage	Excellent

Water Management

Full Irrigation	HR
Limited Irrigation	HR
Rainfed	HR
Dryland (Stress)	HR

Disease Tolerance

N. Corn Leaf Blight	Average
Gray Leaf Spot	Very Good
Southern Leaf Blight	N/A
Goss's Wilt	Excellent
Common Rust	Very Good
Southern Rust	N/A
Stalk Rot	Very Good
Ear Rot	N/A

Management Response

Added Management	Very Good
Fungicide Response	Average
Average Management	Excellent
Low Management	Excellent

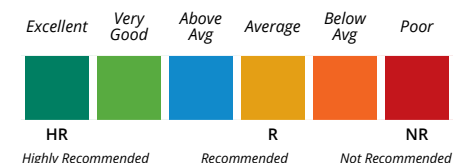
Soil Placement

Course (Droughty)	Very Good
Medium	Excellent
Heavy (Well Drained)	Excellent
Heavy (Poorly Drained)	Very Good
Variable	Excellent

Rotation Management

Rotated Acres	HR
Continuous Corn	HR
Continuous Corn w/ Fungicide	R

Key





HB9712 | 97 RM

HARVEST BOUNTY® CORN

Plant Description

Plant Height	Med-Tall
Ear Height	Medium
Leaf Angle	Semi-Upright
Leaf Color	N/A
Leaf Width	N/A
Silk Color	N/A
Anther Color	N/A
Kernel Cap Color	N/A
Kernel Row	16-18
Cob Color	Red
Ear Length	Semi-Long
Ear Girth	Average
Ear Type	Flex
Husk Cover	Medium

Population Management

Yield Environment	Population Range
0-100	14000-20000
101-150	20000-28000
151-200	28000-32000
201-250	32000-35000
251-300	32000-35000

Herbicide Sensitivity

Growth Regulator	Caution
Sulfonylureas Inhibitors (ALS)	Acceptable
Pigment Inhibitors (HPPD)	Acceptable

Yield Environment Placement

Tough	Excellent
Variable	Excellent
High Yield	Excellent



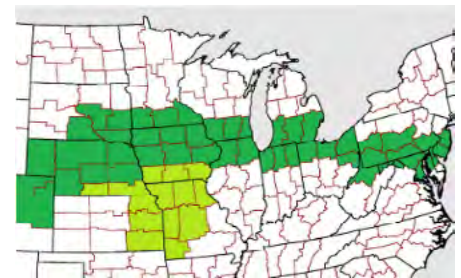
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Hybrid Highlights

- Widely adapted hybrid with top-end yield and ability to go tough acre
- Good southern movement for RM
- Strong *Goss's wilt* and lower greensnap risk for Western Corn Belt
- Responsive to added management
- Dual-purpose potential

Trait: CONV

Region Adaptability



Agronomics

Staygreen	Average
Greensnap	Very Good
Stalks	Very Good
Roots	Very Good
Early Vigor	Above Avg
Drought Tolerance	Very Good
Test Weight	Above Avg
Silage	Excellent

Water Management

Full Irrigation	HR
Limited Irrigation	HR
Rainfed	HR
Dryland (Stress)	HR

Disease Tolerance

N. Corn Leaf Blight	Very Good
Gray Leaf Spot	Very Good
Southern Leaf Blight	N/A
Goss's Wilt	Very Good
Common Rust	Above Avg
Southern Rust	N/A
Stalk Rot	Above Avg
Ear Rot	N/A

Management Response

Added Management	Excellent
Fungicide Response	Very Good
Average Management	Very Good
Low Management	Very Good

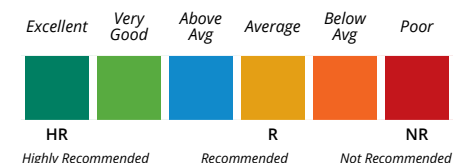
Soil Placement

Course (Droughty)	Very Good
Medium	Excellent
Heavy (Well Drained)	Excellent
Heavy (Poorly Drained)	Excellent
Variable	Excellent

Rotation Management

Rotated Acres	HR
Continuous Corn	R
Continuous Corn w/ Fungicide	R

Key





HB0501 | 105 RM

HARVEST BOUNTY® CORN

Plant Description

Plant Height	Med-Tall
Ear Height	Medium
Leaf Angle	Semi-Upright
Leaf Color	N/A
Leaf Width	N/A
Silk Color	N/A
Anther Color	N/A
Kernel Cap Color	N/A
Kernel Row	16-18
Cob Color	Red
Ear Length	Average
Ear Girth	Semi-Girthy
Ear Type	Semi-Flex
Husk Cover	Medium

Population Management

Yield Environment	Population Range
0-100	14000-20000
101-150	20000-28000
151-200	28000-32000
201-250	32000-35000
251-300	35000-42000

Herbicide Sensitivity

Growth Regulator	Acceptable
Sulfonylureas Inhibitors (ALS)	Acceptable
Pigment Inhibitors (HPPD)	Acceptable

Yield Environment Placement

Tough	Very Good
Variable	Excellent
High Yield	Excellent

Trial	Hybrid	Locs	Yld Rk	Yld	Yld %Mn	% Mst	Y/M	Pop 000s	% SL	% RL	TwT
ZN4	DEKALB® DKC51-25	33	42	215.9	97	17.4	12.5	33.7	2.4	1.2	59.2
ZN4	DEKALB DKC54-65	33	40	216.2	97	17.4	12.6	33.3	2.0	1.6	58.8
ZN4	DEKALB DKC52-34	33	49	211.4	95	17.5	12.2	32.6	1.5	0.0	58.7
ZN4	Pioneer® P0075Q	33	23	223.4	100	17.8	12.8	33.7	0.9	1.1	58.0
ZN4	Pioneer P0306AM	33	36	218.7	98	17.8	12.5	33.2	1.1	0.1	58.8
ZN4	HB0501	33	5	233.5	105	18.3	13.0	33.1	0.7	0.2	58.4
ZN4	Pioneer P0688AM	33	18	224.7	101	18.8	12.2	33.6	1.6	0.2	58.2
ZN4	DEKALB DKC56-45	33	9	232.0	104	19.3	12.3	33.3	1.9	0.4	57.6
ZN4	Mn			224.2		18.2	12.5	32.8	2.0	1.1	57.8
ZN4	CVErr			6.51		4.48					
ZN4	#Locs			33		33	33	33	30	30	23
ZN5	HB0501	32	15	241.7	101	17.8	14.0	33.3	0.2	0.5	58.8
ZN5	Pioneer P0688AM	32	44	228.2	96	18.2	12.9	33.2	1.4	0.3	58.2
ZN5	Pioneer P0720Q	31	11	244.5	103	18.6	13.7	33.3	0.3	0.6	58.4
ZN5	DEKALB DKC56-45	32	25	238.3	100	18.9	13.1	33.5	0.8	0.7	58.2
ZN5	DEKALB DKC59-82	32	4	250.5	105	19.4	13.5	33.3	0.2	1.8	57.4
ZN5	DEKALB DKC61-40	32	9	246.5	103	19.4	13.3	31.8	0.4	1.4	57.1
ZN5	Mn			239.5		18.8	13.2	32.7	0.9	3.3	57.8
ZN5	CVErr			6.93		5.75					
ZN5	#Locs			32		32	32	32	26	24	27

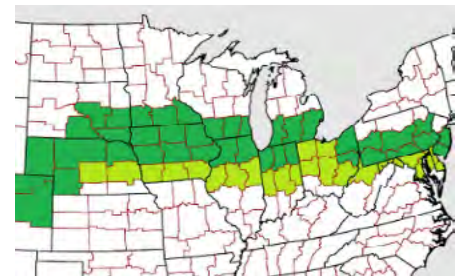
Performance may vary from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and consider the impacts of these conditions on the grower's fields. Always follow grain marketing and IRM requirements and pesticide label directions. Agronomic characteristics and ratings may vary with growing conditions and environment. Ratings are approximate and should not be considered as absolute. Ratings on new products are based on limited data and may change as more data are collected. Extreme or variable conditions may adversely affect performance. WILBUR-ELLIS logo, The Power of We, HARVEST BOUNTY, and HARVEST BOUNTY Logo are registered trademarks of Wilbur-Ellis Company LLC. DEKALB is a registered trademark of Bayer Group. Pioneer is a registered trademark of Corteva Agriscience and its affiliated companies.

Hybrid Highlights

- Impressive yield potential with good response to high-yield management
- Best placed in zone and north, on above average to high-yielding farms
- Increased performance when populations are pushed
- Good option for narrow row management
- Strong overall disease package, including *Goss's wilt*
- Dual-purpose potential

Trait: CONV

Region Adaptability



Agronomics

Staygreen	Very Good
Greensnap	Above Avg
Stalks	Above Avg
Roots	Above Avg
Early Vigor	Above Avg
Drought Tolerance	Above Avg
Test Weight	Very Good
Silage	Very Good

Water Management

Full Irrigation	HR
Limited Irrigation	R
Rainfed	HR
Dryland (Stress)	NR

Disease Tolerance

N. Corn Leaf Blight	Very Good
Gray Leaf Spot	Above Avg
Southern Leaf Blight	Very Good
Goss's Wilt	Very Good
Common Rust	Very Good
Southern Rust	N/A
Stalk Rot	Above Avg
Ear Rot	Above Avg

Management Response

Added Management	Excellent
Fungicide Response	Above Avg
Average Management	Very Good
Low Management	Above Avg

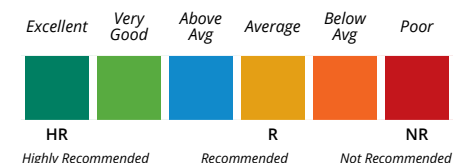
Soil Placement

Course (Droughty)	Average
Medium	Excellent
Heavy (Well Drained)	Very Good
Heavy (Poorly Drained)	Average
Variable	Very Good

Rotation Management

Rotated Acres	HR
Continuous Corn	R
Continuous Corn w/ Fungicide	R

Key





HB0660 | 106 RM

HARVEST BOUNTY® CORN

Plant Description

Plant Height	Tall
Ear Height	Med-High
Leaf Angle	Upright
Leaf Color	N/A
Leaf Width	N/A
Silk Color	N/A
Anther Color	N/A
Kernel Cap Color	N/A
Kernel Row	18-20
Cob Color	Red
Ear Length	Average
Ear Girth	Girthy
Ear Type	Semi-Determinate
Husk Cover	Medium

Population Management

Yield Environment	Population Range
0-100	NR
101-150	NR
151-200	28000-32000
201-250	32000-35000
251-300	35000-42000

Herbicide Sensitivity

Growth Regulator	Acceptable
Sulfonyleureas Inhibitors (ALS)	Acceptable
Pigment Inhibitors (HPPD)	Acceptable

Yield Environment Placement

Tough	Below Avg
Variable	Very Good
High Yield	Excellent



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 consider the impacts of these conditions on the grower's fields. Always follow grain marketing and IRM requirements and pesticide label directions. Agronomic characteristics and ratings may vary with growing conditions and environment. Ratings are approximate and should not be considered as absolute. Ratings on new products are based on limited data and may change as more data are collected. Extreme or variable conditions may adversely affect performance. WILBUR-ELLIS logo, The Power of We, HARVEST BOUNTY, and HARVEST BOUNTY Logo are registered trademarks of Wilbur-Ellis Company LLC. DEKALB is a registered trademark of Bayer Group. Pioneer is a registered trademark of Corteva Agriscience and its affiliated companies.

Hybrid Highlights

- Acre eater! Good movement east to west, north to south
- Extremely consistent performance across yield environments, soils, and years
- Impressive overall agronomics
- Attractive late-season intactness
- Dual-purpose potential

Agronomics

Staygreen	Very Good
Greensnap	Average
Stalks	Very Good
Roots	Very Good
Early Vigor	Above Avg
Drought Tolerance	Very Good
Test Weight	Very Good
Silage	Excellent

Water Management

Full Irrigation	HR
Limited Irrigation	HR
Rainfed	HR
Dryland (Stress)	HR

Disease Tolerance

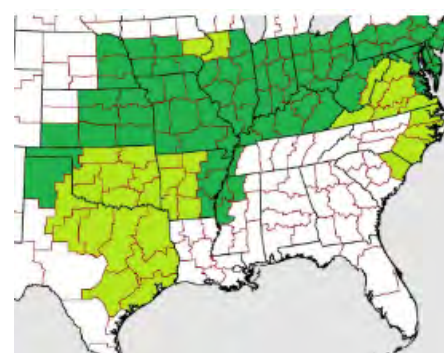
N. Corn Leaf Blight	Very Good
Gray Leaf Spot	Very Good
Southern Leaf Blight	Very Good
Goss's Wilt	Above Avg
Common Rust	Above Avg
Southern Rust	N/A
Stalk Rot	Very Good
Ear Rot	Above Avg

Management Response

Added Management	Above Avg
Fungicide Response	Above Avg
Average Management	Excellent
Low Management	Excellent

Trait: CONV

Region Adaptability



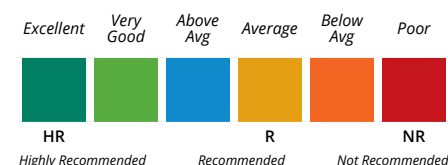
Soil Placement

Course (Droughty)	Very Good
Medium	Excellent
Heavy (Well Drained)	Very Good
Heavy (Poorly Drained)	Very Good
Variable	Excellent

Rotation Management

Rotated Acres	HR
Continuous Corn	R
Continuous Corn w/ Fungicide	R

Key





HB1331 | 113 RM

HARVEST BOUNTY® CORN

Plant Description

Plant Height	Med-Tall
Ear Height	Medium
Leaf Angle	Semi-Upright
Leaf Color	N/A
Leaf Width	N/A
Silk Color	N/A
Anther Color	N/A
Kernel Cap Color	N/A
Kernel Row	14-16
Cob Color	Red
Ear Length	Semi-Long
Ear Girth	Semi-Girthy
Ear Type	Semi-Flex
Husk Cover	Good

Population Management

Yield Environment	Population Range
0-100	14000-20000
101-150	20000-28000
151-200	28000-32000
201-250	32000-35000
251-300	35000-42000

Herbicide Sensitivity

Growth Regulator	Acceptable
Sulfonylureas Inhibitors (ALS)	Acceptable
Pigment Inhibitors (HPPD)	Acceptable

Yield Environment Placement

Tough	Excellent
Variable	Excellent
High Yield	Excellent

Trial	Hybrid	Locs	Yld Rk	Yld	Yld %Mn	% Mst	Y/M	Pop 000s	% SL	% RL	Twt
ZN7	HB1331	37	6	244.6	103	17.9	14.2	32.3	0.9	0.3	57.9
ZN7	DEKALB® DKC61-40	37	43	229.2	97	18.0	13.4	31.6	0.9	1.4	57.4
ZN7	Pioneer® P1197AM	37	31	235.8	99	18.5	13.3	32.3	1.0	0.9	58.1
ZN7	DEKALB DKC63-90	37	32	235.8	99	18.6	13.3	32.4	0.3	5.7	57.2
ZN7	Pioneer P1366Q	37	39	231.4	98	18.7	13.0	32.8	0.0	1.0	58.5
ZN7	Pioneer P1108Q	37	28	236.3	100	19.4	12.7	32.7	0.3	3.6	57.7
ZN7	DEKALB DKC67-44	37	1	248.9	105	19.5	13.2	33.0	1.2	3.0	59.0
ZN7	Pioneer P1563AM	37	7	244.4	103	20.3	12.5	32.8	0.5	3.8	57.7
ZN7	DEKALB DKC64-34	37	13	243.0	103	20.5	12.4	32.4	0.3	1.7	58.6
ZN7	DEKALB DKC66-18	37	3	246.9	104	20.5	12.5	32.8	0.3	2.0	58.1
ZN7	Mn			237.4		19.1	13.0	32.1	0.5	3.2	57.9
ZN7	CVErr			6.56		5.73					
ZN7	#Locs			37		37	37	37	29	27	32

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 consider the impacts of these conditions on the grower's fields. Always follow grain marketing and IRM requirements and pesticide label directions. Agronomic characteristics and ratings may vary with growing conditions and environment. Ratings are approximate and should not be considered as absolute. Ratings on new products are based on limited data and may change as more data are collected. Extreme or variable conditions may adversely affect performance. WILBUR-ELLIS logo, The Power of We, HARVEST BOUNTY, and HARVEST BOUNTY Logo are registered trademarks of Wilbur-Ellis Company LLC. DEKALB is a registered trademark of Bayer Group. Pioneer is a registered trademark of Corteva Agriscience and its affiliated companies.

Hybrid Highlights

- Good overall agronomics
- Impressive performance against key traited checks
- Best performance in zone with good southern movement as well
- Strong overall disease package, including *Goss's wilt*
- Dual-purpose potential

Agronomics

Staygreen	Above Avg
Greensnap	Above Avg
Stalks	Very Good
Roots	Above Avg
Early Vigor	Very Good
Drought Tolerance	Very Good
Test Weight	Very Good
Silage	Very Good

Water Management

Full Irrigation	HR
Limited Irrigation	HR
Rainfed	HR
Dryland (Stress)	HR

Disease Tolerance

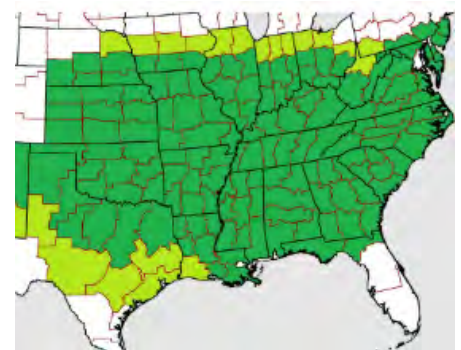
N. Corn Leaf Blight	Very Good
Gray Leaf Spot	Very Good
Southern Leaf Blight	Very Good
Goss's Wilt	Very Good
Common Rust	Above Avg
Southern Rust	N/A
Stalk Rot	Above Avg
Ear Rot	Above Avg

Management Response

Added Management	Very Good
Fungicide Response	Above Avg
Average Management	Very Good
Low Management	Very Good

Trait: CONV

Region Adaptability



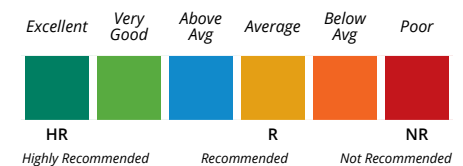
Soil Placement

Course (Droughty)	Very Good
Medium	Excellent
Heavy (Well Drained)	Very Good
Heavy (Poorly Drained)	Above Avg
Variable	Excellent

Rotation Management

Rotated Acres	HR
Continuous Corn	HR
Continuous Corn w/ Fungicide	R

Key





HB1550 | 115 RM

HARVEST BOUNTY® CORN

Plant Description

Plant Height	Med-Tall
Ear Height	Med-High
Leaf Angle	Semi-Upright
Leaf Color	N/A
Leaf Width	N/A
Silk Color	N/A
Anther Color	N/A
Kernel Cap Color	N/A
Kernel Row	18-20
Cob Color	Pink
Ear Length	Semi-Long
Ear Girth	Girthy
Ear Type	Semi-Flex
Husk Cover	Medium

Population Management

Yield Environment	Population Range
0-100	14000-20000
101-150	20000-28000
151-200	28000-32000
201-250	32000-35000
251-300	35000-42000

Herbicide Sensitivity

Growth Regulator	Acceptable
Sulfonyleureas Inhibitors (ALS)	Acceptable
Pigment Inhibitors (HPPD)	Acceptable

Yield Environment Placement

Tough	Excellent
Variable	Excellent
High Yield	Very Good



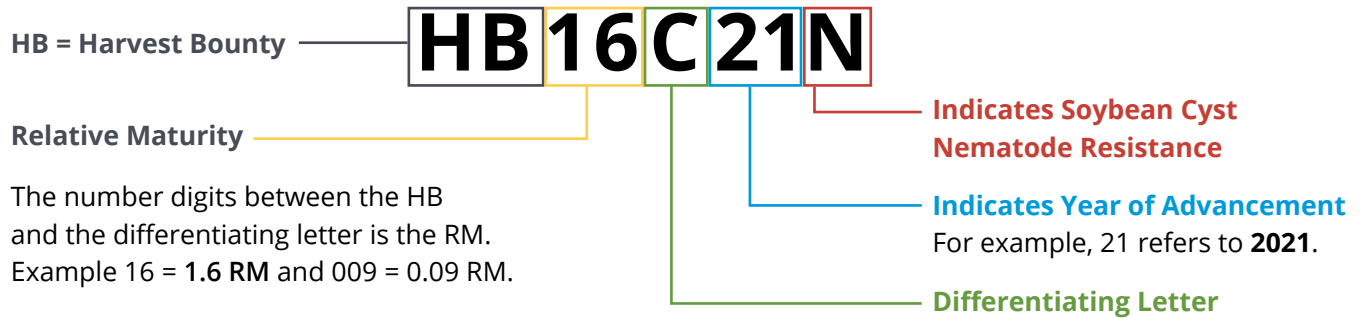
Performance may vary from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and consider the impacts of these conditions on the grower's fields. Always follow grain marketing and IRM requirements and pesticide label directions. Agronomic characteristics and ratings may vary with growing conditions and environment. Ratings are approximate and should not be considered as absolute. Ratings on new products are based on limited data and may change as more data are collected. Extreme or variable conditions may adversely affect performance. WILBUR-ELLIS logo, The Power of We, HARVEST BOUNTY, and HARVEST BOUNTY Logo are registered trademarks of Wilbur-Ellis Company LLC. DEKALB is a registered trademark of Bayer Group. Pioneer is a registered trademark of Corteva Agriscience and its affiliated companies.



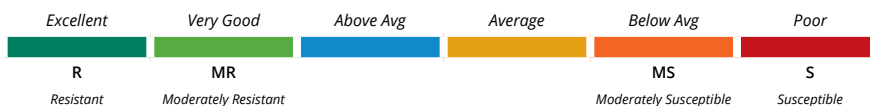
Harvest Bounty Soybean



HARVEST BOUNTY Soybean Numbering System



Agronomics Ratings Key



All agronomic characteristics and ratings may vary with growing conditions and environment. Ratings are approximate and should not be considered as absolute. Ratings on new hybrids are based on limited data and may change as more data are collected. Extreme conditions may adversely affect hybrid performance. The relative maturity of one hybrid to another remains reasonably constant; however, the actual number of calendar days from seeding to physiological maturity varies with date of planting, planting rate, temperature, day length, soil fertility, and other environmental factors.



Hybrid Highlights

- Conventional variety
- CALLING ALL SOUTH DAKOTA AND MICHIGAN ACRES!
- Versatile variety that works well across variable soils and yield environments
- Very good IDC tolerance
- Enhance SDS
- Caution fields with a history of SWM

Plant Characteristics

Flower Color	Purple
Pubescence Color	Light Tawny
Pod Color	Tan
Hilum Color	Brown
Plant Type	Medium Bush
Plant Height	Medium-Tall
Phytophthora Gene	Rps1k
SCN Gene	PI 88.788

Herbicide Tolerance

Glyphosate	No
Glufosinate	No
Dicamba	No
2,4-D Choline	No
STS	No

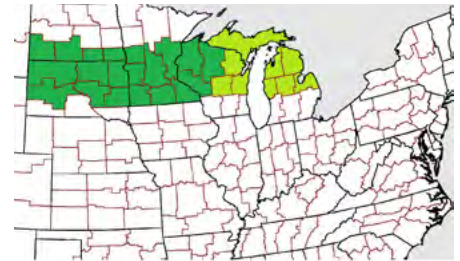
Agronomics

Emergence	Excellent
No-Till	Excellent
Wide Row Adaptation	Above Avg
Stress Tolerance	Excellent
Standability	Average
Chloride Sensitivity	N/A

Disease Tolerance

SDS	Poor
PRR Field Tolerance	Above Avg
IDC Tolerance	Very Good
BSR	Resistant
White Mold	Below Avg
Root Knot	N/A
Stem Canker	Resistant
Frogeye	N/A
Cercospora	N/A

Region Adaptability



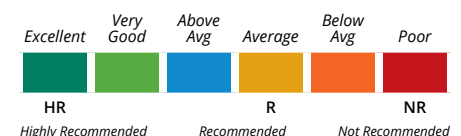
Yield Environment Placement

Tough	Excellent
Variable	Excellent
High Yield	Very Good

Soil Placement

Stress Prone	Excellent
Variable	Excellent
Poorly Drained	Above Avg
Highly Productive	Very Good

Key



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Hybrid Highlights

- Conventional variety
- ALL ABOUT THE YIELD!
- Exciting top end yield potential
- Excellent variety for those above average to high-yield environments
- Strong agronomic package
- Performance lifts with western movement

Plant Characteristics

Flower Color	Purple
Pubescence Color	Light Tawny
Pod Color	Tan
Hilum Color	Black
Plant Type	Bush
Plant Height	Medium-Tall
Phytophthora Gene	Rps 1k
SCN Gene	PI 88.788

Herbicide Tolerance

Glyphosate	No
Glufosinate	No
Dicamba	No
2,4-D Choline	No
STS	No

Agronomics

Emergence	Excellent
No-Till	Excellent
Wide Row Adaptation	Excellent
Stress Tolerance	Very Good
Standability	Above Avg
Chloride Sensitivity	N/A

Disease Tolerance

SDS	Average
PRR Field Tolerance	Above Avg
IDC Tolerance	Average
BSR	N/A
White Mold	Average
Root Knot	N/A
Stem Canker	Resistant
Frogeye	N/A
Cercospora	N/A

Region Adaptability



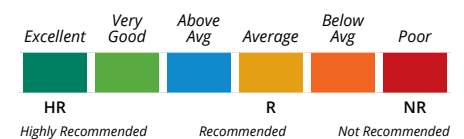
Yield Environment Placement

Tough	Very Good
Variable	Very Good
High Yield	Excellent

Soil Placement

Stress Prone	Above Avg
Variable	Very Good
Poorly Drained	Above Avg
Highly Productive	Excellent

Key



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Hybrid Highlights

- Conventional variety
- MUST HAVE!
- Broad acre variety with good east to west movement
- Good width for quick row closure
- Very good IDC tolerance
- Strong agronomic package for broad acre placement

Plant Characteristics

Flower Color	Purple
Pubescence Color	Light Tawny
Pod Color	Brown
Hilum Color	Black
Plant Type	Bush
Plant Height	Medium
Phytophthora Gene	NG
SCN Gene	PI 88.788

Herbicide Tolerance

Glyphosate	No
Glufosinate	No
Dicamba	No
2,4-D Choline	No
STS	No

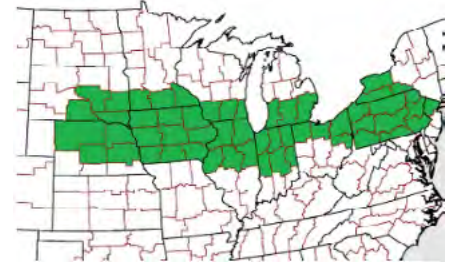
Agronomics

Emergence	Excellent
No-Till	Excellent
Wide Row Adaptation	Excellent
Stress Tolerance	Very Good
Standability	Above Avg
Chloride Sensitivity	N/A

Disease Tolerance

SDS	Above Avg
PRR Field Tolerance	Very Good
IDC Tolerance	Very Good
BSR	Below Avg
White Mold	N/A
Root Knot	N/A
Stem Canker	N/A
Frogeye	N/A
Cercospora	N/A

Region Adaptability



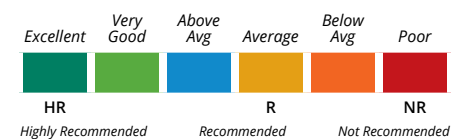
Yield Environment Placement

Tough	Very Good
Variable	Excellent
High Yield	Excellent

Soil Placement


Stress Prone	Very Good
Variable	Excellent
Poorly Drained	Above Avg
Highly Productive	Excellent

Key



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 consider the impacts of these conditions on the grower's fields. Always follow grain marketing and IRM requirements and pesticide label directions. Agronomic characteristics and ratings may vary with growing conditions and environment. Ratings are approximate and should not be considered as absolute. Ratings on new products are based on limited data and may change as more data are collected. Extreme or variable conditions may adversely affect performance. WILBUR ELLIS logo, The Power of We, HARVEST BOUNTY, and HARVEST BOUNTY logo are registered trademarks of Wilbur-Ellis Company LLC.





Harvest Bounty Product Guide



HARVEST BOUNTY®

**For Pricing and Availability please email
SeedHouseOrders@wilburellis.com
or call (402) 336-1250**

**Cover Crop Agronomist
Kevin Johannsen
kevin.johannsen@wilburellis.com
(605) 270-3081**

Pricing and availability subject to change.



The Seed House

87194 494 Ave, O'Neill, Nebraska
(402) 336-1250 | SeedHouseOrders@wilburellis.com



ALFALFA

ITEM NAME DESCRIPTION	SOIL ACCOMMODATIONS	PLANTING RANGE	DRILLING DEPTH	SEEDING RATE
BRONC® Excellent stand persistence. High resistance to bacterial wilt. Multi-race Aphanomyces resistance. Resistant to most main diseases of alfalfa. Fall Dormancy 3	Optimum pH: 6.7 - 6.9 (soil test and lime accordingly 12 months prior to seeding). Maintain P and K at optimal levels throughout life of stand. Soil test in fall and supplement as needed. Seed into a firm seed bed.	JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC	1/4" 1/2"	Drill: 15-20 lb/ac Broadcast: Not suitable Mix: 8-15 lb/ac
BRONC 4 BRAND Strongly adapted to Northwest growing conditions. Moderate regrowth rate suitable for hay production. Excellent overall disease resistance. Strong root rot resistance, including multi-race Aphanomyces. Fall Dormancy 4				
INTEGRA® 8410LH High resistance to potato leafhoppers. Great choice where leafhoppers are a significant pest. Very winter-hardy variety with strong persistence. Strong overall disease resistance. Excellent choice for variable soils due to strong root rot resistance, including multi-race Aphanomyces resistance. Fall Dormancy 4				
INTEGRA® 8418 Excellent overall disease resistance. Versatility for hay or haylage production. Very good winter hardiness and persistence. Strong root rot resistance, including multi-race Aphanomyces. Fall Dormancy 4				
INTEGRA® 8420 High resistance to stem nematode. Set the standard for persistence and fast recovery after cutting. Good overall plant disease resistance. Multifoliate trait for very good forage quality. Fall Dormancy 4				
INTEGRA® 8430 Excellent overall disease resistance. Versatility for hay or haylage production. Very good winter hardiness and persistence. Strong root rot resistance, including multi-race Aphanomyces. Fall Dormancy 4				
INTEGRA® 8444R Features Roundup Ready® herbicide technology. High resistance to stem nematode. Delivers yield, persistence, and quality in one alfalfa variety. Ideal choice for maximum tonnage and rapid regrowth after cutting. Attractive, dense leaf canopy at harvest. Fall Dormancy 4				
INTEGRA® 8460 Strongly adapted to Northwest growing conditions. Moderate regrowth rate suitable for hay production. Excellent overall disease resistance. Strong root rot resistance, including multi-race Aphanomyces. Fall Dormancy 4				
INTEGRA® 8471R Features Roundup Ready® herbicide technology. Strong disease, insect, and nematode resistance allows for broad adaptation from Northeast through Midwest, over to PNW. Perfect 30 Disease Resistance Index (DRI). Well suited for 3-4 cut systems. Excellent winter hardiness and cold tolerance. Fall Dormancy 4				
INTEGRA® 8520 High forage yield for 4-5 cut systems. Moderately fast regrowth rate. Excellent overall disease resistance. Strong root rot resistance, including multi-race Aphanomyces. Fall Dormancy 5				
INTEGRA® 8562R Features Roundup Ready® herbicide technology. Excellent persistence and pest resistance, as well as high resistance to stem nematodes. Perfect 30 Disease Resistance Index (DRI). High yielding variety best suited for 4-6 cut systems. Fall Dormancy 5				
CREEPING ALFALFA (NOT INOCULATED)				Drill: 15 lb/ac Interseeding: 3-5 lb/ac
CREEPING ALFALFA (PRE-INOCULATED) Expresses a creeping root rather than a taproot like other alfalfas. This makes it an excellent fit in new pasture seedings with grass, or as a reliable legume to interseed into the existing pasture. Tolerant to grazing and have a high level of winter hardiness as well as drought tolerance.				

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 consider the impacts of these conditions on the grower's fields. Always follow grain marketing and IRM requirements and pesticide label directions. Agronomic characteristics and ratings may vary with growing conditions and environment. Ratings are approximate and should not be considered as absolute. Ratings on new products are based on limited data and may change as more data are collected. Extreme or variable conditions may adversely affect performance.


























COVER CROPS














ITEM NAME DESCRIPTION	SOIL ACCOMMODATIONS	PLANTING RANGE	DILLING DEPTH	SEEDING RATE
BUCKWHEAT Quick-growing, broadleaf summer annual. Ready to incorporate in 35 to 45 days. Potential for multiple plantings per year. Capable of being harvested for grain in 70 to 90 days. Very competitive with tough weeds like giant ragweed and Canada thistle. Residue breaks down rapidly. Mellows soil and breaks up surface compaction. Easily terminated, at first sign of flowering, to avoid volunteer buckwheat. Reproduces annually by seeding.	Thrives on nutrient deficient soils. Excellent scavenger of P and other nutrients. Sensitive to frost, drought, excessive heat, and any carryover herbicides.	June-July	1/4" 1/2"	Drill: 50-100 lb/ac Broadcast: Not recommended Mix: 15-25 lb/ac
BUSTER RADISH Vigorous taproot accumulates leachable nutrients, protects soil, improves infiltration, and mitigates compaction. Plants break down completely by spring; no need for fall or spring tillage. Will likely winter-kill in Upper Midwest. Reproduces annually by seeding.	Adapted to most soil types.	August-September	1/4" 1/2"	Drill: 6-8 lb/ac Broadcast: 8-9 lb/ac Mix: 2-3 lb/ac
CAMELINA - WINTER Fall-seeded winter annual brassica excellent for cover cropping. Winter hardiness similar to winter rye. Only brassica that consistently overwinters. Can be grown as winter annual oilseed for double cropping. Harvested late June. Excellent following soybeans before corn.	Excellent nutrient scavenger. Competitive with weeds early in the season.	September-October	1/4"	Drill: 3-5 lb/ac Broadcast: 5-6 lb/ac Mix: 1-2 lb/ac
CHICORY FORAGE Not a grass, but a perennial. Broadleaf that produces leafy growth, has a deep taproot, and is very persistent. Provides both spring and summer forage. High in nutrition and mineral content (if properly managed). Loses palatability when allowed to head out. Excellent companion for grass pastures.	Well adapted from heavier-to-lighter soils. Is drought tolerant.	March-May	1/8" 1/4"	Drill: 4-6 lb/ac Broadcast: 5-8 lb/ac Mix: 2-3 lb/ac
COLLARDS FORAGE One of the most winter-hardy brassicas available. Provides excellent early summer through winter grazing. Collards have superior forage quality, palatability, reduce soil erosion, and compaction. Excellent at scavenging excess nutrients remaining from the previous crop.	Thrives under a wide range of conditions. Is drought tolerant.	March-Early October	1/4" 1/2"	Drill: 5-8 lb/ac Broadcast: 8-12 lb/ac Mix: 1-3 lb/ac
COWPEAS - IRON CLAY Highly productive warm-season, annual legume that works well in pastures, hay, and silage. Rapid germination and growth quickly shade the ground, which provides weed control. Deep taproot (can reach 8 feet) prevents soil erosion and reduces compaction. Cowpeas are also a great protein source and addition to any warm season mix.	Prefers hot, wet conditions and is drought tolerant (better than soybeans). Fixes up to 150 lb/ac of N. Ready to plowdown 60-90 days after planting. Recommend inoculating.	June-August Planting at soil temp > 65°.	1/2" 1"	Drill: 50-75 lb/ac Broadcast: Not recommended Mix: 25-35 lb/ac
FABA BEANS Tall, bushy annual legume that can produce 3.5-6 tons/ac DM as a cover crop. Large taproot breaks up compaction. Good forage for hay or silage.	Adaptable to most soil types but thrives under cool, wet conditions. Somewhat frost tolerant but is not heat and drought tolerant. Fixes up to 140 lb/ac of N.	Early spring or August-October	1/2" 1" 1 1/2" 2"	Drill: 10-70 lb/ac Broadcast: 80-95 lb/ac Mix: Variable
FLAX Cool season annual broadleaf. Used to diversify cover crop mixtures at nearly any point in the growing season. High level of lignin makes it a residue-building species that will not be highly selected for by grazing livestock.	Adaptable to most soil types.	Early spring-August	3/4" 1" 1 1/4"	Drill: 30-50 lb/ac Broadcast: 55-60 lb/ac Mix: Variable
KALE Economical, cold-tolerant choice for grazing. Highly palatable and can be grazed late into fall. Looks similar to turnip and radish early in establishment.	Prefers well-drained soils rich in organic matter. Is frost tolerant.	March-May July-September	1/4" 1/2"	Drill: 3-4 lb/ac Broadcast: 4-5 lb/ac Mix: 1-2 lb/ac
LENTILS Short-stature, cool season legume very well suited for cover cropping. Smaller seed size makes it ideal for aerial application into standing crops. Winter-kills in the Upper Midwest but can be spring planted.	Drought- and frost-tolerant; suited for all soil types. Fixes a good amount of N.	March-May July-September	1/2" 1" 1 1/2"	Drill: 40-50 lb/ac Broadcast: Not recommended Mix: Variable
MUNG BEANS Warm season legume planted later in the season (after small grain harvest). A shorter season and more determinate cousin to cowpeas with smaller seed size. Equally drought- and heat-tolerant. Great when growing season is limited. Mostly upright and slightly spreading, this low water use plant is a good addition to grazing mixes with crude protein ranging from 16-22%.	Adaptable to most soil types. Is drought tolerant.	Summer	1" 2"	Drill: 20-25 lb/ac Broadcast: 30-40 lb/ac Mix: Variable



ITEM NAME DESCRIPTION	SOIL ACCOMMODATIONS	PLANTING RANGE	DRILLING DEPTH	SEEDING RATE
MUSTARD - YELLOW Economical choice for cover cropping. Good fit if frost seeded before soybeans or flown in fall. Very fast growing. Does not thrive in mixtures. Control plant at first flower to avoid seed set, which may lead to unwanted volunteers.	Thrives in cooler conditions and is easy to establish when sufficient moisture is available. Mustard needs sufficient N and S for optimum growth with the ideal ratio being 6:1.	February-April August-September	1/4" 	Drill: 15-20 lb/ac Broadcast: 20-25 lb/ac Mix: 3-5 lb/ac
MUSTARD - BROWN Brown mustard will be utilized in a very similar manor as yellow mustard. Produces more overall biomass with two weeks longer to reach maturity. The glucosinolates are more beneficial for suppressing soil-borne pathogens/nematodes. Producing a thick tap root that penetrates 1-3 ft into the soil profile, with a thick fibrous root system similar to cereal crops at the surface, which eco-tills the soil with living roots.		March-May August-September	1/2"  3/4" 	Drill: 5-8 lb/ac Broadcast: 10-15 lb/ac Mix: Variable
OKRA Warm season broadleaf vegetable that has a deep taproot, which reduces compaction. This fast growing plant provides a large canopy, long-lasting residue, and winter snow catch. Livestock will graze okra, as the pods are high in vitamin A, C, and K.			1/2" 	Drill: 15 lb/ac Broadcast: Not recommended Mix: Variable
RAPESEED Versatile cool season (winter or spring) annual brassica that can be utilized in a wide array of mixtures. It can provide a great emergency forage source in just 8-10 weeks, which can be grazed multiple times. Use in spring mixtures where a brassica is desired because it will be the slowest species in the brassica family to flower and produce seed. This will allow your mixture to grow longer before termination is required.	Adaptable to most soil types. Performs best when sufficient N and S are present; preferable ratio is 7:1.	August-Early October	1/2"  3/4"  1" 	Drill: 4-8 lb/ac Broadcast: 8-12 lb/ac Mix: Variable
SAINFOIN SAINFOIN - ORGANIC Non-bloating legume that performs well in a rangeland mix or as stand-alone replacement for alfalfa. Deep-rooting system breaks up soil compaction and increases water infiltration.	Performs best on well-drained or sandy soils; will not perform well on wet soils (prone to root/crown rot). Is highly drought tolerant.	April-May August-September	1/4"  1/2"  3/4" 	Drill: 30-34 lb/ac Broadcast: 40-45 lb/ac Mix: Variable
SUNFLOWER Fast growing summer annual broadleaf best used for weed suppression. Extensive root system breaks up compaction. Attractive flowers for pollinators. Very tall providing a large amount of biomass back into the soil to increase soil organic matter.	Performs best on well-drained or sandy soils; will not perform well on wet soils (prone to root/crown rot).	April-August	1/2"  1"  1 1/2" 	Drill: 10-15 lb/ac Broadcast: Not recommended Mix: 1-2 lb/ac
SUNN HEMP Tall-growing, warm-season annual legume that is quick growing with tremendous biomass and N-fixing capacity. Has the potential to put on over 5,000 lbs of biomass in 60 days. Terminate crop at first flower to avoid fibrous stalks.	Thrives on poor soils. Plant when soil temperatures are > 65°F. Does not perform well in low pH soils. Is very heat- and drought-tolerant. Recommend inoculating.	June-August	1/2"  3/4"  1" 	Drill: 12-20 lb/ac Broadcast: Not recommended Mix: 4-8 lb/ac
TURNIP - PURPLE TOP Hardy, large-rooted brassica that produces abundant high quality forage below and above ground. Can yield up to 4 to 6 tons of DM/acre. High energy feed with 85% total digestible nutrients and 10% protein. Roots grow about half above ground. Best used for grazing or as a cover crop. Has been pastured successfully with up to a foot of snow. Ready to graze in 60-90 days.	Prefers fertile, moderately deep, slightly acidic loam soil. Does not do well in clay, wet, or poorly drained soils. For good root growth turnips need a loose, well aerated soil. Add 50-100 lbs N and medium rates of K and P.	March-May July-September	1/4"  1/2" 	Drill: 3-5 lb/ac Broadcast: 5-6 lb/ac Mix: 1-2 lb/ac
VETCH - HAIRY VETCH - HAIRY - ORGANIC Winter-hardy legume with a great rooting system (tap root will extend 1-3 feet) that works well as a cover crop or erosion control. Its rapid growth makes it an excellent weed suppressant. Can be used to produce a high protein content forage or N source for grain crops.	Adapted to most soil types, but prefers well-drained soils. Is drought tolerant and has the potential to withstand freezing temperatures.	Early spring August-October	1/2"  1" 	Drill: 40-55 lb/ac Broadcast: 60-75 lb/ac Mix: 15-30 lb/ac
VETCH - VNS Viney legume with compound leaves. Good growth for cover cropping if seeded early in the fall. Excellent candidate for aerial application. Due to VNS it has the potential to winter-kill.		August-September	1 1/2" 	



COVER CROPS | BLENDS

ITEM NAME DESCRIPTION	SOIL ACCOMMODATIONS	PLANTING RANGE	DRILLING DEPTH	SEEDING RATE	MIX DEFINITIONS
HB COOL BALANCE FLEX Cool-season blend for late-season grazing and building residue to create organic matter.	If fertility is low, apply 25-50 lb/ac of N.	Late summer - early fall	1/2" 	Drill: 20 lb/ac Broadcast: 25 lb/ac	Purple Top Turnip 25%, Cover Crop Radish 25%, Flax 15%, Oats 30%, Rapeseed 5%
HB BALANCE FLEX Blend that can be grazed as soon as there is adequate growth with no toxicity issues and grazed evenly. It also works to create residue and reduce compaction.	If fertility is low, apply 25-50 lb/ac of N.	Mid/late summer. Minimum of 45-60 days growth before a frost.	1/2" 	Drill: 12 lb/ac Broadcast: 15 lb/ac	Turnip 30%, Cover Crop Radish 20%, Sorghum Sudangrass 25%, Flax 10%, Cowpeas 15%
HB KS GRAZER Blend that provides good nutrient value to grazing animals all season long, even in drier conditions. The sorghum sudan provides volume while the cowpeas, collards, and chicory bring persistent growth due to their deep roots. All varieties in the blend bring good nutrient value if it is grazed regularly.	Adaptable to moist soil types. Is drought tolerant.	March - May	1/2"  1"  1 1/2" 	Drill: 25 lb/ac Broadcast: N/A	Cowpeas 9%, BMR Sorghum Sudan 20%, Goliath Oats 36%, Forage Collards 4%, Radish 4%, 4010 Forage Peas 8%, Chicory 1%, Okra 8%
HB KS COVER CROP Fast growing blend that can be seeded late in the season. The drought resistance in the varieties allows the later planting date to still yield a high volume of biomass. This adds organic matter back into soils. Also provides a good nutrient value for grazing animals.	Adaptable to most soil types. Is drought tolerant.	March - May, August - September	1/2"  1"  1 1/2" 	Drill: 25 lb/ac Broadcast: N/A	Cowpeas 16%, Mung Beans 8%, Foxtail Millet 4%, Spring Oats 36%, Sorghum Sudan 11%, Radish 4%, Rapeseed 2%, Sunflower 4%, Buckwheat 12%, Chicory 1%, Okra 3%
HB DEEP ROOTS MIX Mix that sends deep tap roots down to alleviate compaction. Can be grazed, however recommend to supplement livestock due to high moisture content. Consider blending 1-2 BU of rye to this mix to increase your forage tonnage and palatability for grazing.	If fertility is low, apply 25-50 lb/ac of N. If unwanted grasses emerge, use clethodim when grasses are 2-4" tall.	Late summer - early fall. Can tolerate light frost and continue to grow in the fall.	1/2" 	Drill: 8 lb/ac Broadcast: 10 lb/ac	Cover Crop Radish 40%, Rapeseed 30%, Purple Top Turnip 30%
HB NUTRIENT 7 BLENDER Diverse blend used to improve soil for next year's cash crop. Fixes nitrogen, builds organic matter, and alleviates compaction. Also helps increase the soil's microbial activity. Not recommended for livestock grazing.	Applying 25-50 lb/ac of N at planting to increase total biomass production. Plant into a clean, weed-free seedbed.	Mid/late summer or planting during late spring and using as a full-season cover.	3/4" 	Drill: 25 lb/ac Broadcast: 30 lb/ac	Cover Crop Radish 30%, Common Vetch 20%, Flax 15%, Crimson Clover 15%, Oats 10%, Sunn Hemp 5%, Peas 5%
HB LATE GRAZIER Blend of warm season grasses and forage brassicas for a summer annual grazing system. It is also commonly used as a cover crop following early harvest of a small grain or spring forage. Can be planted early in the summer and used as a rotational grazing system, or planted later in the summer and used for stockpiled fall and winter grazing.	Apply 20 lbs of N, 5 lbs of P, and 20 lbs of K per ton of forage produced. Apply a 1/2 rate before or immediately after planting, and the other 1/2 30 days after emergence. Do not exceed a total of 10 lb/ac of N+K if fertilizer is placed in-furrow at planting.	Late spring – mid-summer	1/2"  3/4" 	Drill: 15 lb/ac Broadcast with Rolling: 15 lb/ac	Millet 25%, Turnip 25%, Sorghum Sudan 20%, Brassica 20%, Radish 10%
HB GRAZIER PLUS Predominantly a warm season mix that is very well suited for grazing. This mix will perform well as a multipurpose blend in the tough conditions of western environments. It can be grazed as soon as there is adequate growth to support livestock, although it is best to wait until the sorghum sudangrass is at least 18"-20" tall. Regrowth potential on the blend is very good, so multiple grazing passes is an option under good growing conditions. Avoid grazing for 5-7 days following a killing frost. The entire mix is then safe to graze for the remainder of the fall and winter.	If grazing is intended and soil fertility levels are low, consider applying 25-50 lb/ac of N at planting to increase total biomass production. Plant into a clean, weed-free seedbed.	Late spring – mid-summer	3/4" 	Drill: 20 lb/ac Broadcast: 25 lb/ac	Sorghum Sudangrass 20%, Peredovik Sunflowers 15%, Common Vetch 5%, German Millet 10%, Rapeseed 10%, Turnips 10%, Oats 15%, Crimson Clover 5%, Flax 5%, Winfred Brassica 5%



ITEM NAME DESCRIPTION	SOIL ACCOMMODATIONS	PLANTING RANGE	DRILLING DEPTH	SEEDING RATE	MIX DEFINITIONS
HB STOCK BALANCER Designed for broadcasting or drilling applications. Created for the cattleman in mind to graze longer in the fall after corn harvest. This mix is to be interseeded into your wide row corn fields between V3-V8 of your corn growth. This diverse cocktail of brassica legumes and cool season grasses will balance your livestock gut out on stalks.	Plant into a clean, weed-free seedbed.	Early – mid-summer	1/4"	Drill: 20 lb/ac Broadcast: 25 lb/ac	Annual Ryegrass 25%, Rapeseed 15%, Purple Top Turnip 12.5%, Brassica 10%, Crimson Clover 10%, Radish 10%, Oats 12.5%, Buckwheat 5%
BOUNTY BLEND PEAS/BARLEY 6040 60/40 Barley/Pea blend commonly used as a spring forage option for hay and livestock growers. Produces high tonnage and is high in digestibility and crude protein while not sacrificing yield.	Avoid wet ground. Prefers cool weather.	March - April, August - September	1"	Drill: 100 lb/ac	
BOUNTY BLEND PEAS/OATS 6040 60/40 Pea/Oat blend commonly used as a spring forage option for all classes of livestock producers looking to increase tonnage and quality in their annual hay or haylage crops. Forage peas are very high in digestibility and crude protein and do not sacrifice yield. The oats in the blend ensure good dry matter yield and provides structure for the peas to grow upwards.	Apply 20 lbs of N, 20 lbs of P, and 45 lbs of K per ton of forage produced. If soil fertility levels are low, consider applying 25 lb/ac of N between planting and mid- to late-tillering. Do not exceed a total of 25 lb/ ac of N+K if fertilizer is placed in-furrow.	Early spring Can tolerate any light frost that may occur after planting.	1 1/2" 1 3/4" 2"	Drill: 100 lb/ac Broadcast: N/A	

CONTACT WITHIN ABOUT THESE STANDARD BLENDS.
WE CAN ALSO CUSTOMIZE ANY REQUESTED VARIETY, QUANTITY,
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The Seed House®

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CALIFORNIA BLENDS

ITEM NAME DESCRIPTION	DRILLING DEPTH	SEEDING RATE	MIX DEFINITIONS
HB #1 SOIL BUILDER Biomass/green manure mix. Net N fixation/OM increase. Young trees, all vines. Soil imp./ water infiltration	1" 2" 	Grain/Cover Crop Drill: 100 lb/ac	35% Bell Beans, 15% Biomaster Peas, 15% Common Vetch, 35% Triticale
HB #2 SOIL BUILDER Biomass/green manure mix. Higher carbon content. Young trees, all vines. Soil imp./ water infiltration	1" 2" 	Grain/Cover Crop Drill: 100 lb/ac	30% Cayuse Oats, 30% Common Barley, 20% Dundale Peas, 20% Faba Beans
HB #3 ALL LEGUMNE SOIL BUILDER Biomass/green manure mix. Net N fixation/OM increase between row crops, trees. Soil improvement	1" 2" 	Grain/Cover Crop Drill: 100 lb/ac	40% Bell Beans, 40% Peas, 20% Common Vetch
HB #4 KISS BLEND Biomass/green manure mix. High carbon content. Forage mix, trees, vines. Soil imp./ water infiltration	1" 2" 	Grain/Cover Crop Drill: 75-100 lb/ac	20% Red Oats, 30% White Oats, 10% Beardless Barley, 40% Beardless Wheat
HB #5 DRIP CLOVER BLEND Reseeding annual clover mix. Moderate N fixation soil coverage, mulch postbloom pollinator food returns for several years (Organic coat on untreated seed)	1/4" 1/2" 	Brillion, Cover Crop Drill: 20-30 lb/ac	20% Crimson Clover, 10% Persian Clover, 10% Balansa Clover, 15% Rose Clover, 30% Subclover, 15% Medics
OLD CHICO BLEND Biomass/green manure mix. High carbon content. Soil imp./ water infiltration. Pollinator forage trees, vines between crops	1" 2" 	Grain/Cover Crop Drill: 75-100 lb/ac	Spring Triticale, Canola, Mustard, Radish
HB #6 GRASS AND CLOVER SOD BLEND Perennial sod mix. Field access self-sustaining soil coverage, mulch. Cherries, prunes, citrus	1/4" 1/2" 	Brillion, Cover Crop Drill: 25-60 lb/ac	35% Turf Type Perennial Ryegrass, 25% Creeping Red Fescue, 10% Chewings Fescue, 10% PK White Clover, 10% PK Hykon Rose Clover, 10% PK Trefoil
HB #7 DOUBLE CLOVER BLEND Perennial sod mix. Clovers field access soil coverage, mulch. Potential for high N fixation (Organic coat on untreated seed)	1/4" 1/2" 	Brillion, Cover Crop Drill: 15-25 lb/ac	70% PK New Zealand White Clover, 30% PK Strawberry Clover, 10% PK White Clover, 10% PK Hykon Rose Clover, 10% PK Trefoil
HB #8 LOW SOD BLEND Perennial sod mix. Field access self-sustaining soil coverage, mulch. Cherries, prunes, citrus		25-60 lb/ac	50% Fine Fescue Blend, 50% Turf Type Perennial Ryegrass, 10% PK White Clover, 10% PK Hykon Rose Clover, 10% PK Trefoil
HB #9 BROME BLEND Perennial sod mix. Field access soil coverage, mulch. Perennial & reseeding grasses. Water infiltration increased vines, high water tables		25-60 lb/ac	20% Annual Ryegrass, 25% Smooth Brome, 25% Prairie Brome, 30% Blando Brome
HB #10 EROSION/DRIP MIX Reseeding annual mix. Soil surface protection. Self-sustaining soil coverage, mulch. Hilly terrain trees, vines. Residue management trees, vines, erosion prone	1/4" 1/2" 	Brillion, Cover Crop Drill: 25-60 lb/ac	35% Blando Brome, 25% Annual Ryegrass, 10% Rose Clover, 3% Balansa Clover, 3% Perian Clover, 15% Crimson Clover, 7% Medic, 2% California Poppy
HB #11 'HOT STUFF' MUSTARD BLEND Biomass/green manure mix. Potential soil pest control weed competitor sequesters soil nitrates. Soil Imp./ water infiltration. Young trees, vines, between crops	1/4" 1/2" 	Brillion, Cover Crop Drill, Broadcast: 8-15 lb/ac	30% White Mustard, 30% Nemfix Black Mustard, 10% Canola, 10% Diakon Radish, 20% Oriental Mustard
HB #12 FALLOW BED IMPROVEMENT MIX Biomass/green manure mix. Soil Imp./ water infiltration, soil coverage, mulch. Between crops. Grain/Cover Crop Drill 1-2"	1" 2" 	Grain/Cover Crop Drill: 100 lb/ac	50% Winter Triticale, 50% Spring Peas

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PASTURE/HAY/TURF

ITEM NAME DESCRIPTION	SOIL ACCOMMODATIONS	PLANTING RANGE	DRILLING DEPTH	SEEDING RATE
BIRDSFOOT TREFOIL Deep-rooted, winter-hardy perennial legume with yellow blossoms. Does not cause bloat when grazed. Holds its leaves at maturity better than clovers and alfalfa but challenging to dry and harvest for hay. Slow establishment and potentially invasive habits. Best used for grazing, long-term pasture, or cover plant for roadsides and wildlife.	Tolerant of poorly drained, saline, acidic, or alkaline soils. Allow self-seeding every 3 years to maintain stand life.	February - May, July - August Can be frost seeded.	1/4" 1/2"	Drill: 2-4 lb/ac Broadcast: 2-4 lb/ac Mix: 6-10 lb/ac
BROMEGRASS FLEET BROMEGRASS FLEET - ORGANIC Exceptional winter hardiness. Leafier, more palatable, and more fall production than smooth brome.	Grows best on well-drained, silt-loam, or clay-loam soils.	March - May, August	1/4" 1/2"	Drill: 15 lb/ac Broadcast: 20 lb/ac Mix: 2-5 lb/ac
BROMEGRASS SMOOTH BROMEGRASS SMOOTH - ORGANIC Sod-forming and very persistent. Excellent for erosion management on slopes. Resistant to drought and extreme temperatures. Best for long-term pastures.	Grows best on well-drained, silt-loam, or clay-loam soils.	March - May, August	1/4" 1/2"	Drill: 15 lb/ac Broadcast: 20 lb/ac Mix: 2-5 lb/ac
HB COOL SEASON MIX Suitable for all classes of livestock. Economical mix that includes 6 grass varieties with high yields and improved forage quality. Value may be added to grazing acres by seeding one half of the pasture to this mixture and one half to a warm-season mixture. These separate pastures can be used in a rotation to provide high producing forage all season long. <i>MIX: Festulolium, Intermediate Wheatgrass, Orchardgrass, Pubescent Wheatgrass, Meadow Bromegrass, Smooth Bromegrass, and Timothy.</i>	Suitable for a wide variety of soil types.	Early spring, late summer	1/4" 1/2"	Drill: 15-18 lb/ac Broadcast: 20-30 lb/ac
HB 4-WAY BLEND This is a basic blend for use in pastures and hay meadows. Works well for a season-long rotational grazing system. <i>MIX: Smooth Brome, Timothy, Orchardgrass, Perennial Rye.</i>	Suitable for a wide variety of soil types.	Early spring, late summer	1/4" 1/2"	Drill: 12-14 lb/ac Broadcast: 16-20 lb/ac
FESTULOLIUM Cross between meadow fescue or tall fescue and perennial or Italian ryegrass. Combines grass' quick establishment, high feed value, production, and palatability with fescue's persistence and summer productivity. High sugar content that is easily digested, allowing animals to gain a high-energy ratio for milk/meat conversion. Provides excellent season-long forage. When mixed with alfalfa or clover, provides companion to enhance palatability and quality.	Suited for medium-heavy soils. Seed with other legumes or grasses.	March - May, August	1/4" 1/2"	Drill or Broadcast: 25-40 lb/ac (clear seeding), 15-20 lb/ac (overseeding) Mix: 5-10 lb/ac
FOXTAIL CREEPING Well-suited for pasture or hay production and palatable to all classes of livestock and wildlife. Because it does not undergo dormancy during the summer, it produces high yields of palatable forage all season long.	Suitable for seeding around ponds, lakes, and waterways. Tolerates excessive moisture and moderate levels of saline.	Spring or fall	1/4" 1/2"	Drill: 1-3 lb/ac Broadcast: 2-6 lb/ac Mix: 1-3 lb/ac
ORCHARDGRASS A bunch-type, tall-growing, cool-season perennial grass that regrows quickly with good winter hardiness and drought tolerance. Commonly used in pasture and hay mixtures.	Suitable for most soil types, but prefers well drained soils. Mixes well with legumes.	March - May, August	1/4" 1/2"	Drill: 8-12 lb/ac Broadcast: 8-12 lb/ac Mix: 3-5 lb/ac
REED CANARYGRASS Tall-growing, high-yielding, sod-forming perennial grass with excellent winter hardiness and disease resistance. Best used for haying or pasture. Excellent quality if cut or grazed early.	Adapted to wet soils, can persist in standing water. Tolerant to drought conditions and acidic soils.	March - May, August	1/4" 1/2"	Drill: 8-10 lb/ac Broadcast: 16-20 lb/ac Mix: 2-4 lb/ac
RYEGRASS ANNUAL Rapid growing with an extensive root system that builds soil structure and holds soil in place. Single year forage production or as green manure plowdown. Heads out in early- to mid-summer. Usually winter-kills in northern zones.	Well adapted to heavier soil types.	Fall	1/4" 1/2"	Drill: 12-15 lb/ac Broadcast: 20-25 lb/ac Mix: 6-10 lb/ac
RYEGRASS ITALIAN High quality forage with early spring development, quick regrowth, and prolonged fall vigor. Will not head out in the seeding year unless a hard freeze sets in after seed has germinated. Behaves as an annual in the Upper Midwest. Recognized as excellent rotation crop for plowdown or emergency feed. Best suited as a pasture crop seeded at full rate. When seeded at lower rate, can be used in hay mixtures and as a nurse crop for alfalfa seedings.	Well adapted to heavier soils, poor drought tolerance.	March - May, August (for late fall grazing)	1/4" 1/2"	Drill: 20-25 lb/ac Broadcast: 20-25 lb/ac Mix: 8-12 lb/ac



ITEM NAME DESCRIPTION	SOIL ACCOMMODATIONS	PLANTING RANGE	DRILLING DEPTH	SEEDING RATE
RYEGRASS PERENNIAL - FORAGE Establishes rapidly, excellent wear tolerance. Relatively high-yielding, high nutrient value. Grows from 1-2 ft. tall. Recovers rapidly and tillers extensively. Best used for grazing or haylage in mixture with red clover or white clover.	Best on heavier, moisture-holding soils. Not suited for sandy ground.	March - May, August Can be frost seeded early spring in permanent pasture.	1/4"  1/2" 	Drill: 12-15 lb/ac Broadcast: 20-25 lb/ac Mix: 6-10 lb/ac
SWITCHGRASS - BLACKWELL SWITCHGRASS - CAVE-IN-ROCK SWITCHGRASS - VNS Warm season, native bunch grass that is winter-hardy and drought tolerant. The height and extensive root system of switchgrass can cause it to become dominant over time in mixtures with other natives. It has moderate salt tolerance and can be used for soil conservation, warm season pasture, hay, and wildlife habitat.	Prefers lowlands but is adapted to a wide range of soils and climates including sand.	April - May, August	1/4"  1/2" 	Drill: 5-8 lb/ac Broadcast: 8-10 lb/ac Mix: 1-3 lb/ac
TALL FESCUE - MEADOW Highly productive, winter-hardy bunch grass that is more persistent than perennial ryegrass. Strong summer production under hot, dry conditions. Works well in long-term pastures due to its nutrient value and palatability. Low endophyte.	Grows in cool, moist conditions and tolerates wet soils with occasional flooding. Can reach 30" tall in rich soil.	March - May, August - September	1/4"  1/2" 	Drill: 8-10 lb/ac Broadcast: 12-15 lb/ac Mix: 6-12 lb/ac
TALL FESCUE - VNS Works well as a companion grass with alfalfa because it establishes and matures at similar rates. Deep rooted, hardy, bunch-type grass. Its extensive root system helps withstand drought conditions. More productive in midsummer than brome. Suitable for hay or pasture. Can be seeded in pure stands or with other grasses or legumes. Ideal for winter stockpiling as cut hay or pasture.	Adapted to all soil types from drought-prone to poorly drained and wet soil.	March - May, August	1/4"  1/2" 	Drill: 20-25 lb/ac Broadcast: 12-15 lb/ac Mix: 4-12 lb/ac
HARD FESCUE Fine-bladed fescue species with bluish-green appearance. Bunch-type growth and relatively slow growing. Toughest of all the fescues, most drought resistant, shade tolerant, and disease resistant.	Adapted to most soil types. Does not require fertilizer or watering.	February - May, August - September	1/4"  1/2" 	Drill: 5-10 lb/ac Broadcast: N/A Mix: Not Recommended
TEFF Highly productive warm-season grass used for haying or grazing. Its fine stems and blades make it highly palatable for all classes of livestock. It also has a high crude protein level. Harvest in pre-boot to early boot stage about 45-50 days after planting. Leave 3-4 inches when cutting or grazing.	Needs at least 50 lbs N, adequate P, K, and S.	Late May - late July (soil 62°F+)	1/8"  1/4" 	Drill & Roll: 8-12 lb/ac Broadcast & Roll: 8-12 lb/ac Mix: Not Recommended
TIMOTHY A shallow-rooted, perennial, cool-season grass well adapted to the Upper Midwest. Very winter-hardy and palatable. Better for hay crop than as a pasture species. Usually mixed with alfalfa or clover for hay or pasture. Preferred grass in horse hay.	Best production is on heavy ground and cooler climates.	March - May, August Can be frost seeded.	1/4"  1/2" 	Drill: 6-8 lb/ac Broadcast: 12-16 lb/ac Mix: 1-2 lb/ac
WHEATGRASS - INTERMEDIATE A long-lived, cool-season grass with short rhizomes and a deep-feeding root system. Produces good hay yields, both individually and with alfalfa. Provides excellent spring, early summer, and fall pasture, but must be carefully managed to ensure maintenance of the stand and high production. Responds well to irrigation in a single cutting system and will outyield smooth brome.	Prefers well-drained, loamy soils. Will tolerate slightly acidic to mildly saline conditions and is cold tolerant.	March - Mid-May, August	1/4"  1/2" 	Drill: 10-12 lb/ac Broadcast: N/A Mix: Variable
CLOVERS				
ALSIKE CLOVER ALSIKE CLOVER - ORGANIC Perennial used for hay, pasture, and soil improvement. Performs well in mixes.	Grows in moist and acidic soils (down to pH of 5.0). Performs best on wetter ground; tolerant of occasional flooding and poorly drained soils.	February - May, July - August Can be frost seeded.	1/4" 	Drill: 1-3 lb/ac Broadcast: 3-5 lb/ac Mix: 6-10 lb/ac
BALANSA CLOVER (FIXATION ANNUAL) Quick-establishing, cool-season, annual legume that produces good biomass accumulation and N fixation. More cold tolerant than crimson clover; can potentially overwinter or be used as an early fall cover crop after silage corn, small grains, or early soybeans. Can be included in cover crop and grazing mixes.	Very cold tolerant and adapted to a wide range of soil types.	February - March, August - September	1/4" 	Drill: 3-6 lb/ac Broadcast: 5-8 lb/ac Mix: 1-4 lb/ac
BERSEEM CLOVER (SUMMER ANNUAL) Fast-growing annual for quick biomass. Fixes up to 100 lbs N at flowering. Excellent early fall cover crop potential after silage corn, small grains, or early soybeans. Slightly more cold tolerant than crimson but usually winter-kills.	Adapted to a wide range of soil types.	May - June, August - October	1/4" 	Drill: 10-15 lb/ac Broadcast: 15-18 lb/ac Mix: 2-8 lb/ac








ITEM NAME DESCRIPTION	SOIL ACCOMMODATIONS	PLANTING RANGE	DRILLING DEPTH	SEEDING RATE
BERSEEM CLOVER - FROSTY (SUMMER ANNUAL) Bred for later maturity, cold tolerance, productivity, and nutritional value. Multi-cut variety with aggressive growth and establishment. Excellent palatability. Cows selectively graze it with no recorded cases of bloat. Slightly more cold tolerant than crimson clover but usually winter-kills.	Adapted to a wide range of soil types.	May - June, August - October	1/4" 	Drill: 10-15 lb/ac Broadcast: 15-18 lb/ac Mix: 2-8 lb/ac
CRIMSON CLOVER (SUMMER ANNUAL) CRIMSON CLOVER (SUMMER ANNUAL) - ORGANIC Very versatile legume cover crop with exceptional biomass and nitrogen production. Fall biomass production can be significant enough to reduce soil erosion and out-compete weed species, better than hairy vetch. Its taproot has the potential to reach a depth of 12-21" and has the ability to produce and scavenge residual N.	Prefers well-drained soils. Can be successfully sown into an existing, aggressive stand of grass if the seed is lightly incorporated into very short biomass.	May - June, August - October	1/4" 	Drill: 10-15 lb/ac Broadcast: 15-18 lb/ac Mix: 2-8 lb/ac
LADINO WHITE CLOVER Fixes the most nitrogen, is taller and higher yielding, but less persistent than White Dutch.	Widely adapted, easy to establish, and prefers medium to heavy soils. Is not drought tolerant.	February - May, August - October	1/8"  1/4" 	Drill: 4-6 lb/ac Broadcast: 5-8 lb/ac Mix: 2-4 lb/ac
MAMMOTH RED CLOVER MAMMOTH RED CLOVER - ORGANIC Single-cut red clover most often used as a cover crop. Excellent choice for under-seeding small grains in spring, fall seeding into standing crops, or frost seeding into winter grains. Establishes faster and is coarser stemmed than medium red clover.	Prefers wet and low pH soils that won't support alfalfa. Better adapted to heavier soils.	February - May, August - October Can be frost seeded.	1/8"  1/4" 	Drill: 10-15 lb/ac Broadcast: 15-18 lb/ac Mix: 2-8 lb/ac
MEDIUM RED CLOVER - VNS MEDIUM RED CLOVER - VNS - ORGANIC Biennial or short-lived perennial that is very versatile while producing high quality forage. It can be used for hay, pasture, silage, soil improvement, or cover crop.	Widely adapted to broad range of soil types and growing conditions.	February - May, July - August	1/4"  1/2" 	Drill: 10-15 lb/ac Broadcast: 15-18 lb/ac Mix: 2-8 lb/ac
WHITE DUTCH CLOVER A low-growing perennial clover commonly used in lawns, but can also be used for weed and erosion control. Attracts pollinators and is easily established in both new seedings and interseeding situations.	Widely adapted and prefers medium to heavy soils. Is not drought tolerant.	February - May, July - August	1/8"  1/4" 	Drill: 6-8 lb/ac Broadcast: 8-10 lb/ac Mix: 1-3 lb/ac
YELLOW BLOSSOM SWEET CLOVER YELLOW BLOSSOM SWEET CLOVER - ORGANIC Tall-growing biennial clover closely related to alfalfa with high biomass and N fixation potential. Blooms and matures earlier and is more persistent and drought tolerant than white clover. Good scavenger of P, K, and other immobile nutrients.	Prefers fertile loam soil, however is very drought tolerant and can withstand low fertility, salinity, and high pH.	February - May, August	1/4"  1/2" 	Drill: 8-12 lb/ac Broadcast: 15 lb/ac Mix: 2-5 lb/ac
TURF GRASSES				
HB SPORTS TURF Provides a dense, dark green turf suitable for lawns, activities, and sports. Establishes and regrows quickly; easy to maintain. Mow as needed.	Adaptable to most soil types. A starter fertilizer should be used.	Spring or fall	1/8"  1/4" 	Drill or Broadcast: 7 lb/1,000 sq ft 300 lb/ac
FESCUE - TURF TYPE Fine-bladed tall fescue variety for excellent turf quality. Ideal for home lawns, athletic fields, commercial lots, and farmstead applications. Excellent on non-irrigated areas. Very good traffic and drought tolerance.			1/8"  1/4" 	Drill or Broadcast: 250-300 lb/ac
KENTUCKY BLUEGRASS Deep roots and exceptional performance in drought conditions. Great choice for low maintenance situations. Germinates and establishes rapidly. Good overall disease resistance including dollar spot, rust, summer patch, and red thread.			1/8"  1/4" 	Drill or Broadcast: 50-100 lb/ac
RYEGRASS PERENNIAL - TURF Rich green bunchgrass-type turf that germinates quickly, suppresses weeds, and provides erosion control. Tolerant to high traffic and has good disease resistance. Works well in mixes. <i>Special Note: If you intend to use grass for feeding livestock make sure you purchase the "Forage Type" Perennial Ryegrass or a mix of seed that is specific for using as a forage. Turf Type Perennial Ryegrass and other turf type grass may contain endophytes that could harm livestock if grazed upon. Contact your animal health care provider for further information.</i>	Can grow in a variety of soil types, grows best in full sun to part shade.	Spring and early fall	1/4"  1/2" 	Drill or Broadcast: 4-5 lb/1000 sq ft (220 lb/ac)



















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SMALL GRAINS

ITEM NAME DESCRIPTION	SOIL ACCOMMODATIONS	PLANTING RANGE	DRILLING DEPTH	SEEDING RATE
BARLEY				
VNS A cool-season annual grass that produces grain for human and animal consumption. Because there are both summer and winter varieties, it can be grown at a wide variety of locations. Can be grazed by livestock before seedheads are produced. There are two different groups of barley, the six-rowed and two-rowed types. These groups refer to the differences in the arrangement of the seedheads in the spike. When viewing a head of six-rowed barley from above, there are six rows of kernels, three on each side of the rachis (seedhead stem). In two-rowed barley, only the middle spikelet develops a kernel, and the other two spikelets are sterile. When viewed from above, the two-rowed type appears to have only two kernels.	Deep, fibrous roots will absorb residual nutrients from the soil, so fertilization is not typically needed when planted as a cover crop. However, if soil tests indicate nitrogen is needed, apply recommended amounts at time of planting. Barley cannot tolerate poorly drained soil, grows well when pH values are between 6.0–8.5	March - May	<div><div>3/4"</div><div>1"</div><div>1 1/4"</div><div>1 1/2"</div></div> 	Drill: 75-100 lb/ac
BARLEY - FORAGE A beardless spring barley developed as a forage. Cool-season annual small grain commonly planted as hay or a silage crop. Taller and leafier than other barley varieties, quick maturing, and will be ready to cut earlier than other small grain forages planted at the same time. Works excellent in double cropping scenarios. Produces fine-stemmed hay that will cure easily and be highly palatable to all classes of livestock.	Requires approximately 9 lbs of N, 11 lbs of P, and 45 lbs of K per ton of forage produced. Drought-tolerant and displays high tolerance to saline or alkali soils.	Early spring	<div><div>1/2"</div><div>1"</div><div>1 1/2"</div><div>2"</div></div> 	Drill: 90-100 lb/ac Broadcast: N/A Mix: 20-40 lb/ac
OATS				
GOLIATH Late-maturing, multi-purpose oat that can be used for grain production, forage, or straw. Goliath oats are aptly named because of their height. Has a very high groat percentage with average protein content. Works well as a nurse crop for alfalfa or peas.	Can be grown on a wide range of soils and can tolerate a wider pH range than wheat or barley.	March - April, August - September	<div><div>1 1/2"</div><div>1 3/4"</div><div>2"</div></div> 	Drill: 2.5-3 bu/ac (80-100 lbs)
HAYDEN HAYDEN - ORGANIC Great all-around oat—top yielding, high test weight, good standability. Often meets milling requirements. Strong western movement. Direct replacement for Shelby 427. Avg yield/BU 130.				
JERRY JERRY - ORGANIC Taller, medium-late oat for forage and/or cover cropping. Very versatile as a cover or nurse crop for alfalfa and peas. No longer protected by PVP.				
WARRIOR A white-hulled, spring oat with medium maturing line. Heads out about 1 day later and is 2" taller than Horsepower. High yield potential and average test weight. Moderately resistant to smut and moderately susceptible to BYDV. The variety is resistant to crown rust. Lodging resistance is excellent. Is a great nurse crop for alfalfa and peas.				
PEAS				
4010 4010 - ORGANIC Offers excellent forage quality for grazing or hay and is a good option for early spring and fall cover cropping. Produces significantly more biomass than yellow grain type peas. Good companion to small grains.	Avoid wet ground. Prefers cool weather. Inoculate before planting.	March - April, August - September	<div><div>1 1/2"</div><div>2"</div><div>2 1/2"</div><div>3"</div></div> 	Drill: 120-180 lb/ac Broadcast: N/A Mix: 40-80 lb/ac
ICICLE WINTER Strong winter hardiness potential. Excellent root system and high biomass production in the spring. White flower; more digestible and sweeter tasting to livestock compared to purple types.	Prefers cool weather and well-drained soils. Does not tolerate acidic soils. Inoculate before planting. Can withstand colder autumn temperatures than field peas.	March - April, August - September	<div><div>1"</div><div>1 1/2"</div><div>2"</div></div> 	Drill: 50-100 lb/ac Broadcast: N/A Mix: 10-30 lb/ac
AUSTRIAN WINTER AUSTRIAN WINTER - ORGANIC Use as spring forage pea in cover crop mixes or forage blends. Can provide from 90 to 150 lbs nitrogen/acre at full flowering. Withstands temperatures as low as 10°F with minor injury. Does not overwinter in areas colder than Hardiness Zone 6. Sensitive to heat and humidity.				





ITEM NAME DESCRIPTION	SOIL ACCOMMODATIONS	PLANTING RANGE	DRILLING DEPTH	SEEDING RATE
OTHER SMALL GRAINS				
RYE - VNS One of the most versatile and commonly used components in cover crop mixes or in a row crop rotation. Cereal rye is winter-hardy and grows well in various conditions. Remarkable spring growth, has the potential to produce a lot of residue or forage. HYBRID RYE AVAILABLE UPON REQUEST	Performs well in a variety of soil types and is an excellent nutrient scavenger.	August - October	3/4"  1"  1 1/2"  2" 	Drill: 60-120 lb/ac Broadcast: 80-140 lb/ac Mix: 35-55 lb/ac
TRITICALE - SPRING AND WINTER VARIETIES AVAILABLE A hybrid cereal grain designed to combine the favorable traits of rye and wheat: rye's growth, vigor, and cold tolerance, and wheat's feed quality and palatability. Shows some drought tolerance and is less prone to lodging than winter rye.	Performs well in a variety of soil types. Responds well to strong fertility plans.	August - September	1"  1 1/2"  2" 	Drill: 80-100 lb/ac Broadcast: 100-120 lb/ac Mix: 40-60 lb/ac
LENTILS - VNS Short-stature, cool season legume very well suited for cover cropping. Excellent crop choice to break up cereal crop rotations. Lentil straw is much higher in CP, digestibility, and palatability. Smaller seed size is ideal for aerial application into standing crops.	Suited for all soil types including dry soil. Fixes a good amount of N.	March - May, July - September	1/2"  1"  1 1/2" 	Drill: 40-50 lb/ac Broadcast: 60-75 lb/ac Mix: 20-30 lb/ac
MILLET - GERMAN FOXTAIL Fast-growing, annual grass that can reach 3-5' tall and be ready to cut in 50 days. Has a very fine stem that is easy to hay. Highly palatable.	Likes good ground but tolerates tough, unfavorable conditions because of drought tolerance and early maturity.	Early June - mid-July (soil 62°F+)	1/2"  3/4" 	Drill: 20-25 lb/ac
MILLET - WHITE WONDER FOXTAIL Fast growing, drought tolerant Summer Annual Forage. Producing a fine stemmed leafy hay, it also creates good stubble for fall planted alfalfa or grass. 60-70 days will produce a hay crop.	Tolerates heat and drought and various soil types.		1/2" 	Drill: 20-25 lb/ac
MILLET - PEARL Annual bunchgrass that can reach 4-5' tall. Multi-cut, warm-season grass with coarse stems that produces high tonnage. Does not produce prussic acid. If used for livestock grazing and/or hay production, manage nitrate levels.	Likes good ground but can produce under low rainfall and low soil fertility.		1/2"  1" 	Drill: 25-30 lb/ac
HYBRID PIPER SUDANGRASS Annual grass with finer stems, prolific tillering, and palatability make this product ideal for hay production, grazing, green chop, silage, or baleage. Use multi-cut system or managed grazing for optimal production. Manage for the potential of prussic acid and nitrates.	Adaptable to most soil types and likes hot weather.	Early June - mid-July (soil 62°F+)	3/4"  1"  1 1/4" 	Drill: 20-30 lb/ac Broadcast: 25-35 lb/ac (Use high end of the rate for hay production.)



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 consider the impacts of these conditions on the grower's fields. Always follow grain marketing and IRM requirements and pesticide label directions. Agronomic characteristics and ratings may vary with growing conditions and environment. Ratings are approximate and should not be considered as absolute. Ratings on new products are based on limited data and may change as more data are collected. Extreme or variable conditions may adversely affect performance.



SORGHUM

ITEM NAME DESCRIPTION	SOIL ACCOMMODATIONS	PLANTING RANGE	DRILLING DEPTH	SEEDING RATE
GRAIN SORGHUM				
INTEGRA® G3590 (EARLY) Early maturity with high-end yield. Strong drought tolerance. Best suited for mid-low yield environments.	Requires nitrogen fertility (up to 150 lbs N per year). Manage potential for prussic acid & nitrate build-up.	Late May - early July (soil 62°F+)	<div><div>1"</div><div>1 1/4"</div><div>1 1/2"</div><div>1 3/4"</div></div> <div></div>	Drill: 5-15 lb/ac Broadcast: 10-20 lb/ac
INTEGRA G3620 (MED-EARLY) Versatile medium-early. Excellent agronomics and stability. Highly adaptable to various yield environments. Strong SCA tolerance.				
INTEGRA G3630 (MED-EARLY) Broad adaptability north to south. Good fit for both dryland or irrigated. Excellent standability and staygreen. Very stable across yield environments.				
INTEGRA G3665 (MEDIUM) Excellent sugarcane aphid tolerance. Attractive plant type with strong agronomic characteristics. Excellent yield potential and yield stability. Highly adaptable from South Texas to Southern High Plains.				
FORAGE SORGHUM				
INTEGRA 35F45 (EARLY) Early forage choice—harvest in approximately 85 days. Excellent standability due to shortened internodes. High rate of viable tillers. Superior digestibility due to BMR 6 gene. Good drought tolerance.	Medium maturity, hybrid forage sorghum. Grows 7-8' tall with stalks and leaves similar in size to corn. Will head out but not produce seed. Yields from 18-25 tons at 65% DM. Best used for silage, but will make baleage if seeded at high rates. Does well on dryland or irrigated fields but requires one-third less water than corn. Isolate from other sorghums by one mile to protect sterility and prevent seed formation. Manage potential for prussic acid and nitrate buildup.	Late May - early July (soil 62°F+)	<div><div>1/2"</div><div>1"</div></div> <div></div>	Drill: 8-10 lb/ac
INTEGRA 33F70 (MED-FULL) New medium-full BMR/brachytic forage choice. High tonnage and excellent digestibility. Will reach soft dough in about 105 days. Good drought tolerance and standability.				
INTEGRA 32F80 (FULL) Broadly adapted across the southern US. Excellent standability. Short statured with the same number of nodes as tall forages. Will reach soft dough in approximately 120 days. Handles salt well. Excellent nutritional package. Superior digestibility due to the BMR trait.				



ITEM NAME DESCRIPTION	SOIL ACCOMMODATIONS	PLANTING RANGE	DRILLING DEPTH	SEEDING RATE
SORGHUM SUDAN				
INTEGRA HAY GRAZER A high yielding conventional forage grass best used for hay, grazing, greenchop, or cover crop. Thin sweet stems make it highly palatable with stem sugar ranging from 12-16%. Planting higher populations will result in finer stems, which dry quicker, producing higher quality hay. The improved drought tolerant genetics allow it to yield even under dry conditions. Recovery following a drought is excellent. Always test the forage for prussic acid and nitrates prior to feeding to any animal.	Adapted to most soil types.	Spring - early summer	<div><div>3/4"</div><div>1"</div><div>1 1/4"</div><div>1 1/2"</div></div> 	Drill: 30-45 lb/ac (dryland) 45-60 lb/ac (irrigated) Broadcast: 30-45 lb/ac (dryland) 45-60 lb/ac (irrigated)
INTEGRA 31F65 (BMR) Broadly adapted across the US. Excellent standability due to shortened internodes. Versatile product that adapts to almost any forage system. Superior digestibility due to BMR trait. This dwarf variety will grow up to 2-4 ft tall.	These products are adapted to most soil types and have strong disease resistance.	Late May - early July (soil 62°F+)	<div><div>3/4"</div><div>1"</div><div>1 1/4"</div><div>1 1/2"</div></div> 	Drill: 20-30 lb/ac Broadcast: 25- 35 lb/ac
INTEGRA RANCH HAND (BMR) Ideal for hay and grazing. Excellent standability. Superior digestibility and feed quality due to BMR trait. Very high quality forage. Strong drought tolerance. Widely adapted throughout US.				
INTEGRA 31F85 Outstanding tonnage producer. Excellent standability. 90 days to boot.				
UNTREATED SORGHUM AVAILABLE UPON REQUEST				

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Glossary



Glossary

BSR: *Brown stem rot* is a fungus that causes chlorosis and necrosis between leaf veins and leaf curling, which leads to leaf death.

Dual usage: Grain hybrids with tonnage and cropping needs for maximum flexibility on your acres.

Floury Leafy Silage Hybrid: A corn hybrid that has a silage-specific kernel with a completely floury interior.

Germination: The growth of a plant that is contained within the seed, or the process by which a seed grows from a seed.

GLS (Gray leaf spot): A fungal disease affecting corn. This disease favors temperatures above 80°F and relative humidity of 90% or higher.

Goss's wilt: A bacteria known as *Clavibacter* that can infect the plants' leaves at any stage of the growth process.

Greensnap: The breakage of corn stalks caused by high winds mainly in the Plains and Northern Plains.

HSS: Heavy grains, soybeans, and sorghums. This term is used to characterize the type of grain coming within a variety of descriptions, mainly used in characterizing and grain trading.

Hybrid: A hybrid seed is a seed that is created by crossing two or more different varieties/traits.

IDC: *Iron deficiency chlorosis* caused by lack of iron in soybeans. This can be seen by the yellowing of the foliage during early growth stages.

Northern corn leaf blight: A foliar disease in corn caused by *Exserohilum turcicum* causing cigar-shaped lesions on the leaves of the plant, potentially causing significant loss in yield.

Numbering system: A system to simplify the seed selection process by providing identification of maturities and traits in each hybrid.

PRR: *Phytophthora root rot* is a fungal disease affecting soybean crops that is favored by wet and warm environmental conditions.

RKN: *Root-knot nematode*. This insect attacks the root of the soybean plant. Affected root systems contain large, irregular growths.

SCA: Specific combining ability.

SCN: Soybean cyst nematode. A nematode that infects the roots of the soybean plant where the female nematode eventually becomes a cyst on the plant.

SDS: Sudden death syndrome is a disease caused by a soil-borne fungus that includes two phases of plant death: a root rot phase and leaf scorch phase. During early reproduction stages, this disease produces a toxin that moves upward through the plant to the leaves producing the same foliar symptoms.

Southern rust: A fungus in corn that causes lesions mainly on the leaf surface. This may leave an orange dust on your fingers.

Staygreen: Or stay-green, refers to the trait allowing plants to keep their leaves on a level of photosynthesis under stressful environmental conditions.

SWM: Soybean white mold. A disease caused by *Sclerotinia sclerotiorum* favoring cool, cloudy, wet, and humid weather.

Test weight: Bulk density, pounds per bushel.

Tillage system: A sequence of operations manipulating the soil to produce a crop.

Variety: A smaller entity within a kind, or, a seed with different characteristics of another seed. Ex. Beans and chickpeas

Vigor: Or seed vigor, a property of a seed product that determines the potential for growth and uniformity of the product.



WARRANTY. The seller hereby warrants that the seed purchased under this label will comply with the description on the bag label (within recognized tolerances) for a period of six (6) months from date of purchase, as required by any applicable federal and state seed laws. DISCLAIMER OF WARRANTIES. EXCEPT FOR THE FOREGOING EXPRESS WARRANTY, THE SEED IS FURNISHED "AS-IS," AND SELLER MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE SELECTION, PURCHASE OR USE OF THIS PRODUCT; SELLER SPECIFICALLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR

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