DLF

SEEDS & SCIENCE

WESTERN CANADA

PRODUCT GUIDE

EDITION 2

2024

NEIL DOUGLAS

Executive Vice President,

DLF North America

We have an opportunity today to do something great – together.

Let me take this moment to welcome you to DLF North America. While we take time to listen and learn about your business and invest in tools to help you grow, we also invite you to help us think BIG. Even Earth-sized.

We are pulling together DLF teams and resources from across the globe to tackle big problems – like changing climate patterns, carbon emissions, disease pressures and more – with improved products you have at your fingertips. You are Seeding the Green Future by partnering with us to deliver sustainable solutions with the potential to:

- Increase productivity of land and livestock
- Sequester carbon and reduce emissions in the supply chain
- Fixate nitrogen
- Reduce leaching of nitrogen and pesticides

You have a tremendous opportunity to help us bring some of the world's best products to the farm gate, while helping our earth and growing your business along the way. DLF will provide the tools and support you need to succeed. We hope that you will join us.

OUR CUSTOMERS CAN
COUNT ON GROWTH

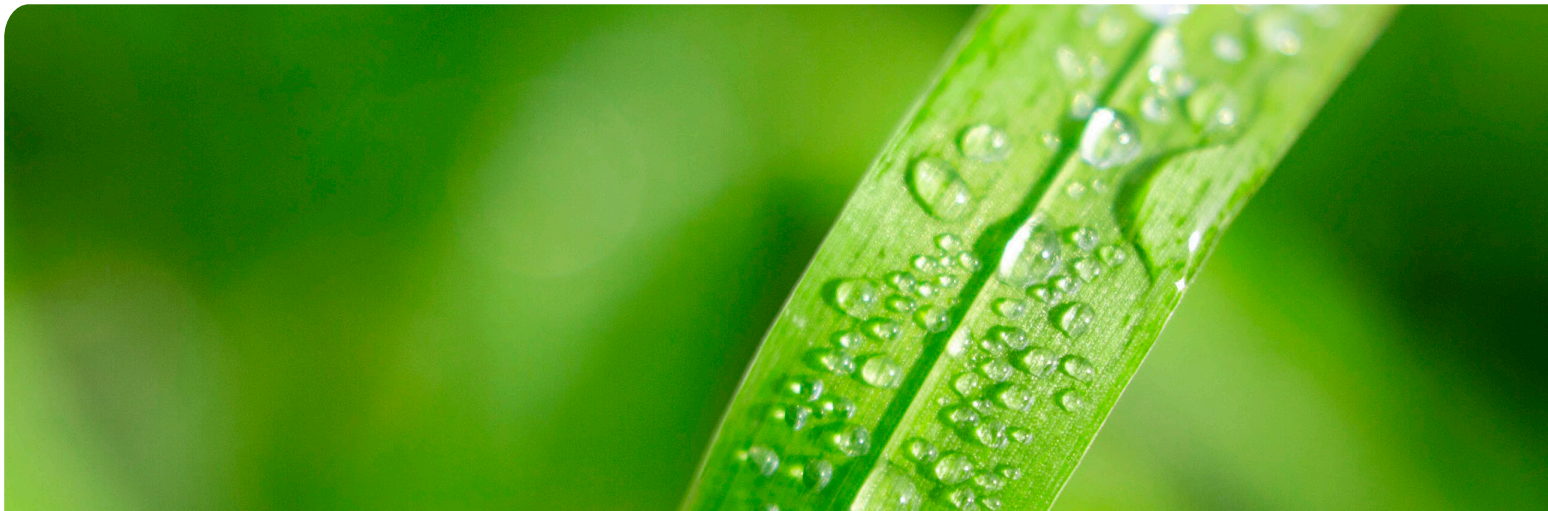
At DLF we research, develop and produce products to specifically meet the needs of the Canadian market and conditions.

DLF is the global leader in research, development, production and distribution of forage and other seed. **This makes us part of a worldwide organization with a passion for innovation and a commitment to helping us deliver the best forage products.**

World market leader **within temperate forage and turf seeds.** Supplying to more than 100 countries.

Leading research and development program in sustainable and green crops of the future

7th largest seed company in the world



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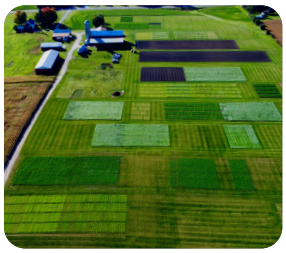
GROWING WITH DLF

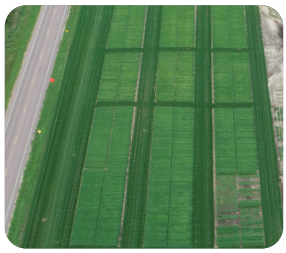
Our customers demand a lot from their seed: yield, forage quality, winterhardiness and disease resistance. That is why we invest heavily in global R&D and our field trials. Roughly 11% (1 in 9) of DLF's over 2,000 worldwide employees are involved in breeding programs and product development. For more than 30 years, DLF breeding and product development has optimized forage grass and legume varieties ideal to local climatic and environmental conditions to seed the green future. We aim to deliver sustainable solutions with the potential to increase productivity of land and livestock, sequester carbon and reduce emissions in the supply chain.

Lindsay, Ontario Canada

Port Hope, Ontario Canada



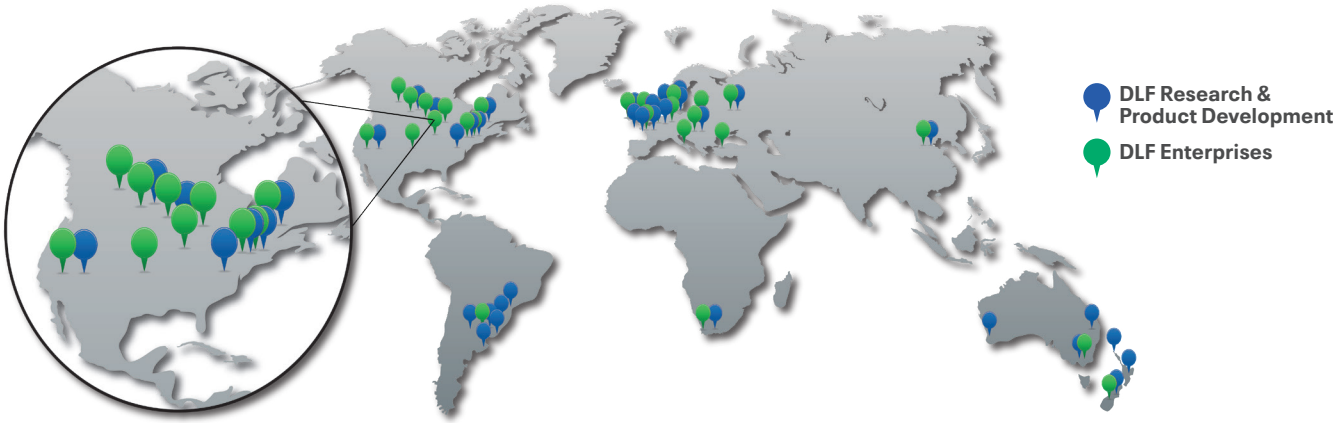
Bangor, Wisconsin USA



Philomath, Oregon USA

Berry, Kentucky USA

THE WORLD OF DLF



850 EMPLOYEES
work in DLF's Turf and Forage Division worldwide

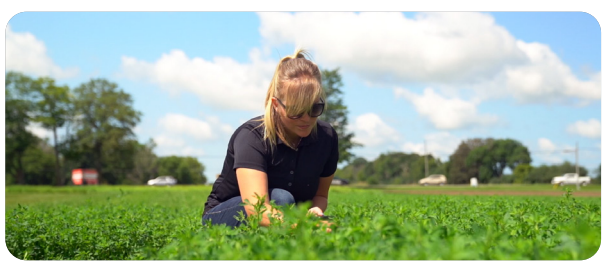
11% OF DLF'S WORKFORCE
is employed in research & development

1,600+ VARIETIES
have been released and commercialized through this effort!

"It is very fulfilling to be able to test and analyze varieties from breeders across the globe on Canadian soils to ensure they are not only compatible with our environment, but that they are superior to current varieties on the market.

Collecting information on agronomy ratings, forage quality data and yield data from our trustworthy and reliable head to head replicated trials ensures DLF only ever releases the best varieties to our customers. I feel very fortunate to be part of the DLF R&D team, it is such a rewarding career!"

Sylvia Megens - Manager of Product Development, Canada



OVER THE PAST 8 YEARS WE HAVE HARVESTED

84,669 FORAGE PLOTS ACROSS CANADA!

TRIAL DESIGN

- DLF is home to the only proprietary, replicated forage trials across Canada
- Each plot in a trial is 3 feet wide by 17 feet long
- Each trial has 4 randomized replications of all varieties
- Each trial runs for three production years

TESTING

DLF's Canadian Product Development provides the ability to select varieties that have improved disease resistance, superior yield, improved winterhardiness, faster regrowth and high forage quality based on true head to head comparisons!

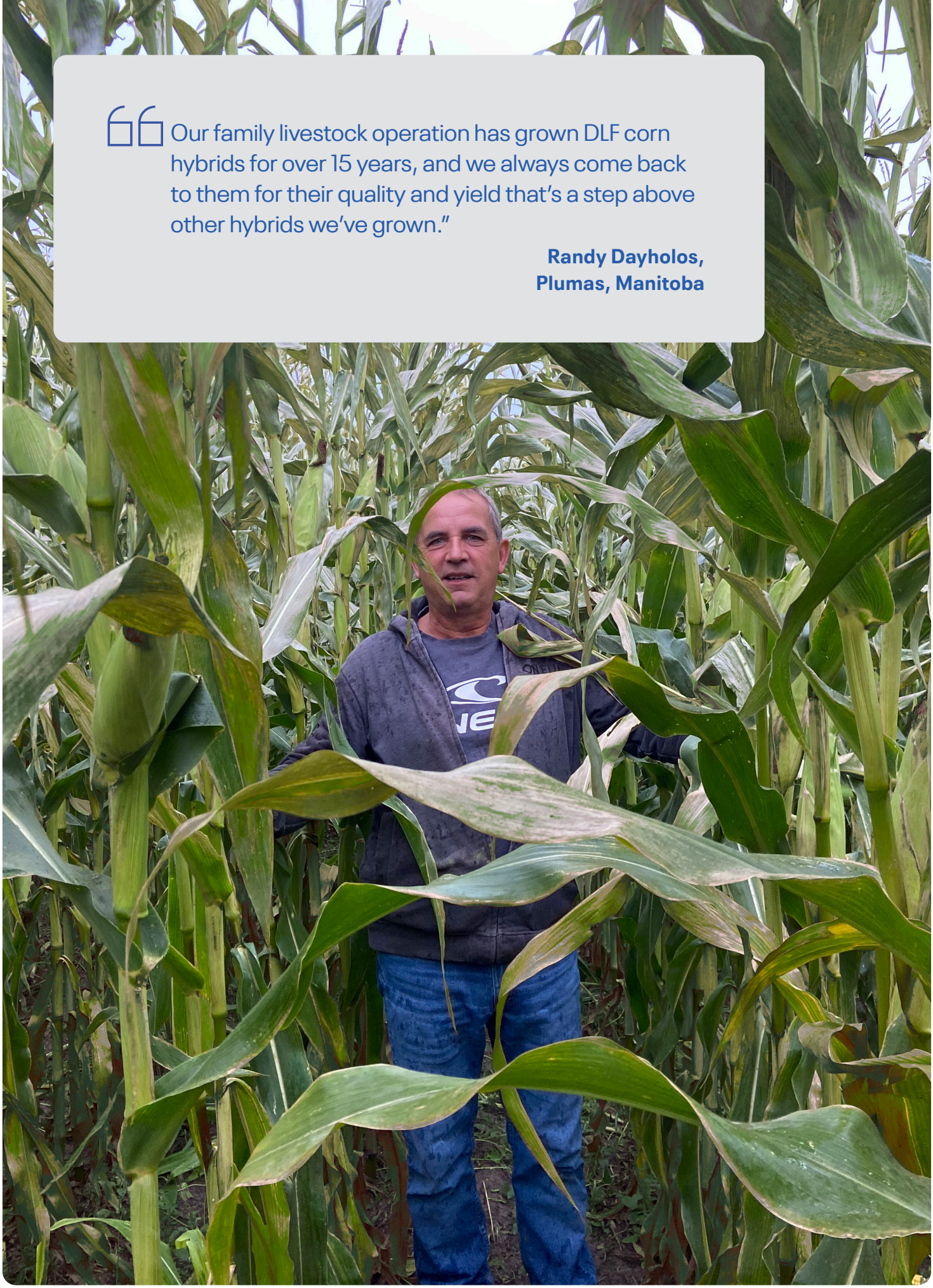
Trial showing comparisons of orchardgrass winterhardiness - Port Hope ON

Trial showing comparisons of alfalfa regrowth - Lindsay ON

HARVESTING

Using DLF's custom RCI Engineering 36A forage harvester, Legume trials are harvested 3-4 times and Grass trials are harvested 2-3 times per season

DLF's custom RCI Engineering 36A forage harvester in Lindsay ON



> “Our family livestock operation has grown DLF corn hybrids for over 15 years, and we always come back to them for their quality and yield that’s a step above other hybrids we’ve grown.”
>
> **Randy Dayholos,**
> **Plumas, Manitoba**

READY FOR THE NEW GENERATION OF DISEASE RESISTANT ALFALFA?

DLF is proud to lead the Canadian market with varieties of conventional and HarvXtra® alfalfa with enhanced multi-race Aphanomyces* and Anthracnose** disease resistance.

WHAT IS APHANOMYCES ROOT ROT?

SYMPTOMS:

- Stunted growth
- Yellowing cotyledons
- Yellowing/purpling of upper leaflets
- Grey-brown coloured roots and stems
- May resemble nutrient deficiency/herbicide damage

MANAGEMENT:

- Plant certified DLF varieties with enhanced multi-race Aphanomyces and Anthracnose disease resistance
- Fungicide seed treatments are not a solution for controlling this disease

***Includes race 1 and race 2 protection. In addition, Forage Genetics International, LLC (FGI) has identified a novel source of Aphanomyces resistance in the greenhouse and field that visibly outperforms unrelated varieties on the market when grown under natural or artificial disease pressure. FGI researchers have been working cooperatively with universities collecting and testing the most virulent strains of Aphanomyces to help determine the level of resistance to this novel source.**

****Anthracnose Race 5 was recently confirmed by researchers at Forage Genetics International, LLC (FGI) and USDA's Agricultural Research Service.**

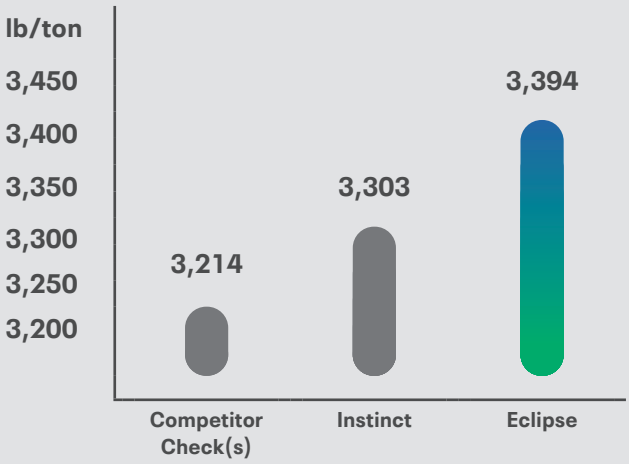
ALFALFA

ECLIPSE ALFALFA

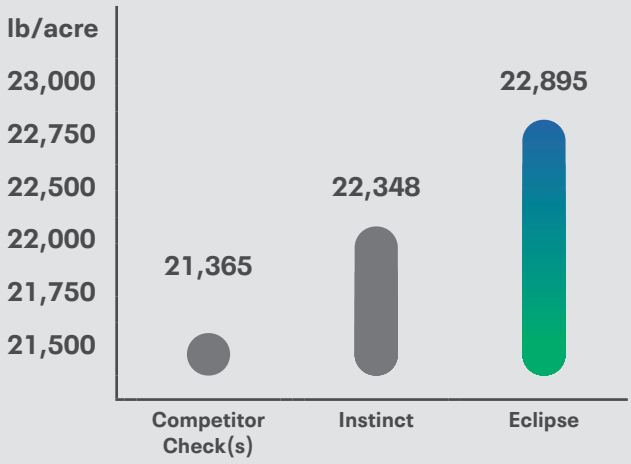
SELECTED FOR: Disease Resistance | Forage Yield | Forage Quality

Fall Dormancy 4.4 | Winter Survival 1.6

5% MORE MILK PER TON



MORE MILK PER ACRE



Locations: Ontario: Lindsay, Port Hope
Competitor Checks: 54Q14, 55Q27, 55Q29, Dominator, Boost HG, Surge HG, AAC Trueman
Milk Per Ton & Milk Per Acre values calculated using the University of Wisconsin Alfalfa/Grass Evaluation System - Milk 2006

YIELD COMPARISONS

	Harvest Years	# Of Cuts	# of Station Years	Yield (Kg/Ha)	Yield (T/Acre)	% of Competitor Checks
ECLIPSE	**2016 - 2022**	**142**	**37**	**12,534**	**5.07**	**108**
Competitor Checks	2016 - 2022	142	37	11,557	4.68	100

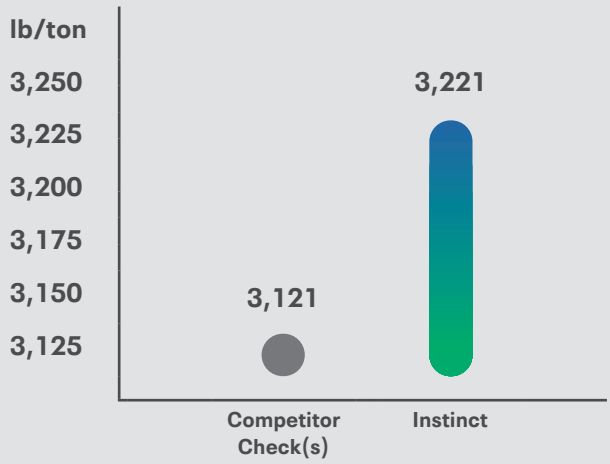
Locations: Lindsay, ON, Port Hope, ON, Josephburg AB, Portage la Prairie, MB, Nampa, ID, Touchet, WA, Cannon Fall, MN, Boone, IA, Mt Joy, PA
Competitor Checks: 54Q14, 55Q27, 55Q29, Boost HG, Dominator, Showdown, Pillar ST, Surge HG

INSTINCT ALFALFA

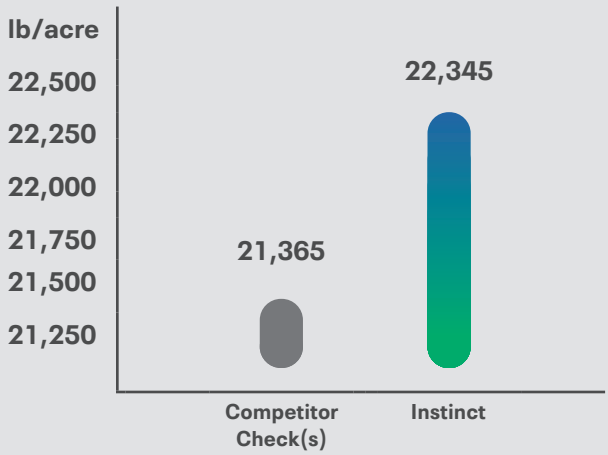
SELECTED FOR: Disease Resistance | Forage Yield | Forage Quality

Fall Dormancy 4.4 | Winter Survival 1.5

3% MORE MILK PER TON



MORE MILK PER ACRE



Locations: Ontario: Lindsay, Port Hope
Competitor Checks: 55V50, 55V48, Dominator, Boost HG, Surge HG, AAC Trueman, Showdown
Milk Per Ton & Milk Per Acre values calculated using the University of Wisconsin Alfalfa/Grass Evaluation System - Milk 2006

YIELD COMPARISONS

	Harvest Years	# Of Cuts	# of Station Years	Yield (Kg/Ha)	Yield (T/Acre)	% of Competitor Checks
INSTINCT	**2010 - 2022**	**200**	**84**	**10,243**	**4.15**	**104**
Competitor Checks	2010 - 2022	200	84	9,887	4.02	100

Locations: Lindsay, ON, Port Hope, ON, Josephburg AB, Portage la Prairie, MB
Competitor Checks: 54Q14, 55Q27, 55Q29, 55V50, 55V48, Boost HG, Dominator, Showdown, Pillar ST, Surge HG

OTHER LEGUME & GRASS VARIETIES

AC GRAZELAND BR
Alfalfa

BLOAT REDUCED | WINTER-HARDINESS | FORAGE QUALITY

ASSALT ST
Alfalfa

HIGH PH TOLERANCE | DISEASE RESISTANCE | FORAGE QUALITY

WESTSTAR BLEND
Alfalfa

TETRAPLOID TYPE | FORAGE YIELD | FORAGE QUALITY

BULL
Birdsfoot Trefoil

BLOAT REDUCED | WINTER-HARDINESS | GRAZING TOLERANT

SILVESTER
Ladino White Clover

RAPID ESTABLISH | WINTER-HARDINESS | FORAGE QUALITY

ALTASWEDE
Single Cut Red Clover

SINGLE CUT | FORAGE QUALITY | RAPID ESTABLISH

RICHMOND
Timothy

EARLY MATURITY | SPRING VIGOUR | FORAGE QUALITY

ENDURANCE
Orchardgrass

MED MATURITY | FORAGE YIELD | FORAGE QUALITY

ECHELON
Orchardgrass

LATE MATURITY | DISEASE RESISTANCE | FORAGE QUALITY

CAPTUR
Orchardgrass

VERY LATE MATURITY | DISEASE RESISTANCE | FORAGE QUALITY

TOWER
Fescue, Tall

LATE MATURITY | DISEASE RESISTANCE | STRESS TOLERANCE

KORA
Fescue, Tall

MED-LATE MATURITY | SOFT LEAF (VERY HIGH FORAGE QUALITY) | DISEASE RESISTANCE

NEW

HYPERBOLA

Fescue, Meadow

DISEASE RESISTANCE | WINTER-HARDINESS | FORAGE QUALITY

MAHULENA (FESCUE TYPE)

Festulolium

FORAGE YIELD | DISEASE RESISTANCE | FORAGE QUALITY

POLIM

Perennial Ryegrass

EARLY SPRING GROWTH | FORAGE YIELD | FORAGE QUALITY

YOLANDE

Italian Ryegrass

DIPLOID TYPE | FORAGE YIELD | FORAGE QUALITY

FIRKIN

Italian Ryegrass

TETRAPLOID TYPE | FORAGE YIELD | FORAGE QUALITY

JEANNE

Italian Ryegrass

TETRAPLOID TYPE | FORAGE YIELD | FORAGE QUALITY

MBA

Bromegrass, Meadow

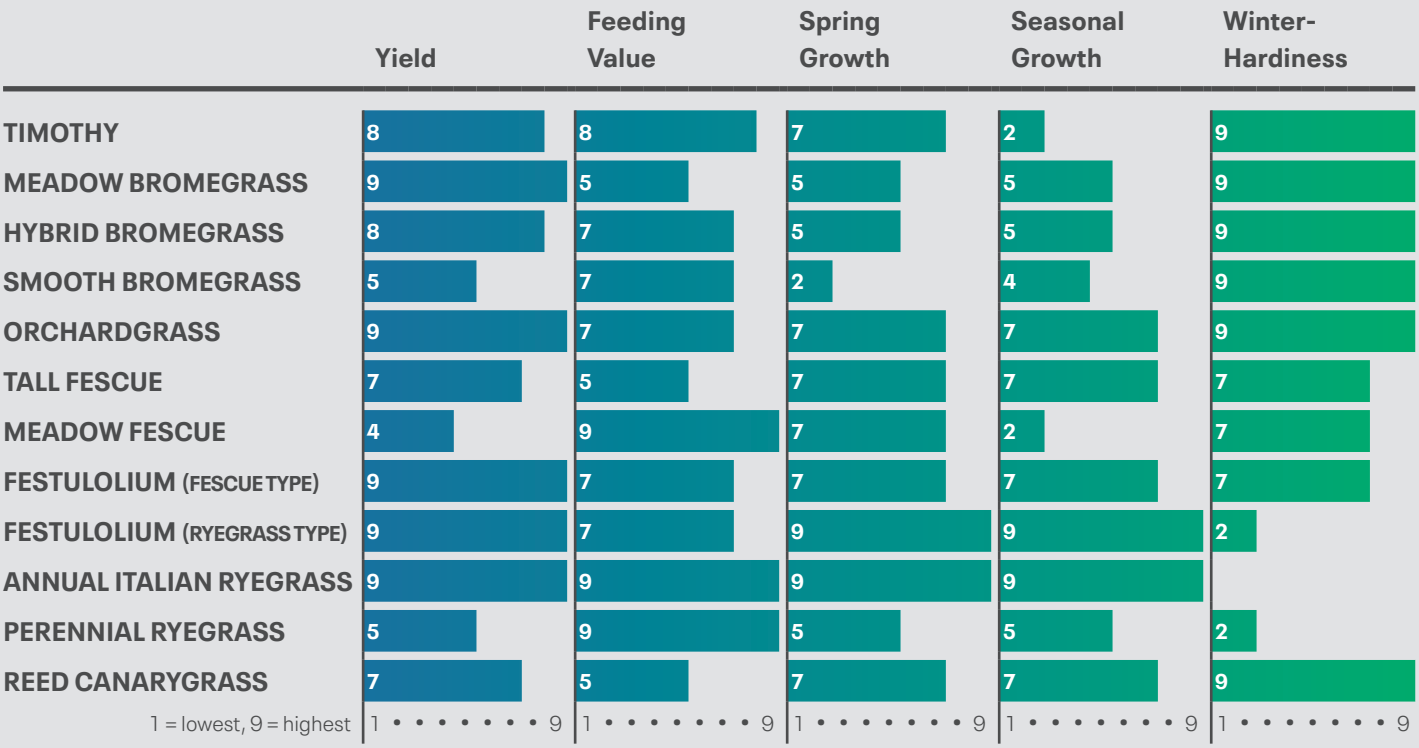
FORAGE YIELD | WINTER-HARDINESS | SEASONAL GROWTH PATTERN

SUCCESSION BRAND

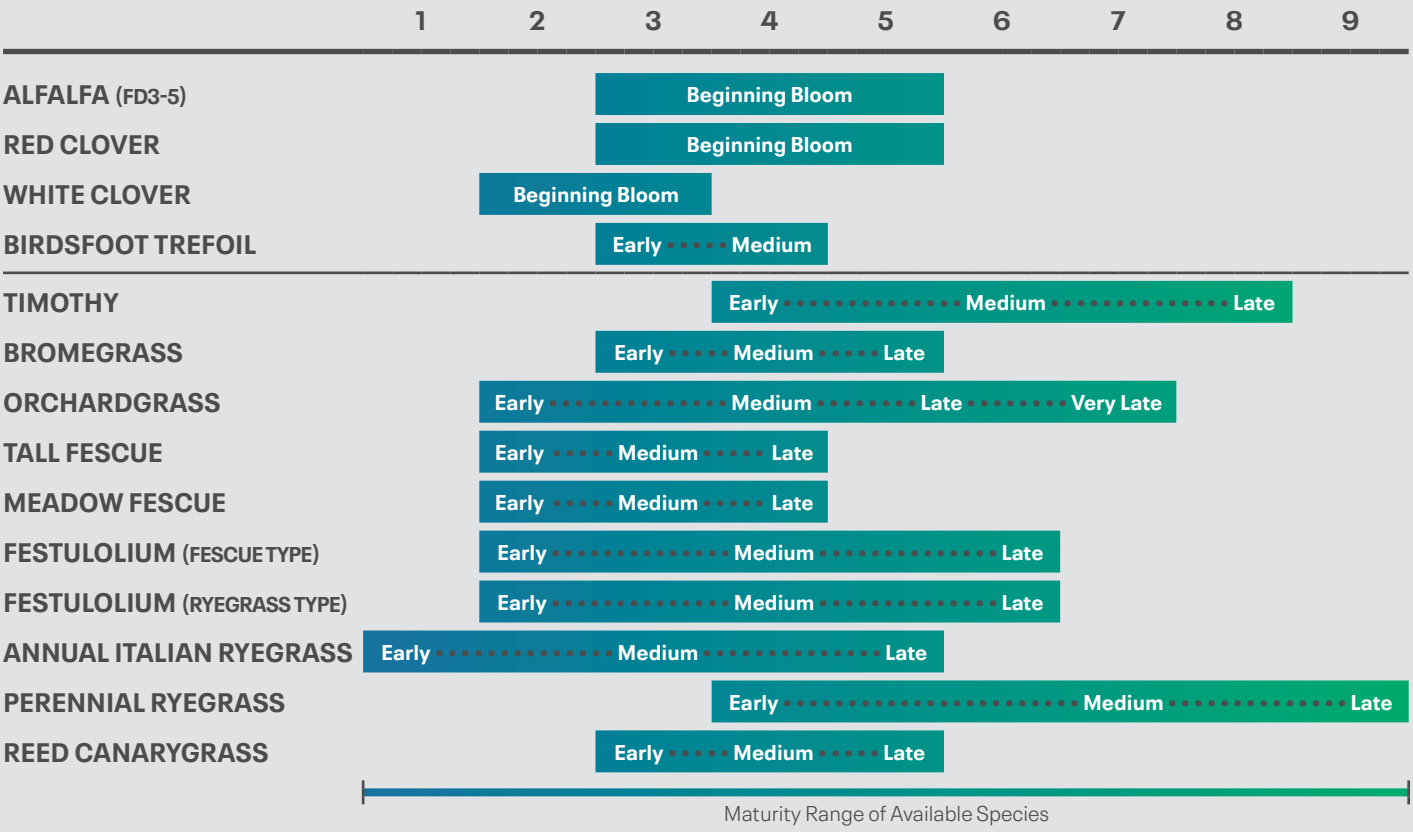
Bromegrass, Hybrid

FORAGE YIELD | WINTER-HARDINESS | FORAGE QUALITY

PROPERTIES OF GRASSES



FORAGE MATURITY MATRIX



XL BRANDS

Represent branded products that provide good value, maximum flexibility, more profit potential and continuous innovation. XL brands contain one or more improved varieties.

NAME	SPECIES	DESCRIPTION	
PREMIUM XL	ALFALFA	• Very good forage yield	• Very good forage quality
CR XL	ALFALFA	• Creeping Rooted	• Grazing tolerant
TOP TIM XL	TIMOTHY	• Excellent winterhardiness	• Excellent for hay or pasture
HAYMATE XL	ORCHARDGRASS	• Excellent for hay or pasture	• Improved disease resistance
BIG TON XL	BROMEGRASS	• Excellent winterhardiness	• Very good forage quality
ENDO-GRAZE XL	PERENNIAL RYEGRASS	• Fast establishment	• Excellent forage quality
DEFIANT XL	REED CANARYGRASS	• Can be used for hay, silage or pasture	• Extremely stress tolerant
RED CARPET XL	RED CLOVER	• Fast establishment	• Multi-cut varieties
ORION XL	LADINO WHITE CLOVER	• Good regrowth following grazing	• Easy to establish
LOTUS XL	BIRDSFOOT TREFOIL	• Tolerant of poorly drained soils	• Non-bloating legume
FUSION XL	FESTULOLIUM	• Very good forage quality	• Very good forage yield
STARGRAZER XL	TALL FESCUE	• Endophyte free	• Can be used for hay or pasture
TETRABANA XL	ITALIAN RYEGRASS	• Fast establishment	• Excellent forage yield in seeding year

MORE MILK, MORE MEAT

In forage, fibre digestibility is one of the most important quality measures. The main benefit of high fibre digestibility is an increase in milk and meat production.

1% increase in fibre digestibility (dNDF) = +0.25 litres milk per cow per day

The importance of high fibre digestibility is supported by independent research that is well acknowledged throughout the world. Fibre digestibility is a key focus of the DLF global research platform.

HIGHER YIELD

Our top quality forages improve nutritional intake and increase milk or meat production. Choosing better varieties is the best way to maximize your output without increasing your input costs.

HIGHER DIGESTIBILITY

Dairy and beef herds perform better when their forage has high cell-wall fibre digestibility and the protein content is high. You get a higher dry matter intake and improved milk and meat production.

HIGHER QUALITY

Certified seed of our proprietary varieties will improve establishment from every seed you sow and increase your chances of securing high yield of the desired quality.

VALUE ADDED
FORAGE MIXES

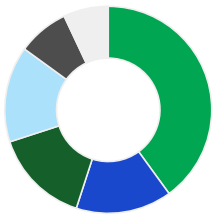
Grass Mixes
Grass & Legume Mixes

HAY MIXTURES

CATTLEMANS

Seed at 6.5 kg (14 lbs) /acre

- Ideal grassland pasture
- Quick regrowth
- Good drought tolerance
- Season long growth
- Built for Beef!

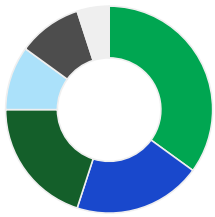


- 40% MBA Meadow Bromegrass
- 15% Kirk Crested Wheatgrass
- 15% AC Grazeland BR Alfalfa
- 15% Stargrazer XL Tall Fescue
- 8% Dahurian Wildrye
- 7% Slender Wheatgrass

STOCKMANS

Seed at 6.5 kg (14 lbs)/acre

- Widely adaptable
- A well balanced mix
- Non-bloating Cicer Milkvetch utilized to increase quality

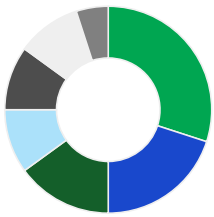


- 35% MBA Meadow Bromegrass
- 20% Haymate XL Orchardgrass
- 20% Cicer Milkvetch
- 15% Stargrazer XL Tall Fescue
- 10% Endo-Graze XL Perennial Ryegrass
- 5% Top Tim XL Timothy

PASTUREPRO

Seed at 5.5 kg (13 lbs) /acre

- Widely adaptable
- Highest yielding pasture blend
- Season long performance
- Designed for maximum growth

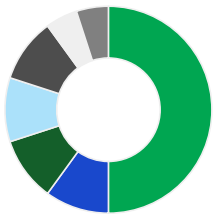


- 30% MBA Meadow Bromegrass
- 20% AC Grazeland BR Alfalfa
- 15% Haymate XL Orchardgrass
- 10% Stargrazer XL Tall Fescue
- 10% Endo-Graze XL Perennial Ryegrass
- 10% Mahulena Festulolium
- 5% Top Tim XL Timothy

RANGEPRO

Seed at 6.5 kg (14 lbs) /acre

- Long term pasture with no legume
- Adapted to the drier areas of the Prairies

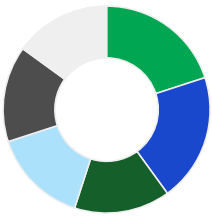


- 50% MBA Meadow Bromegrass
- 10% Fairway Crested Wheatgrass
- 10% Haymate XL Orchardgrass
- 10% Stargrazer XL Tall Fescue
- 10% Mahulena Festulolium
- 5% Top Tim XL Timothy
- 5% Darhurian Wildrye

SALTPRO

Seed at 6 kg (14 lbs) /acre

- Formulated for salinity prone pastures



- 20% Big Ton XL Bromegrass
- 20% Tall Wheatgrass
- 15% Dahurian Wildrye
- 15% Slender Wheatgrass
- 15% Stargrazer XL Tall Fescue
- 15% Assalt ST Alfalfa

DRYLANDS

Seed at 6.5 kg (14 lbs) /acre

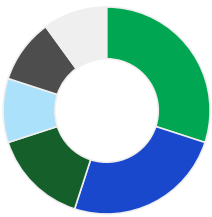
- Use for long term production
- Excellent persistence
- Season long growth

- 40% MBA Meadow Bromegrass
- 20% Kirk Crested Wheatgrass
- 20% Pubescent Wheatgrass
- 10% Dahurian Wild Ryegrass
- 10% CR XL Alfalfa

LOWLANDS

Seed at 6 kg (14 lbs) /acre

- Use for long term production
- Excellent persistence
- Season long growth
- Season long performance
- Designed for maximum growth



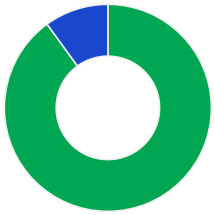
- 30% Hyperbola Meadow Fescue
- 25% Kora Tall Fescue
- 15% Richmond Timothy
- 10% Boreal Creeping Red Fescue
- 10% Defiant XL Reed Canarygrass
- 10% Dawn Alsike Clover

PASTURE MIXTURES

DAIRYPRO

Seed at 5 kg (12 lbs) /per acre

- Highest quality hay
- Custom designed for dairy production needs

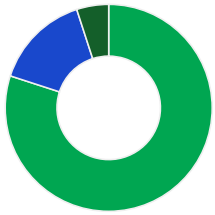


- 90% Instinct Alfalfa
- 10% Richmond Timothy

HAYPRO T5

Seed at 5.5 kg (13 lbs) /acre

- Rapid establishment with great persistence
- Very adaptable

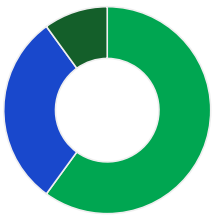


- 80% Instinct Alfalfa
- 15% Haymate XL Orchardgrass
- 5% Richmond Timothy

HAYPRO T10

Seed at 6 kg (13 lbs) /acre

- Highest yielding for regular rotations
- Extremely adaptable with multiple disease resistance

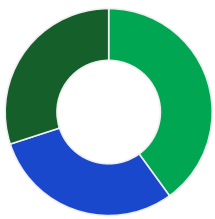


- 60% WestStar Alfalfa Blend
- 30% Succession Hybrid Bromegrass
- 10% Richmond Timothy

HAYPRO DRY

Seed at 7 kg (15 lbs) /acre

- Great for single-cut hay systems that require fall grazing
- Well suited for dry sandy soils



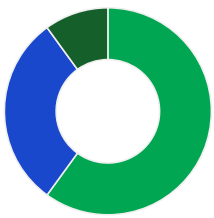
- 40% Big Ton XL Bromegrass
- 30% Kirk Crested Wheatgrass
- 30% CR XL Alfalfa

DUAL PURPOSE MIXTURES

HAYGRAZE

Seed at 6 kg (13 lbs) /per acre

- Rapid regrowth & great quality
- Use as multi-cut hay & still have extra to graze in the fall

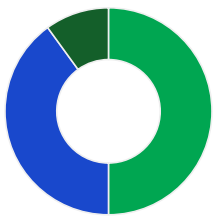


- 60% AC Grazeland BR Alfalfa
- 30% Succession Hybrid Bromegrass
- 10% Haymate XL Orchardgrass

HAYGRAZE DRY

Seed at 5 kg (13 lbs) /acre

- Superior yield & quality in dry conditions
- Safe against bloat

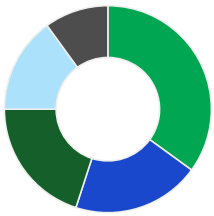


- 50% AC Grazeland BR Alfalfa
- 40% MBA Meadow Bromegrass
- 10% Kirk Crested Wheatgrass

HORSEMANS

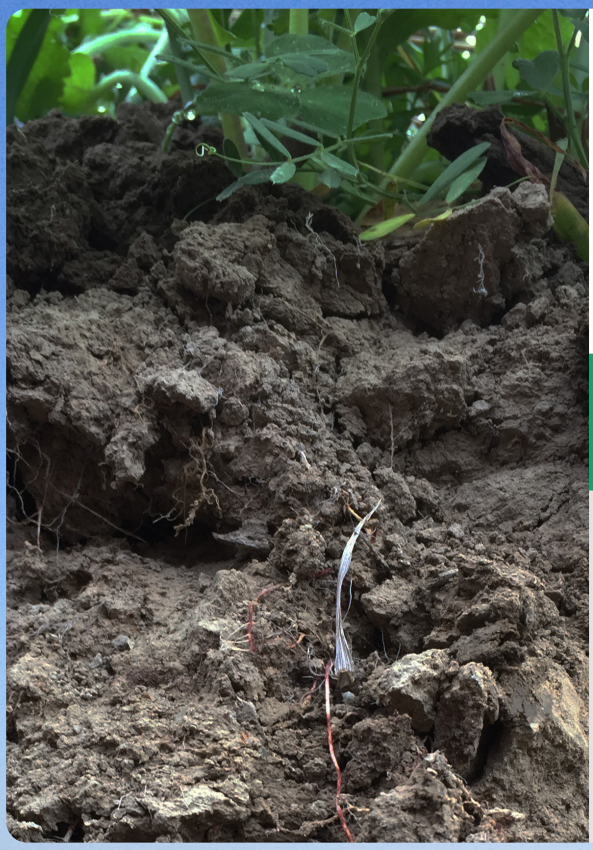
Seed at 7 kg (15 lbs) /acre

- Well balanced
- Excellent Spring, Summer & Fall growth
- Suitable for all acreage ruminants
- Stands up well to heavy grazing



- 35% MBA Meadow Bromegrass
- 20% Forage type Kentucky Bluegrass
- 20% Haymate XL Orchardgrass
- 15% Top Tim XL Timothy
- 10% Endo-Graze XL Perennial Ryegrass

COVER CROPS



THE VALUE OF 1% ORGANIC MATTER

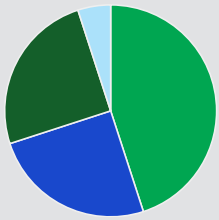
Every 1% increase of Organic Matter raises the soil's water-holding capacity by as much as 27,000 gallons per acre.*

1% OF ORGANIC MATERIAL CONTAINS:

- 10,000 lbs. of Calcium,
- 1,000 lbs. of Nitrogen,
- 100 lbs. of Phosphorus,
- 100 lbs. of Potassium,
- 100 lbs. of Sulfur,
- 0.3-1 inch of Water.*

TAKING CARE OF YOUR BIGGEST RESOURCE ... SOIL

Research to date proves cover crops help in the short term and encouraging soil structure and soil health for decades to come.



- **45% Minerals (Clay, Sand, Etc.)**
- **25% Air**
- **25% Water**
- **1-5% Organic**
  - **85% Humus**
  - **10% Roots**
  - **5% Living Organisms**

*Ohio State University, 2014.

DETERMINE YOUR GOAL	EASY ESTABLISH	P&K CYCLING	POLLINATOR BENEFIT	COMPACTION ALLEVIATION	WEED SUPPRESSION	BIOMASS PRODUCTION	EROSION CONTROL	NITROGEN FIXER		Planting Time*	Seeding - Drill (lbs/acre)
LEGUMES	1 = Poor 2 = Average 3 = Good 4 = Very Good 5 = Excellent										
Crimson Clover	4	3	3	2	4	3	3	FIXER		SG, LS	10 - 15
Red Clover	3	4	4	4	4	4	3	FIXER		SG, LS, F	8 - 12
Berseem Clover	4	4	3	2	4	3	4	FIXER		SG, LS	8 - 20
Winter Peas	4	2	4	2	4	3	3	FIXER		SG, LS	75 - 120
Hairy Vetch	3	4	5	3	4	4	3	FIXER		LS, F	15 - 30
Sunn Hemp	3	3	4	2	4	5	3	FIXER		SR, LS	15
NON LEGUMES	1 = Poor 2 = Average 3 = Good 4 = Very Good 5 = Excellent										
Italian Ryegrass	5	3	2	5	5	3	5	SCAVENGER		SG, LS, F	15 - 30
Winter (Cereal) Rye	4	4	1	4	5	4	5	SCAVENGER		LS, F	30 - 50
Winter Triticale	4	4	1	2	4	5	4	SCAVENGER		LS, F	30 - 50
Spring Oats	4	3	1	2	4	4	4	SCAVENGER		SG, LS	30 - 50
Pearl Millet	5	3	3	3	5	5	4	SCAVENGER		SR, LS	20 - 30
Sorghum x Sudangrass	4	3	3	4	5	5	4	SCAVENGER		SM	25 - 70
Buckwheat	5	5	5	3	5	4	2	SCAVENGER		SG, SR	40 - 55
BRASSICAS	1 = Poor 2 = Average 3 = Good 4 = Very Good 5 = Excellent										
Soil First® Radish	5	4	2	5	5	4	4	SCAVENGER		LS	3 - 8
Turnip	5	3	3	3	5	4	3	SCAVENGER		LS	2 - 6
Rapeseed	5	4	4	5	3	4	4	SCAVENGER		SG, LS	4 - 6
Braco Mustard	5	3	5	4	3	4	3	SCAVENGER		SG, LS	6 - 15
Hybrid Brassica	5	3	3	3	4	4	4	SCAVENGER		SR, LS	4 - 8

*SG = Spring SR = Summer LS = Late Summer F = Fall

LET US TAKE THE GUESSWORK OUT OF COVER CROPS WITH OUR

COVER CROP SELECTION TOOL

DLFPICKSEED.CA/FORAGE/COVER-CROP-SELECTION-TOOL

SPECIES ADAPTATION

Species	Use	Longevity (Short • ••••• Long)	Winter-Hardiness (Poor • ••••• Excellent)	Drought Tolerance (Low • ••••• High)	Flood Tolerance (Low • ••••• High)	Salinity Tolerance (Low • ••••• High)	Alkalinity Tolerance (Low • ••••• High)	Acidity Tolerance (Low • ••••• High)	# Seeds Per Kg	# Seeds Per Lb	Growing Period
LEGUMES											
Alfalfa	Hay & Pasture	•••••	•••	••••	•	••	••••	•	440,000	200,000	Spring - Fall
Alsike Clover	Hay & Pasture	•	••	•	•••	•••	••	•••	1,540,000	700,000	Spring
Birdsfoot Trefoil	Pasture	•••••	•••	•••	•••••	••	•••	••••	825,000	375,000	Spring - Fall
Cicer Milkvetch	Pasture	•••••	•••	••••	•	•••	•••	•••	286,000	130,000	Late Spring - Fall
Red Clover	Hay & Pasture	•	•	•	•••••	•	•••	•••	605,000	275,000	Spring
Sainfoin	Pasture	•••••	••	•••••	•	•	•••••	•	66,000	30,000	Spring - Summer
Sweet Clover	Hay & Pasture	• (2 Years)	••	••••	•	•••	•••	•	572,000	260,000	Spring of 2nd Yr
TAME GRASSES											
Annual (Italian) Ryegrass	Hay & Pasture	• (Ann.1 Yr)	•	•	•••••	•	•••	•••	507,000	230,000	Spring - Fall
Creeping Foxtail	Pasture	•••••	•••	•	•••••	•••	•••	•••	1,657,000	753,000	Early Spring - Fall
Creeping Red Fescue	Pasture Lawn	•••••	•••••	•••	•••	•	•••	•••	1,353,000	615,000	Spring - Fall
Crested Wheatgrass	Hay & Pasture	•••••	•••••	••••	•	••	••••	•	485,000	220,000	Early Spring
Dahurian Wildrye	Pasture	•	•••	•••	•	•••••	•••	•	175,000	80,000	Spring - Fall
Intermediate Ryegrass	Hay & Pasture	••	•••	•••	••••• (Low - High)	••	•••	•	194,000	88,000	Late Spring - Mid Summer
Festulolium (Fescue Type)	Hay & Pasture	•••••	••••	••	•••	•••	•••	•••	500,000	227,000	Late Spring - Fall
Festulolium (Ryegrass Type)	Hay & Pasture	•	•	•••	••••	••	•••	••	194,000	88,000	Late Spring - Fall
Kentucky Bluegrass	Pasture Lawn	•••••	•••••	•••	•••	•	•	•	4,800,000	2,182,000	Spring - Fall
Meadow Bromegrass	Hay & Pasture	••	•••	•••••	•	•	•••	•••	176,000	80,000	Early Spring - Late Summer
Meadow Fescue	Pasture	•••••	•••	•••	•••••	••	•	•••	506,000	230,000	Early Spring - Late Fall
Meadow Foxtail	Pasture	•	•••	•	•••••	•	•••	•••••	1,270,000	577,000	Early Spring - Late Fall
Orchardgrass	Hay & Pasture	•••	••	•••	••	•	•	•••	1,439,000	654,000	Early Spring - Fall
Pubescent Wheatgrass	Hay & Pasture	•••••	•••	••••	•	••	•••	•	220,000	100,000	Spring - Fall
Reed Canarygrass	Hay & Pasture	•••••	•••	•••	••••• (Very High)	•	•••	•••	1,175,000	534,000	Spring - Summer
Russian Wildrye	Pasture	•••••	•••••	••••• (Very High)	•	••••• (Very High)	•••••	•••••	385,000	175,000	Spring - Mid Summer
Slender Wheatgrass	Hay & Pasture	•	•••	•••	•	•••••	•••••	•	352,000	160,000	Mid Spring - Mid Summer
Smooth Bromegrass	Hay & Pasture	•••••	•••••	•••	•••	••	•••	•••	300,000	136,000	Mid Spring - Mid Summer
Tall Fescue	Pasture	•••••	•••	••••	••••	•••••	•••••	••••• (Very High)	500,000	227,000	Late Spring - Fall
Tall Wheatgrass	Hay & Pasture	•••••	•••••	•	•••••	••••• (Very High)	••	••	174,000	79,000	Late Spring - Mid Summer
Timothy	Hay & Pasture	•••	•••	•	•••••	•	•	•••••	2,710,000	1,232,000	Spring - Summer

& COMPARISONS

Preferred Climate & Growing Conditions	Positive Features	Negative Features	Plant Type
Widely adapted to most prairie soils but will not Bloat hazard. Needs good drainage. Tolerates periodic flooding.	Easy to establish. High yields, rapid regrowth. Highest nutrition in forages.	Bloat hazard. Needs good drainage.	Rhizomatous, Branch, Tap, Creeping Rooted
Prefers low-lying moist areas.	Easy establishment. Tolerant to poor drainage and acid soils.	Bloat hazard. Short life span and low yield.	Branched
Prefers moist areas.	Non bloating. Reseeds itself. Feed value similar to alfalfa.	Poor seedling vigour. Poor competitor and lower yielding.	Tap Rooted with Branches
Widely adapted but exhibits its creeping habit best on more coarse textured soils.	Non bloating. Hardier than alfalfa. Very aggressive once established	Slow to establish. Hard seeds. Slow regrowth after grazing.	Creeping Rooted
Best suited to humid areas with moderate temperatures.	Easy establishment. Tolerates wetter and more acid soils than alfalfa.	Bloat hazard. Short life span.	Tap Rooted with Side Branches
Best on brown and dark brown soil areas. In very dry areas it yields poorly. Does well on thin gravelly soils.	Non bloating. More drought and cold tolerant than alfalfa.	Poor regrowth. Slow to establish.	Tap Rooted
Especially productive on fertile soils.	Widely adapted. Good for soil and drainage improvement.	Low palatability unless harvested early. Self seeds.	Tap Rooted
Produces best on soils of medium to high fertility and grows best with adequate moisture.	Easy to establish. Very palatable. Good hay or silage or companion crop.	Does not withstand drought or hot weather.	Bunch Grass
Adapted to areas where Reed Canarygrass grows well and soil moisture is continually available.	Suitable for erosion control. Spreads rapidly once it is established.	Light, fluffy seed. Slow establishment. Poor competition during first six weeks.	Sod Forming
Does best in high rainfall areas. Will grow in wide range of soil types.	Tolerates close grazing and areas too dry for timothy. Grows well late summer-freeze up and retains good quality.	High moisture requirement. Vulnerable to Crown Rot, Root Rots and Snow Mold.	Sod Forming
Adapted to dry areas with good soils but will also establish on lighter soils	Excellent for spring pasture. Easy to grow. Withstands close grazing and trampling.	Does not tolerate cool, wet soils. Poor quality after heading out.	Bunch Grass
Adapted to all soil zones.	Highly competitive and quick to establish.	Short lived.	Bunch Grass
Well drained soils with ample moisture.	Easy to establish. Good haygrass with alfalfa. Out yields CWG and smooth bromegrass.	Less winterhardy and drought tolerant than crested wheatgrass.	Sod Forming
Produces best on soils of medium to high fertility and grows best with adequate moisture	Easy to Establish. Very Palatable. Good emergency forage option.	Does not withstand drought or hot weather, short lived.	Bunch Grass
Can be grown on a wide range of soils.	Suitable for grazing. Good regrowth and disease resistance.	Waxy leaf makes it hard to dry down for hay	Sod Forming
Prefers cool and humid. Grows on most soils.	Tolerates close and frequent defoliation. Useful in erosion control.	Dormant in hot, dry weather. Slow establish. High moisture needed. Lower yielding.	Sod Forming
Grows well on most soils where smooth bromegrass does well.	Very palatable. Good after grazing or cutting. Less aggressive than smooth bromegrass.	Mainly a pasture grass. Difficult to put up as hay when in pure stand.	Bunch Grass
Prefers soil with good moisture and good drainage.	Best for pasture. Good fall pasture - stays green late in fall.	Susceptible to heavy grazing. Slow regrowth. Susceptible to leaf rust.	Bunch Grass
Prefers cool moist conditions. High water table.	Earliest grass to grow in spring. Very palatable when young. Reseeds itself.	Light, fluffy seed. Susceptible to drought. Seeds need to be coated for seeding.	Bunch Grass
Prefers moist conditions. Sandy soils are too dry for good growth unless in high rainfall areas.	Easy to establish. Very palatable. Fast regrowth. Makes good hay with alfalfa.	Needs high nitrogen. Moderately winterhardy. Subject to overgrazing.	Bunch Grass
Widely adaptable with respect to precipitation, temperature, elevation and low fertility soil.	Able to stay green into summer months. Hardier than intermediate wheatgrass.	Strong creeping roots get sod bound and result in unproductive stand in a few years.	Sod Forming
Moist cool climate. Poorly drained areas subject to temporary flooding.	Grows well in wet areas. Withstands flooding for up to two months. Grows tall, good yield.	Slow to establish. Nutrition and palatability low when mature.	Sod Forming
Can be grown on a wide range of soils. Most productive on fertile loams.	Salt tolerant, early growth and good for winter grazing.	Poor seedling vigour. Slow to establish.	Bunch Grass
Adapted to wide range of soils but prefers sandy loams.	High salinity tolerance. Cures well on stem. Good seedling vigour. Establishes fast.	Less competitive and persistent than other wheatgrasses. Not tolerant to heavy grazing.	Bunch Grass
Well adapted to all soil zones.	Winterhardy. Good yield. Palatable even at mature growth stage.	Long, light seed is difficult to sow. Becomes sod bound. Slow regrowth.	Sod Forming
Variety of soils. Does well on wet, poorly drained soils.	Suitable for late fall grazing or stock piling. Easy to establish. Good regrowth.	Slow cure when used for hay. Starts growing later than many other grasses in spring.	Bunch Grass
Adapted to saline and imperfectly drained alkali soils.	Salt tolerant. High nutrition in early heading stage.	Slow to establish. Poor vigour and competitive ability. Coarse when mature.	Bunch Grass
Cool moist areas with good drainage.	Low seed cost. Easily established. Excellent horse hay/alfalfa blend. Suitable export.	Susceptible to heat and low moisture conditions. Low palatability at maturity.	Bunch Grass

CORN HYBRIDS

CORN TRAITS

Many grain and silage hybrids contain advanced corn traits that provide a broad spectrum of above and below ground insect and weed control. The chart on this page is designed to help you choose the right corn hybrid to meet your needs.

PROPERTIES OF CORN TRAITS

	Above Ground Pests						Below Ground Pests		Weed Control		Refuge
	European Corn Borer	Southwestern Corn Borer	Corn Earworm	Fall Armyworm	Western Bean Cutworm	Black cutworm	Northern Corn Rootworm	Western Corn Rootworm	Roundup Ready®	LibertyLink®	Minimum Refuge Requirement
											
SmartStax® RIB COMPLETE®	•••	•••	••	•••		•	••	••	•	•	5% RIB*
VT DoublePRO® RIB COMPLETE®	••	••	••	••					•		5% RIB*
Roundup Ready® CORN 2									•		0%

• Single Mode of Action •• Dual Mode of Action ••• Triple Mode of Action

*SmartStax® RIB Complete® and VT Double PRO® RIB Complete® designation contain a blend of 95 traited corn seed and 5 percent refuge (non B.t.) corn seed that farmers can plant across their entire field. Farmers who plant RIB Complete® products will no longer need to plant a separate, structured refuge for insect pests on those given fields.

Roundup Ready® CORN 2 LIBERTY LINK®

Bayer Company 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. These products have been approved for import into key export markets with functioning regulatory systems. Any crop or material produced from these products 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 these products. Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

Insect Resistance Management
Planting Refuges, Preserving Technology

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.

PROTECT YOUR CORN SEED'S PERFORMANCE

MAXIMIZE YOUR CORN'S POTENTIAL WITH SUPERIOR PROTECTION & GREATER FLEXIBILITY. CHOOSE THE ACCELERON® PACKAGE THAT'S RIGHT FOR YOUR FIELD.

SEED APPLIED SOLUTION	PROTECTION	
	 **FUNGICIDE** Excellent control of soil & seed borne disease including Pythium, Rhizoctonia, Fusarium, Phomopsis, Rhizopus, Aspergillus & Penicillium	 **INSECTICIDE*** Protection from early season pests such as wireworm, white grubs & seed corn maggots
ACCELERON® SEED APPLIED SOLUTIONS BASIC	✓	
ACCELERON® SEED APPLIED SOLUTIONS STANDARD DIAMIDE OPTION	✓	✓

*Diamides are a unique class of chemistry that offers an alternative for growers looking for newer, non-neonicotinoid chemistries to add into their programs. Active ingredients in this class of chemistry work by activating ryanodine receptors in insect pests, which results in unregulated calcium release. The calcium stores are then depleted, leading to muscle paralysis and eventual death.

FOR TREATMENT OPTIONS AND AVAILABILITY, SEE YOUR RETAILER OR VISIT ACCELERONSAS.CA.

FOR CORN, EACH ACCELERON® SEED APPLIED SOLUTIONS OFFERING is a combination of separate individually registered products containing the active ingredients: BASIC is a combination of fluoxastrobin, prothioconazole, and metalaxyl. STANDARD is a combination of fluoxastrobin, prothioconazole, metalaxyl and insecticide of either clothianidin or tetraniliprole.

ACCELERON® SEED APPLIED SOLUTIONS

HYBRID CORN: 70 - 85 DAYS TO MATURITY

Variety	Heat Units	Relative Maturity	Value Added Trait	Seeding Rate (,000 PPA)	Emergence	Seedling Vigor	Stalk Strength	Root Strength	Stay Green	Stress Tolerance	Test Weight	Silage Potential	North Leaf Blight	Gray Leaf Spot	Common Rust	Goss's Wilt	Flowering	Plant Height	Grain Type	Dry Down
HYBRID CORN					1 = Poor				5 = Excellent				- = Not Available							
DLF 2076VT2P RIB	1950	72	VT DoublePRO RIB COMPLETE	32 - 36	●●●	●●●	●●●	●●●	●●	●●●	●●●	●●	●●	●	-	●●	E	M	D	Fast
DLF 2142RR	2000	75	Roundup Ready CORN 2	32 - 36	●●●	●●●	●●●	●●●	●●	●●●	●●●	●●	●●	●	●●	●●	E	SM	D	Fast
DLF 2210VT2P RIB	2125	77	VT DoublePRO RIB COMPLETE	32 - 36	●●●	●●●	●●●	●●●	●●	●●●	●●	●●	●●	●	●●	●●	E	T	D	Fast
DLF 2320RR	2200	78	Roundup Ready CORN 2	30 - 34	●●●	●●●	●●●	●●	●●	●●●	●●●	●●●	●●	●●	●●	●●	E	T	F-D	Slow
DLF 2321VT2P RIB	2225	78	VT DoublePRO RIB COMPLETE	30 - 34	●●●	●●●	●●●	●●	●●	●●●	●●●	●●●	●●	●●	●●	●●	E	T	F-D	Slow
DLF 2332	2250	79		32 - 36	●●●	●●●	●●●	●●●	●●	●●●	●●●	●●●	●●	●●	●●	-	VE	M	F	Slow
DLF 2333RR	2275	79	Roundup Ready CORN 2	32 - 36	●●●	●●●	●●●	●●●	●●	●●●	●●●	●●●	●●	●●	●●	-	VE	M	F	Slow
NEW																				
DLF 2334VT2P RIB	2300	80	VT DoublePRO RIB COMPLETE	32 - 36	●●●	●●●	●●●	●●●	●●	●●●	●●●	●●●	●●	●●	●●	-	VE	M	F	Slow
DLF 2495RR	2325	80	Roundup Ready CORN 2	30 - 34	●●●	●●●	●●●	●●●	●●	●●●	●●●	●●●	●●	-	-	●●	E	VT	F	Slow
DLF 2563GSX RIB	2400	83	SmartStax RIB COMPLETE	32 - 36	●●●	●●	●●●	●●●	●●	●●●	●●	●●●	●●	●●	●●	●●	E	M	D	Fast
DLF 2571GSX RIB	2500	85	SmartStax RIB COMPLETE	32 - 36	●●●	●●●	●●●	●●●	●●	●●●	●●	●●●	●●	●●	-	●●	E	MT	D	Fast

FLOWERING VE = Very Early E = Early EM = Early-Medium M = Medium ML = Medium-Late L=Late
PLANT HEIGHT S = Short SM = Short-Medium M = Medium MT = Medium-Tall T=Tall VT=Very Tall
GRAIN TYPE D = Dent F=Flint F-D= Flint-Dent

NEW

DLF 2334VT2P RIB

- Impressive dual purpose
- Uniform ear development
- Excellent staygreen

CHU: 2300
RM: 80

VT DoublePRO RIB COMPLETE

Seedling Vigour	4
Stalk Strength	4
Dry Down	3
Test Weight	5
Silage Potential	5

SILAGE SPECIFIC LEAFY HYBRIDS

Variety	Heat Units	Relative Maturity	Value Added Trait	Seeding Rate (,000 PPA)	Emergence	Seedling Vigor	Stalk Strength	Root Strength	Stay Green	Stress Tolerance	Plant Height	Cob Colour	Milk/Tonne	Milk/Acre
LEAFY CORN HYBRIDS					1 = Poor	5 = Excellent		- = Not Available						
DLF ExSeed LF RR	2450	85	Roundup Ready 2 CORN	28 - 30							T	W		
DLF ExAmine LFF RR	2525	86	Roundup Ready 2 CORN	28 - 30							T	R		
DLF ExPand LF RR	2625	90	Roundup Ready 2 CORN	26 - 28							VT	W		
DLF ExPert LF RR	2700	93	Roundup Ready 2 CORN	26 - 28							VT	W		
DLF ExPect LFF RR	2750	94	Roundup Ready 2 CORN	26 - 28							VT	W		

PLANT HEIGHT S = Short SM = Short-Medium M = Medium MT = Medium-Tall T=Tall VT=Very Tall
COB COLOUR W = White R = Red

DLF EXAMINE LFF RR

- Full floury leafy corn silage
- Early season development

CHU: 2525
RM: 86

Roundup Ready 2 CORN

Seedling Vigour	5
Stalk Strength	3
Emergence	5
Height	4

DLF EXPECT LFF RR

- Full floury Leafy corn silage
- White cob
- Very tall plant height

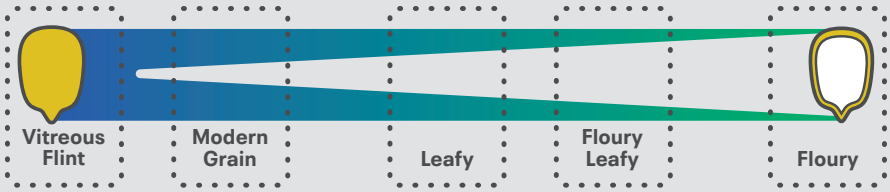
CHU: 2750
RM: 94

Roundup Ready 2 CORN

Seedling Vigour	5
Stalk Strength	4
Emergence	5
Height	5

CHOOSING THE RIGHT HYBRID FOR YOUR CORN SILAGE NEEDS

CORN KERNEL COMPOSITION TYPES:



Dual purpose and BMR hybrids have a modern grain type kernel with more vitreous starch.

Leafy and Floury Leafy corn silage hybrids have more floury kernel types for a boost in starch digestibility.

DUAL PURPOSE

- Convenient harvest options
- Higher planting populations (higher seed cost)
- High vitreous starch (less starch digestibility)

LEAFY

- Silage specific harvest option
- Lower planting populations (lower seed cost)
- More leaves above the ear (increased tonnage)
- Less vitreous and more floury starch (improved starch digestibility)

FLOURY LEAFY

- Silage specific harvest option
- Lower planting populations (lower seed cost)
- More leaves above the ear (increased tonnage)
- High floury starch (increased starch digestibility)

GRAIN 35,000 PPA **LEAFY 28,000 PPA**

WORKING WITH DLF

OUR WORLD CLASS SEED IS PRODUCED BY THE FINEST GROWERS IN THE INDUSTRY

IT TAKES 15 YEARS OF RESEARCH & DEVELOPMENT FOR A NEW VARIETY TO MAKE IT INTO A DLF SEED BAG!

YEAR 1-4

Different legumes and grasses are crossed in order to find new and improved breeding lines. These new lines are then propagated for test seed samples and sown in thousands of test plots.

YEAR 5-8

The new breeding lines are tested under different climatic conditions around the world to evaluate their performance. Only the best varieties continue in our program.

YEAR 9-11

The very best varieties are put into initial seedstock production by our breeders.

YEAR 12-13

Seedstock is planted by our experienced seed growers.

YEAR 14

Certified seeds are harvested, cleaned and samples are taken and tested for purity and germination in our own laboratories.

YEAR 15+

After careful selection the varieties are mixed and packed into our bags at our dedicated warehouse.

CUSTOMER SERVICE

At DLF we strive to provide industry leading customer service. We will provide the tools and support you need to succeed! We're proud of the people and relationships that make up DLF. The knowledge, expertise, loyalty and trust they bring are essential to our ability to deliver value to our customers, and to our continued success. We build a culture of trust through the following customer service standards:

ABOUT DLF CANADA INC. ...

DLF Canada Inc. was formed in 2022. DLF was founded in 1906 and is the global market leader in the research, development, production and distribution of turfgrass and forage crop seed.

DLF is owned by 3,000 Danish seed growers and has subsidiaries or sales offices in 22 countries around the world.

DLF Canada Inc. is headquartered in Lindsay, Ontario. Our brands are backed by a trusted and proven reputation for quality, agronomic advice and a commitment to research and technology. Our dedicated team provides practical and effective solutions to improve your profitability and reduce your operating risk.

COMMUNICATION

Customers can expect and trust professional advice and support

COMMITMENT

Customers can expect delivery of quality products and friendly service

CREDIBILITY

Customers can expect added value by working with us

CONTACTS

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