



Alforex
Seeds TM
BY DLF

2025

Product Guide

AT ALFOREX®

we think you should expect more from your alfalfa and forage crops. High yields, solid agronomics, better forage quality and improved fiber digestibility are all reasonable requirements for these crops, but perhaps now is the time to reach a little higher. **Time to grow your performance expectations.**

That may be a bold challenge, but over the last several years we've seen the power in that type of thinking. Whether it's Hi-Ton® alfalfa, Hi-Salt salinity tolerant varieties or the industry leading Hi-Gest® family of performance alfalfas, each can make a real difference on the farm. And if you could take a peek at our pipeline, you'd see we've only just scratched the surface.

Our promise to you is that we'll continue leading the way and pushing the industry to new heights. We'll stay committed to alfalfa and forage. And we'll do our best to help you get more out of your alfalfa and forage crops.

Our name stands for ALFalfa and FORage EXcellence. That's our focus, and when you use our products, that commitment shines through in every bag.

FOCUSED ON PERFORMANCE

Alforex® brand products deliver a wide range of agronomic solutions tailored to where and how you farm. Real solutions—like salinity and stress tolerance, improved persistence, yield performance, better fiber digestibility for feed efficiency and nutrition, adding value through more milk, more meat and greater productivity per acre.

FOCUSED ON INNOVATION

Decades of alfalfa research results in a fast paced environment of continual innovation devoted exclusively to alfalfa and forages. That means you can rely on us for groundbreaking products along with steady advances in yield, quality, pest resistance, stress tolerance and persistence.

FOCUSED ON YOU

When you choose AlforexSeeds, you benefit from dedicated technical experts and a sales team who focuses solely on alfalfa and forages. Their insight and experience across millions of acres when combined with the knowledge you have of the specific conditions on your farm, will find the best seed solution for you. When it comes time to plant, you won't rely on speculation; you'll rely on proven expertise.



Alforex Seeds + DLF: Seeds & Science, Delivered

DLF and La Crosse Seed are ready to welcome you to a new era in alfalfa following DLF's acquisition of the Corteva Agriscience™ alfalfa breeding program and related assets. DLF (Dansk Landbrugs Frøelskab) which translates to the "Danish Farmers Organization's Seed Supplier" was founded in 1872. DLF is owned by 3,000 growers specializing in growing and developing forage and turf seeds.

DLF is a global leader in the development of innovative forage products. DLF's US business is headquartered in Albany, Oregon together with a large portion of DLF's North American research and seed production activities. DLF operates a distribution focused business through La Crosse Seed which includes strategically placed warehouses across the United States.

Still the products you know and trust, now under Forage First, you are supported by a worldwide organization with a tremendous passion for innovation and commitment to helping deliver the absolute best forage products. As we move forward, our goal is to provide continuity to the alfalfa products you have been accustomed to sourcing along with all the other forage, cover crop, and other specialty seed products you may require.

Still the Alforex Seeds® you know and trust, now supported by a worldwide organization with a tremendous passion for innovation and a commitment to helping deliver the absolute best forage products.

As we move forward, our goal is to provide continuity to the alfalfa products you and your customers have been accustomed to sourcing along with all the other forage, cover crop, and other specialty seed products you may require.



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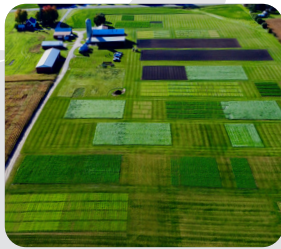
GROWING WITH DLF

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.

Connell, Washington USA



Port Hope, Ontario Canada



West Salem, Wisconsin USA



Philomath, Oregon USA



Berry, Kentucky USA



THE WORLD OF DLF

TESTING

- DLF head-to-head comparisons test current products against competitor check and experimental varieties
- This rigorous testing gives an ability to identify varieties with superior yield, persistence, faster regrowth, exceptional forage quality and superior disease resistance

DLF's Research trials provide 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!

DLF is the proven leader in developing forage grass and clover varieties that are adapted to diverse climatic and soil conditions. Our intensive breeding program is constantly developing new varieties of grass and clover species that will out-perform older generation genetics in yield, palatability, and forage quality.



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



X-Force is a new generation of varieties that utilize several technologies to achieve a new level of performance. Hybrid technology, heterosis among extremely diverse germplasm pools, an extensive progeny testing yield trial program, and a drone imagery program have all contributed to a new exciting level of genetic gain. This combination of technologies allows traits to be combined as never before and provides yield resiliency and stability across environments and weather extremes like never before.



X-Force
ELITE ALFALFA PERFORMANCE

NEW



**X-Force
5400**

- A race horse variety with exceptional yield
- Very good forage quality when managed aggressively.
- Excellent 35/35 disease package allowing it to perform exceptionally well over a wide range of environments.
- Superior winter survival
- Has High Resistance to Aphanomyces Race 2

Agronomics

Yield rating:	5 or Best
Fall dormancy class	FD 4
Winter hardiness class	1.8
FastGrowth rating	1.82

Pest Package

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



On-farm performance

Varieties with Hi-Gest[®] have been proving their extra performance and value since the 2015 growing season. Livestock respond to the improved fiber digestibility and forage intake increases as expected when Hi-Gest forage is included in the ration. Dairymen who grow their own forage are rapidly converting their acres to Hi-Gest to take advantage of the higher digestibility, while commercial hay growers who focus on quality for their clients are being rewarded for preserving the identity of these higher performing lots of hay.

Balancing yield and quality

Lignin is the complex organic compound that hardens and strengthens the plant's cell walls. In mature plants, **lignin increases yield, but negatively affects forage quality** and interferes with animal digestion. To minimize this dilemma, producers have traditionally found a compromise between yield and quality by harvesting at late-bud stage to one-tenth flower. Today's Hi-Gest varieties with faster fiber digestibility provide growers additional management flexibility around the traditional yield versus quality dilemma.

Through focused breeding Hi-Gest developed varieties offer high yield potential, **a 5-10% increased rate of fiber digestion** which improves animal intake; **increased extent of fiber digestion (as measured by UNDF 240) by 5-10%, and raises crude protein of the forage by 3-5%** when compared to other conventional varieties*. The net impact is higher testing, higher value hay which can mean 2.5 or more pounds of milk per cow per day when fed versus other conventional varieties.

Management flexibility

Alfalfa varieties with Hi-Gest will easily fit into your alfalfa management system. The varieties have the flexibility to adjust to aggressive harvest systems to maximize yield and quality or to more relaxed schedules focused on tonnage. Either way, growers put the odds of improved returns per acre and animal performance in their favor.

Ask your Alforex Seeds Dealer

They can tell you who's growing Hi-Gest alfalfa in your area and share their experiences with you. You may be surprised who has already made the move!



Performance

- A high yield potential variety with Hi-Gest[®] Alfalfa Technology with improved fiber digestibility, intake and extent of digestion versus other semi-dormant alfalfas
- A product of conventional plant breeding
- Elite genetics with a 5-8% increase in leaf-to-stem ratio to improve quality and crude protein

Management

- Responds to today's recommended alfalfa best management practices
- Adapted to aggressive high quality or more relaxed high tonnage management systems
- Rations are easily balanced by a nutritionist with an accurate feed test to take advantage of this technology

Appearance at Harvest Maturity

- Plants are medium-tall, very leafy and have more stems per crown than most semi-dormant alfalfas
- High leaf-to-stem ratio results in more crude protein than most other conventionally bred semi-dormant alfalfa varieties at harvest maturity

Agronomics

Yield rating:	5 or Best
Fall dormancy class:	FD 6
Multifoliate leaf expression:	High MF
Salinity tolerance:	
Germination:	Tolerant
Forage Production:	Tolerant

Pest Package

	HR	R	MR	LR	S
Diseases					
Anthracnose	●				
Bacterial wilt	●				
Fusarium wilt	●				
Phytophthora root rot	●				
Verticillium wilt	●				
Insects					
Cowpea aphid	●				
Pea aphid	●				
Nematode Resistance					
Northern root knot	●				
Southern root knot	●				
Stem nematode		●			

Yield Ratings:

Based on performance between Alforex Seeds varieties
5 = Best 3 = Average 1 = Poor



AFX 460

A patent pending variety

Performance

- A high yield potential variety with Hi-Gest® Alfalfa Technology for geographies using fall dormancy 4-5 varieties
- A product of forward breeding for improved yield and forage quality
- Features improved fiber digestibility and better animal performance when compared to other conventionally bred varieties. Variety patent pending

Management

- Responds to today's recommended best management practices
- Adapted to aggressive high quality production systems or more relaxed high yield practices
- No known soil type limitations

Appearance at Harvest Maturity

- Plants are medium-tall with a dense canopy of dark green leaves up and down the stems
- A strong foliar leaf disease package contributes to a high leaf-to-stem ratio and higher crude protein

Agronomics

Yield rating:	5 or Best
Fall dormancy class:	FD 4
Winter hardiness class:	WS 1.5
Multifoliate leaf expression:	93%/High MF
FastGrowth rating:	2.03cm per day/Fast

Pest Package

HR	R	MR	LR	S
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Diseases

Anthracnose	●				
Aphanomyces-Race 1	●				
Aphanomyces-Race 2		●			
Bacterial wilt	●				
Fusarium wilt	●				
Phytophthora root rot	●				
Verticillium wilt	●				

Insects

Blue alfalfa aphid		●			
Cowpea aphid			●		
Pea aphid		●			
Spotted alfalfa aphid		●			

Nematode Resistance

Northern root knot		●			
Stem nematode		●			



Hi-Gest® 360

A patent pending variety

Performance

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

Management

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

Appearance at Harvest Maturity

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

Agronomics

Yield rating:	5 or Best
Fall dormancy class:	FD 3
Winter hardiness class:	WS 1.5
Multifoliate leaf expression:	73%/Moderate MF
FastGrowth rating:	1.83cm per day/Average

Salinity tolerance:

Germination: Tolerant

Pest Package

HR	R	MR	LR	S
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Diseases

Anthracnose	●				
Aphanomyces-Race 1	●				
Aphanomyces-Race 2	●				
Bacterial wilt	●				
Fusarium wilt	●				
Phytophthora root rot	●				
Verticillium wilt	●				

Insects

Blue alfalfa aphid		●			
Cowpea aphid		●			
Pea aphid			●		
Spotted alfalfa aphid	●				

Nematode Resistance

Northern root knot		●			
Stem nematode		●			



“This is our first field of Hi-Gest and it's doing well! The first three crops are testing better than neighboring circles of competitive varieties. So far, we like what we see!”

*Mike Nielson
Columbia View Farm
Basin City, WA*





There are six Alforex alfalfa varieties that have earned the Hi-Ton® designation. These varieties are AFX 779, AFX 589, AFX 579, AFX 479, AFX 469, and AFX 439. Each has exceeded the yield of peer experimentals, and commercial alfalfa varieties by 5% in Alforex Seeds replicated testing, the minimum threshold for Hi-Ton® alfalfa. Alforex alfalfa varieties carrying the Hi-Ton® designation are the first choice for the aggressive manager pushing their alfalfa acres to maximize seasonal dry matter yield.

When alfalfa fields are green and growing, chances are they are generating extra yield. The faster recovery after harvest **speeds green-up by 3 to 5 days**, shortening the days to harvest maturity and the next cutting. This faster growth starts with the first crop and gives a head start to each season and the number of cuts taken before the fall cutoff. Along the way, more of the season's total yield is harvested at mid-summer when heat units are at their peak and weather can be more cooperative.

To carry the FastGrowth rating, Hi-Ton varieties must average at least 1.98 cm of growth per day starting with spring green-up. Most commercial varieties range from 1.5 to 1.8 cm per day, which gives FastGrowth varieties a performance advantage in the field.



YIELD
Hi-Ton® Hi-Salt
PERFORMANCE ALFALFA SALINITY TOLERANT ALFALFA

AFX 779

Performance

- A high yield potential, semi-dormant Hi-Ton® designated variety for California, Arizona, New Mexico and western Texas

Management

- Stable yield performance into the later production years
- Adapted to five or six cut aggressive management systems
- Features salinity tolerance and a strong aphid resistance package
- Average regrowth, green-up recovery after cutting

Appearance at Harvest Maturity

- Medium-tall plants with moderate ML expression

Agronomics

Yield rating:	5 or Best
Fall dormancy class:	FD 7
Multifoliate leaf expression:	Moderate MF
FastGrowth rating:	Average
Salinity tolerance:	
Germination:	Tolerant
Forage Production:	Tolerant

Pest Package

	HR	R	MR	LR	S
Diseases					
Anthracnose		●			
Bacterial wilt		●			
Fusarium wilt		●			
Phytophthora root rot		●			
Verticillium wilt		●			
Insects					
Blue alfalfa aphid	●				
Cow pea aphid	●				
Pea aphid	●				
Spotted alfalfa aphid	●				
Nematode Resistance					
Southern root knot	●				
Stem nematode	●				

NEW

YIELD
Hi-Ton®
PERFORMANCE ALFALFA

AFX 589

Performance

- For growers who aggressively manage and harvest their alfalfa acres to maximize seasonal dry matter yield and quality.

- Show a 5% yield advantage over AFX 579.
- 34/35 disease and pest package with a solid winterhardiness score for stand persistence.

Management

- Fast-growing variety for production areas that use fall dormancy 4 and 5 alfalfas, and when four or more cuts are expected each season.
- Very fast green-up after harvest and accelerated growth to harvest maturity.
- Adapted to regions that harvest 4 or more cuttings per year.

Appearance at Harvest Maturity

- Tall and show plant with dark green leaves

Agronomics

Yield rating:	5 or Best
Fall dormancy class:	FD 5
Winter hardiness class:	WS 1.5
Multifoliate leaf expression:	49%/Low MF
FastGrowth rating:	2.19cm per day/Average

Pest Package

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

Yield Ratings:
Based on performance between Alforex Seeds varieties
5 = Best 3 = Average 1 = Poor



AFX 579

Performance

- For growers who aggressively manage and harvest their alfalfa acres to maximize dry matter yield per acre
- FastGrowth ability shaves 3 to 5 days off the time between harvests to maximize seasonal yield
- Carries a strong, multiple-pest package to protect fast-growing plants and aggressively managed acres

Management

- Fast-growing variety for production areas that use fall dormancy 4 and 5 alfalfas, and when four or more cuts are expected each season
- Very early harvest maturity; reaches late bud or early flower 3 to 5 days ahead of most dormant alfalfas
- Very fast green-up after harvest and accelerated growth to harvest maturity

Appearance at Harvest Maturity

- Tall and showy, with large dark green leaves

Agronomics

Yield rating:	5 or Best
Fall dormancy class:	FD 5
Winter hardiness class:	WS 2.5
Multifoliate leaf expression:	49%/Low MF
FastGrowth rating:	2.26cm per day/Very Fast

Pest Package

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



AFX 479

NEW

Performance

- For growers who aggressively manage their established alfalfa acres.
- Shows a 6% yield advantage over AFX469.
- 35/35 disease and pest package with a very strong winterhardiness allows alfalfa growers to maximize seasonal yield with ease of mind for stand persistence.

Management

- Fast-growing variety for production areas that use fall dormancy 4 and 5 alfalfas, and when four or more cuts are expected each season.
- Fast green-up after harvest and accelerated growth to harvest maturity.
- Works extremely well when alfalfa growers desire to harvest at 24-25 days to maximize forage quality and seasonal yield.

Appearance at Harvest Maturity

- Tall and showy, with large dark leaves

Agronomics

Yield rating:	5 or Best
Fall dormancy class:	FD 4
Winter hardiness class:	WS 1.5
Multifoliate leaf expression:	27%/Low MF
FastGrowth rating:	1.97cm per day/Fast

Pest Package

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



AFX 469

Performance

- For growers who aggressively manage their established alfalfa acres
- A 11% yield advantage versus PGI 557
- FastGrowth ability shaves 3 to 5 days off the time between harvests to maximize seasonal yield
- A strong 1.5 winter survival rating

Management

- Fast-growing variety for production areas that use fall dormancy 4 and 5 alfalfas, and when four or more cuts are expected each season
- Average seedling year yield performance when spring direct seeded
- Very early harvest maturity; reaches late bud or early flower 3 to 5 days ahead of most dormant alfalfas
- Very fast green-up after harvest and accelerated growth to harvest maturity

Appearance at Harvest Maturity

- Tall and showy, with large dark green leaves

Agronomics

Yield rating:	5 or Best
Fall dormancy class:	FD 4
Winter hardiness class:	WS 1.5
Multifoliate leaf expression:	47%/Low MF
FastGrowth rating:	2.11cm per day/Fast

Pest Package

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



AFX 439

Performance

- A widely adapted variety that will maximize yield and quality under aggressive management systems
- Strong disease and pest package including stem nematodes for western growers
- High performing variety with excellent yield performance when longer rotations are desired

Management

- Adapted to production zones all across the U.S. where fall dormancy 3, 4 or 5 varieties are normally recommended
- Provides high quality forage when aggressively managed for dairy feed
- A Hi-Ton® variety with a fast green-up rate after harvest
- Expected to perform very well in mixtures with cool season grasses or other legumes

Appearance at Harvest Maturity

- Plants at bud stage will be medium-tall and feature a uniform canopy of large, medium-green leaves

Agronomics

Yield rating:	5 or Best
Fall dormancy class:	FD 4
Winter hardiness class:	WS 1.5
Multifoliate leaf expression:	68% MF
FastGrowth rating:	2.01cm per day/Fast

Pest Package

HR	R	MR	LR	S
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Diseases

Anthraxnose	●				
Aphanomyces-Race 1	●				
Aphanomyces-Race 2		●			
Bacterial wilt	●				
Fusarium wilt	●				
Phytophthora root rot	●				
Verticillium wilt	●				

Insects

Blue alfalfa aphid		●			
Cowpea aphid	●				
Pea aphid		●			
Spotted alfalfa aphid	●				

Nematode Resistance

Stem nematode		●			
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Yield Ratings:

Based on performance between Alforex Seeds varieties

5 = Best 3 = Average 1 = Poor



“I like AFX 579 Hi-Ton Alfalfa. It has good regrowth and tests well for us. The fast regrowth has really helped it establish well.”

*Neil Burken
Galesville, WI*

“The performance is all there with AFX 469. Nutritionally, we could tell when we hit it in the silo.”

*Steve and Shelly Becker
Git-R-Done Farm
Auburndale, WI*





Soil salinity's impact on yield

Salinity is a natural byproduct of irrigated and dryland agriculture in low rainfall areas. Over time, soluble salts move upward in the soil profile and when rainfall or irrigation are not sufficient to leach accumulating soluble salts from the root zone, salinity begins to interfere with crop growth.

Salinity of soil and irrigation water is usually measured and expressed as ECs or Electrical Conductivity. Soil with an EC range of less than 1.0 will have little effect on germination or yield. Soils with an EC measurement of 4.0 can increase seeding mortality by 35% and decrease yield by 15%. **For every EC point above a variety's salinity threshold, yield decreases by 7.5%.***

Alforex® Salinity Tolerant Alfalfa

Through focused breeding, Alforex has developed salinity tolerant varieties that reduce the impact of salinity by 2.0 to 3.0 EC points. For a field with EC measurements approaching EC 4.0, the expected 35% seedling mortality and 15% yield loss can be reduced to a negligible amount.** And for fields with even higher levels of salinity, varieties with the salinity tolerant trait have allowed producers to plant alfalfa in areas where it was otherwise thought to be impossible.



AFX 647

Performance

- Semi-dormant variety with excellent performance for high yields and forage quality
- Germination and forage salinity tolerance for tough soils
- Demonstrates a 4% yield advantage over Cisco II in alfalfa yield trials

Management

- Well adapted to the transitional zone between dormant and non-dormant alfalfas
- Fits the wide range of soil types, production practices and harvest systems found in the transitional zone
- Medium harvest maturity, fast recovery after harvest and persistence for medium and longer rotations

Appearance at Harvest Maturity

- Medium-tall plant with large medium green leaves

Agronomics

Yield rating:	5 or Best
Fall dormancy class:	FD 6
Winter hardiness class:	–
Multifoliate leaf expression:	Trifoliate
Salinity tolerance:	
Germination:	Tolerant
Forage Production:	Tolerant

Pest Package

	HR	R	MR	LR	S
Diseases					
Anthraxnose	●				
Bacterial wilt	●				
Fusarium wilt	●				
Phytophthora root rot		●			
Verticillium wilt		●			
Insects					
Blue alfalfa aphid		●			
Cowpea aphid		●			
Pea aphid			●		
Spotted alfalfa aphid		●			
Nematode Resistance					
Northern root knot	●				
Southern root knot	●				
Stem nematode		●			



NEW



AFX 467

Performance

- Salinity tolerant variety with excellent performance with high yield potential, persistence and quality when planted in tough soils.
- Excellent choice for the Great Plains and Intermountain West where salinity can limit production due to high EC fields or high EC irrigation water.
- 34/35 disease and pest package for challenging soils.

Management

- Fits a wide range of soil types and production practices where fall dormancy 3,4, or 5 alfalfas are grown.
- No yield drag when planted in non-saline soils.
- Medium-early maturity

Appearance at Harvest Maturity

- Medium-tall plant height with dense medium green leaves.

Agronomics

Yield rating:	5 or Best
Fall dormancy class:	FD 4
Winter hardiness class:	WS 2
Multifoliate leaf expression:	53%/Low MF
FastGrowth rating:	
Salinity tolerance:	
Germination:	Tolerant
Forage Production:	Tolerant

Pest Package

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



AFX 457

Performance

- Carries the complete package for high yield potential, persistence and forage quality when establishing and growing alfalfa on high EC fields or when using high EC irrigation water
- Adapted to all areas of the Great Plains and Intermountain West where salinity typically limits the production of dairy quality hay
- Aggressive seedling growth for rapid stand establishment with or without salinity

Management

- No yield drag when planted into non-saline soils
- Fits western production practices and geographies where fall dormancy 3, 4 or 5 alfalfas are grown
- Medium-early maturity to fit late-bud harvest systems to maximize the harvest for the area each season

Appearance at Harvest Maturity

- Medium-tall plants with large, medium-green leaves

Agronomics

Yield rating:	5 or Best
Fall dormancy class:	FD 4
Winter hardiness class:	WS 2
Multifoliate leaf expression:	76%/Moderate MF
FastGrowth rating:	1.84cm per day/Average
Salinity tolerance:	
Germination:	Tolerant
Forage Production:	Tolerant

Pest Package

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



RUGGED II

Performance

- Especially well adapted to the Northern Great Plains and higher elevations of the Intermountain West
- Fits irrigated or dryland crop management systems
- Improved disease package for challenging soils
- Bred for improved yield performance over Rugged and performs very well under normal or challenging environments including grazing, salinity and traffic/compaction tolerance

Management

- Variety that fits a 2-4 cut system for hay or grazing management
- Exceptional winter hardiness allows for longer rotations
- Medium-late harvest maturity

Appearance at Harvest Maturity

- Medium-short plant height and a very dense, full canopy of medium green leaves

Agronomics

Yield rating:	3
Fall dormancy class:	FD 3
Winter hardiness class:	WS 1.5
Multifoliate leaf expression:	Trifoliate
FastGrowth rating:	1.62cm per day/Very Slow
Salinity tolerance:	
Germination:	Tolerant
Forage Production:	Tolerant

Pest Package

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



AFX 317

Performance

- Adapted to the Northern Great Plains and higher elevations of the Intermountain West where salinity may limit production.
- Excellent yield potential with or without limits of salinity.
- 35/35 disease and pest package for challenging soils.

Management

- Variety that fits a 2-4 cut system for hay, silage or grazing management.
- Exceptional winter hardiness allows for longer rotations.
- Medium-late harvest maturity

Appearance at Harvest Maturity

- Medium-short plant height with dense, full canopy of medium green leaves.

Agronomics

Yield rating:	5 or Best
Fall dormancy class:	FD 3
Winter hardiness class:	WS 1.5
Multifoliate leaf expression:	78%/High MF
FastGrowth rating:	1.92cm per day/Average
Salinity tolerance:	
Germination:	Tolerant

Pest Package

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

Yield Ratings:

Based on performance between Alforex Seeds varieties

5 = Best 3 = Average 1 = Poor

HybriForce®

HYBRID ALFALFA

HybriForce alfalfa varieties, unique to DLF, are alfalfa hybrids that are developed similarly to corn where the first generation cross between two unique parents are put in the bag on the farm providing that extra level of performance. Cytoplasmic male sterility is used in female parent seed and hybrid commercial production to control pollination and ensure the first generation cross ends up in the bag at a level greater than 75%.

The first generation hybrid was released in 2001. We are now into the 4th generation hybrid. Before we release a new generation hybrid we must have at least a 5% yield increase over the previous generation hybrid!

Here are some key attributes of hybrid alfalfa:

- Excellent combination of forage yield and forage quality
- Hybrids establish extremely well
- The added seedling vigor of hybrids provide uniform stands that leave little room for weeds to get established.
- Hybrid has excellent leaf retention in addition to yield
- If cutting is delayed, hybrids tend to keep growing and forage quality declines less
- Fine stems of hybrids dry down better than large stemmed varieties.
- Hybrids tend to maintain their quality better than non-hybrids throughout the season



HybriForce
GEN-4 HYBRID ALFALFA



HybriForce-4400

- Our highest-yield potential tap-root hybrid alfalfa
- Gen-4 hybrid alfalfa using msSunstra® Hybrid Alfalfa Technology
- 6.9% yield advantage* against competitors in 502 head-to-head, side-by-side comparisons
- 5% higher yielding** than HybriForce-3400 in over 5 years of research testing
- Outstanding yield potential in the establishment year
- Racehorse-style of hybrid alfalfa with excellent disease protection
- Broadly adaptive alfalfa that excels in a wide range of environments
- Tall, dense, leafy hybrid alfalfa with fine stems
- Resistance to Aphanomyces race

Agronomics

Forage rating:	5
Fall dormancy class	FD 4
Winter hardiness class	WS 2
Forage quality	4
Early seedling growth	5
Recovery rate	5

Pest Package

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

Nematode Resistance

	HR	R	MR	LR	S
Nematode Resistance					
Northern root-rot			●		
Stem nematode	●				

HybriForce
GEN-4 HYBRID ALFALFA



HybriForce-4420/Wet

- Latest release that raises the yield potential for wet soils
- Gen-4 hybrid alfalfa using msSunstra® Hybrid Alfalfa Technology
- Our best branch-root alfalfa for tough establishment
- Excellent 35/35 disease resistance rating
- Outstanding yield potential in the seeding year
- Tall, dense, leafy hybrid alfalfa with fine stems
- Highly resistant to Aphanomyces root rot race 1 & 2
- Exhibits unique ability to modify root structure to match conditions

Agronomics

Forage rating:	5
Fall dormancy class	FD 4
Winter hardiness class	NA
Forage quality	4
Early seedling growth	5
Recovery rate	5

Pest Package

	HR	R	MR	LR	S
Diseases					
Anthracnose	●				
Aphanomyces-Race 1	●				
Aphanomyces-Race 2	●				
Bacterial wilt	●				
Fusarium wilt	●				
Phytophthora root rot	●				
Verticillium wilt	●				

Nematode Resistance

	HR	R	MR	LR	S
Nematode Resistance					
Stem nematode		●			



HybriForce-3600

- Gen-3 hybrid using msSunstra® Hybrid Alfalfa Technology
- 5% higher yield than HybriForce 2600 in head-to-head trials
- Very strong yield performance over the life of the stand
- Excellent pest resistances

Agronomics

Forage rating:	5
Fall dormancy class	FD 6
Winter hardiness class	NA
Forage quality	4
Early seedling growth	5
Recovery rate	5

Pest Package

HR	R	MR	LR	S
----	---	----	----	---

Diseases

Anthracnose	●				
Aphanomyces-Race 1					
Aphanomyces-Race 2					
Bacterial wilt	●				
Fusarium wilt	●				
Phytophthora root rot		●			
Verticillium wilt		●			

Insects

Blue alfalfa aphid	●				
Cowpea aphid		●			
Pea aphid		●			
Spotted alfalfa aphid	●				

Nematode Resistance

Northern root-rot	●				
Southern root-rot	●				
Stem nematode	●				

*In 2017-2020 HybriForce-4400™ was grown in 502 on-farm HAY (Hybrid Alfalfa Yield) plot comparisons across ND, SD, MN, IA, WI, IL, IN and MI with a yield advantage of 6.9% across all cuts at all locations against competitive alfalfas. Hybrid responses are variable and subject to any number of environmental, disease and pest pressures.

**In over 5 years of research testing, our combined data from internal and 3rd party trials show HybriForce-4400™ with more than a 5% yield advantage when compared to HybriForce-3400.™



HybriForce alfalfas are products of DLF exclusive patented msSunstra® Hybrid Alfalfa Technology.

Yield Ratings:

Based on performance between Alforex Seeds varieties

5 = Best 3 = Average 1 = Poor



LA CROSSE SEED PROVIDES A FULL RANGE OF PRODUCTS TO MEET YOUR NEEDS:



FORAGES

- Forage grasses
- Forage legumes
- Forage mixes
- Seed inoculants
- Conservation seed/mixes
- Small grains
- Custom forage mixes



TURF

- Turf seed
- Turf mixes
- Custom turf mixes
- Conservation mixes
- Erosion control



SUMMER ANNUALS

- Sorghum x Sudan
- Sudangrass
- Forage Sorghum
- Millets
- Teffgrass



COVER CROPS

- Cover crop seed
- Cover crop mixes
- Custom cover crop mixes
- Seed inoculants

NATIVES & WILDFLOWERS

- Native grasses
- Conservation seed mixes
- Wildflowers/forbs
- Custom conservation seed mixes
- » (NRCS, CRP, Pollinator)

WILDLIFE

- Food plot seed
- Food plot mixes
- Custom wildlife mixes

FIND YOUR REGIONAL SALES MANAGER FOR A FULL LIST OF ALFALFA, FORAGE AND OTHER PRODUCT OPTIONS AVAILABLE FROM LA CROSSE SEED.



MAGNUM



MAGNUM 8

- Continues the Magnum tradition of establishment vigor, high yield potential, forage quality and persistence
- Tall, showy, eye-catching variety with a dense canopy of dark green leaves
- Average green-up rate following harvest
- Strong aphid resistance and disease package including Aphanomyces

Agronomics

Forage rating:	4
Fall dormancy class	FD 4
Winter hardiness class	2.2
Forage quality	4
Early seedling growth	5
Recovery rate	4

Pest Package

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

MAGNUM



MAGNUM 8/Wet

- Latest release of branch-rooted non-hybrid genetics
- Strong multi-race Aphanomyces resistance package
- Grows very aggressively in the seeding year with great yields
- Excellent yield potential and stand persistence
- Very good establishment in challenging wet conditions
- Outstanding disease resistance rating of 35/35

Agronomics

Forage rating:	4
Fall dormancy class	FD 4
Winter hardiness class	2.5
Forage quality	4
Early seedling growth	5
Recovery rate	4

Pest Package

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

MAGNUM



MAGNUM 7

- A favorite of western commercial hay growers and northeast dairymen
- Great forage quality potential
- Proven management flexibility
- Consistent performance
- Resistance to nematodes

Agronomics

Forage rating:	4
Fall dormancy class	FD 4
Winter hardiness class	1.6
Forage quality	5
Early seedling growth	4
Recovery rate	4

Pest Package

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





AFX 324LH BRAND

Performance

- Features genetic resistance to potato leafhopper injury to improve harvestable yield and forage quality

Management

- Adapted to production acres that annually expect potato leafhopper injury and where chemical control isn't practiced
- Best adapted to three-cut or four-cut harvest or rotational grazing systems
- Performs well in mixtures with cool-season grasses or other legumes

Appearance at Harvest Maturity

- Medium plant height, leafy canopy and medium-green leaves

Agronomics

Yield rating:	2
Fall dormancy class:	FD 3
Winter hardiness class:	WS 2
Multifoliate leaf expression:	Moderate MF

Pest Package

	HR	R	MR	LR	S
Diseases					
Anthracnose	●				
Aphanomyces-Race 1	●				
Bacterial wilt	●				
Fusarium wilt	●				
Phytophthora root rot	●				
Verticillium wilt	●				
Insects					
Potato leafhopper	●				
Blue alfalfa aphid	●				
Pea aphid		●			
Spotted alfalfa aphid	●				



Durastan Brand Alfalfa

- Blend of proprietary alfalfa varieties for fields or situations when “the best” isn't necessary but value is
- Adapted to production geographies where fall dormancy 3 to 5 varieties are recommended
- Appearance will vary depending upon the proprietary components selected

Agronomics

Yield rating:	2
Fall dormancy class:	FD 4
Winter hardiness class:	WS 2
Multifoliate leaf expression:	Moderate MF

Pest Package

	HR	R	MR	LR	S
Diseases					
Anthracnose		●			
Aphanomyces-Race 1		●			
Bacterial wilt	●				
Fusarium wilt		●			
Phytophthora root rot	●				
Verticillium wilt	●				
Insects					
Pea aphid		●			

Pest Resistance Ratings

% Resistant Plants	Resistance Class	Class Abbreviation
0-5%	Susceptible	S
6-14%	Low Resistance	LR
15-30%	Moderate Resistance	MR
31-50%	Resistant	R
>50%	High Resistance	HR

Agronomic Ratings

are based on average performance between Alforex varieties. Unless stated, ratings are based on standardized testing procedures endorsed by the North American Alfalfa Improvement Conference.

StandFast FastGrowth ratings are calculated by Alforex Seeds from weekly measurement of varieties grown side-by-side from green-up to harvest through the growing season. Expressed as average centimeters growth per day.

>2.20 = Very Fast
>2.00 = Fast
>1.80 = Average
>1.60 = Slow
<1.60 = Very Slow

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



Yield Ratings:

Based on performance between Alforex Seeds varieties







5 = Best 3 = Average 1 = Poor

Featured Forage First® Clover & Grasses

RED CARPET® XL Red Clover		<ul style="list-style-type: none"> • Best utilized for silage or spring hay • Increased disease resistance to southern anthracnose & downy mildew 	<ul style="list-style-type: none"> • May produce 3 cuttings on second-year stands • Works well in rotational grazing programs
ECHELON Orchardgrass		<ul style="list-style-type: none"> • Extremely late maturing, maintains forage quality longer between harvests • Superior leaf disease resistance 	<ul style="list-style-type: none"> • Perfect companion for alfalfa or clover mixes • Excellent persistence & vigor • Increased palatability & stand persistence
STARGRAZER XL Tall Fescue		<ul style="list-style-type: none"> • Well adapted for the Midwest, Mid-Atlantic & Northeast • Suitable for both pastures or hay production 	<ul style="list-style-type: none"> • Slightly earlier maturing than KY31 • Good yielder with excellent persistence
TOP TIM XL Timothy		<ul style="list-style-type: none"> • Early maturity blend • Excellent with clover or alfalfa for hay or pasture 	<ul style="list-style-type: none"> • 1 - 2 weeks earlier to boot stage than Climax in most environments

XL Brand

Featured Forage First® Grass Mixes

SEEDING RATE (LBS/ACRE)	SEEDING RATE (LBS/ACRE)
<p>VERSAGRASS™ MIX 25 - 30</p> <p>Excellent for waterways, terraces, ditches, banks & headlands. Great for permanent pastures and companion crop for hay production.</p> <div style="display: flex; align-items: center;">  <ul style="list-style-type: none"> 25% Big Ton XL Smooth Bromegrass 25% Endo-Graze XL Perennial Ryegrass 25% Haymate XL Orchardgrass 25% Top Tim XL Timothy </div>	<p>GRASS MASTER MIX 30 - 40</p> <p>Endophyte-free, tall fescue & orchardgrass perform well in less-than-ideal summers. Good for grazing & hay production.</p> <div style="display: flex; align-items: center;">  <ul style="list-style-type: none"> 35% Stargrazer XL Tall Fescue 35% Haymate XL Orchardgrass 15% Endo-Graze XL Perennial Ryegrass 15% Fusion XL Festulolium </div>
<p>BLM #4 MIX 30 - 40</p> <p>Versatile mix, establishes quickly. Endophyte-free tall fescue extends productivity into hot, dry summer.</p> <div style="display: flex; align-items: center;">  <ul style="list-style-type: none"> 30% Endo-Graze XL Perennial Ryegrass 20% Tetrabana XL Italian Ryegrass 20% Stargrazer XL Tall Fescue 15% Balin/Ginger Kentucky Bluegrass 15% Top Tim XL Timothy </div>	<p>MARE & FOAL MIX 30 - 40</p> <p>Ability to be productive under rotational grazing & hay production. Tolerant to heavy traffic.</p> <div style="display: flex; align-items: center;">  <ul style="list-style-type: none"> 50% Haymate XL Orchardgrass 25% Top Tim XL Timothy 15% Fusion XL Festulolium 10% Balin/Ginger Kentucky Bluegrass </div>
<p>FESCUE BASED MIX 30 - 40</p> <p>Endophyte-free, fescue based pairs well with dairy quality alfalfa, or can be straight seeded for heifers.</p> <div style="display: flex; align-items: center;">  <ul style="list-style-type: none"> 40% Stargrazer XL Tall Fescue 30% Meadow Fescue 20% Fusion XL Festulolium 10% Endo-Graze XL Perennial Ryegrass </div>	<p>SEE YOUR REGIONAL SALES MANAGER FOR LIST OF ADDITIONAL ALFALFA AND FORAGE OPTIONS.</p> 





SOIL FIRST® 101 COVER STARTER

Simple. Practical. A low-risk option for early adopters and growers looking for flexibility.

- For multiple regions & marginal soil environments
- Winter-hardy rye will sequester excess nitrogen

SEEDING RATE (LBS/ACRE) Drill: 30 - 35 **Broadcast:** 35 - 40 **Aerial:** 30 - 40 **Forage:** 40 - 50



SOIL FIRST® 102 COVER STARTER +

Building nitrogen and root mass while improving soil tilth and biomass potential.

- Perfect before both corn or soybeans
- Ideal for Southern Corn Belt & beyond

SEEDING RATE (LBS/ACRE) Drill: 30 - 35 **Broadcast:** 35 - 40 **Aerial:** 30 - 40 **Forage:** 40 - 50



SOIL FIRST® 121 BRASSICA BOOST

Pairing with other species is great for forage or grazing and providing high biomass potential

- Perfect supplement for cereal grains like rye & oats
- Will scavenge for excess nutrients left in the soil

SEEDING RATE (LBS/ACRE) Drill: 6 - 8 **Broadcast:** 8 - 10 **Aerial:** 10 - 15 **Supplemental:** 2 - 4



SOIL FIRST® 125 N-HANCER

Heavy legume mix intended for adding Nitrogen.

- Strong nitrogen fixing mix
- Ideal as fall forage mix

SEEDING RATE (LBS/ACRE) Drill: 35 - 40 **Broadcast:** 40 - 50 **Aerial:** NR **Forage:** 40 - 50

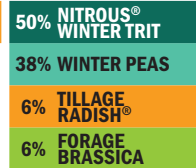


SOIL FIRST® 140 MULTI-PURPOSE

For livestock grazers providing soil protection & biomass from fall through spring.

- Early seeding/late fall silage opportunity
- Ideal forage for beef/non-lactating dairy

SEEDING RATE (LBS/ACRE) Drill: 35 - 40 **Broadcast:** 40 - 50 **Aerial:** NR **Forage:** 40 - 50



SOIL FIRST® 142 CLASSIC - NEW FORMULA

For early planting windows - double-crop, prevent plant, interseeding.

- Ideal for acres going to corn or other grass crops
- Plant early to maximize production

SEEDING RATE (LBS/ACRE) Drill: 12 - 15 **Broadcast:** 15 - 20 **Aerial:** 20 - 25 **Forage:** 15 - 20



SOIL FIRST® 150 FIELD FIT

Straightforward & flexible mix with very minimal spring management.

- Winterkills in most northern climates
- Great for sequestering leftover nutrients

SEEDING RATE (LBS/ACRE) Drill: 30 - 35 **Broadcast:** 35 - 40 **Aerial:** 30 - 40 **Forage:** 40 - 50



SOIL FIRST® 160 ROOTING

Blend of radish & ryegrass maximizes root mass and captures nutrients.

- Best for breaking up compaction & catching nutrients
- Perfect in manure systems

SEEDING RATE (LBS/ACRE) Drill: 15 - 20 **Broadcast:** 20 - 25 **Aerial:** 20 - 25 **Forage:** 20 - 25

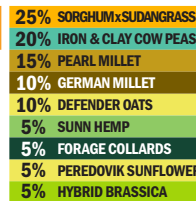


SOIL FIRST® 167 SUMMER BIOMASS

Base of 50% warm-season annual grasses is optimized for biomass & is uniquely suited for grazing.

- Tolerates poor soil, low pH, & drought environments
- Species diversity helps soil aggregate stability

SEEDING RATE (LBS/ACRE) Drill: 15 - 20 **Broadcast:** 20 - 25 **Aerial:** NR **Forage:** 25 - 30

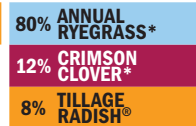


SOIL FIRST® 175 ACCUSPREAD

Coated clover and ryegrass creates spread patterns and broadcast germination.

- Great compaction alleviation & nutrient scavenging
- Facilitates more accurate broadcast seeding patterns

SEEDING RATE (LBS/ACRE) Drill: 20 - 25 **Broadcast:** 25 - 30 **Aerial:** 25 - 30 **Forage:** 25 - 30



*COATED

SUMMER SELECT™ SUMMER ANNUALS

MULTI-CUT SPECIES

			MATURITY	APPROX. SEEDS PER POUND*	DRYLAND SEEDING LBS/ACRE	IRRIGATION/HI-RAIN SEEDING LBS/ACRE	RECOVERY AFTER CUTTING	LEAF DISEASE RESISTANCE	SUGARCANE APHID TOLERANCE	SINGLE SILAGE CUT SUITABILITY	RAPID DRY DOWN
SORGHUM X SUDANGRASS	QUICKDRY BMR T/TS		MED LATE	14,000 - 15,000	20 - 25	35 - 50	4	4	3	2	3
	DENSE TONNAGE BMR BD T		MED LATE	14,000 - 15,000	15 - 25	25 - 35	4	4	1	4	2
	EVERGROW BMR PPS T		LATE	14,000 - 15,000	20 - 25	35 - 50	3	5	2	3	2
	GREENSUGAR TR T		MED	16,000 - 20,000	20 - 25	50 - 60	3	3	2	2	2
	GREENSUGAR MS T		MED LATE	16,000 - 20,000	20 - 25	50 - 60	3	4	1	2	2
SUDANGRASS	BALEMORE		EARLY MED	35,000 - 40,000	15 - 25	20 - 35	3	3	1	2	4
PEARL MILLET	HERCULES BMR BD T		MED	50,000 - 60,000	10 - 12	15 - 20	5	5	5	4	4
	PERFORM T		MED	50,000 - 60,000	10 - 12	15 - 20	5	4	5	4	4
TEFF GRASS	REPRIEVE XL		NA	650,000	8 - 10	8 - 10	4	3	5	NA	4

SINGLE-CUT SPECIES

				DAYS TO HARVEST (SOFT DOUGH STAGE)	APPROX. HARVEST HEIGHT (FT)	APPROX. SEEDS PER POUND*	SEEDING 30" ROWS (LBS)	SEEDING NARROW (LBS)	RECOVERY AFTER CUTTING	STANDABILITY	SUGARCANE APHID TOLERANCE	DOUBLE CROP	OVERALL ADAPTABILITY
FORAGE SORGHUM	94 MS TS		MS	6 - 8	17,000 - 19,000	4 - 6	10 - 15	3	4	2	3	3	4
	95 BMR TS		85 - 95	5 - 7	16,000 - 18,000	5 - 7	NR	2	4	3	3	3	5
GRAIN SORGHUM	79 B TS	OPEN PANICLE TYPE 	MID-BLOOM (DAYS) 48 - 51	GRAIN MATURITY (DAYS) 80 - 85	APPROX. HEIGHT (IN) 36 - 42	13,000	25,000 - 40,000	60,000 - 75,000	5	4	4	5	2
	94 R TS	SEMI-CLOSED PANICLE TYPE 	68 - 71	110 - 115	50 - 56	16,000	25,000 - 40,000	60,000 - 75,000	5	4	5	4	3

	MILLET	PRIMARY FORAGE USE	PLANTING DATE	SEEDING RATE (LBS, BROADCAST - ADD 30%)	DAYS TO GRAIN MATURITY
FOXTAIL	Common Foxtail Millet	Hay or silage	May - July	20 - 25	60 - 100
	German Millet	Dry hay in 55 - 60 days	May - July	20 - 25	75 - 90
	Siberian Millet	Dry hay in 40 - 50 days	May - July	20 - 25	60 - 80
	White Wonder Millet	Dry hay in 50 - 55 days	May - July	20	70 - 90
	White Proso Millet	NR	May - July	20 - 25	70 - 90
GRAZING	Japanese Millet	Grazing; dry hay in 45 - 50 days	April - July	15 - 20	60 - 70
	Pearl Millet	Grazing in 35 - 40 days; dry hay in 40-50 days; can ensile or green-chop also	May - July	12 - 20	60 - 70
	Brown Top Millet	Thin stems make dry hay more suitable	May - July	20 - 25	60

BD = Brachytic Dwarf, **BMR** = Brown Mid-Rib, **MS** = Male Sterile, **PPS** = Photo Period Sensitive, **T** = Base Treatment, **TS** = Base Treatment/Safened

Unless otherwise indicated, a standard 5 point rating system is used. Ratings are based on comparison with other products of like maturity/product use.

1 = POOR, 5 = EXCELLENT

- Widely adapted
- Traditional growth habit with wide, long leaves
- Increased sugar content = improved digestibility
- Fast establishment & regrowth = more productivity
- Management friendly hybrid with greater harvest flexibility
- Dwarf hybrid = improved standability & higher leaf:stem ratio
- Suitable for grazing environments or 1-cut silage systems
- Increased sugar content = improved digestibility
- Widely adapted with improved disease resistance
- PPS hybrids remain vegetative until mid-Sept (day length < 12h, 20m)
- PPS allows for wider window of harvest
- Build tonnage without sacrificing quality
- Broad adaptation in a traditional, non-BMR package
- High yielding; increase population for improved quality
- Higher levels of sugar/protein in vegetative portion of plant
- Increased disease resistance
- MS = no anthers, thus no pollen for self-fertilization
- Improved standability
- Best summer annual option when dry hay production is planned
- Can also be used for grazing or green chop
- Strong emergence & quick regrowth
- Versatile hybrid suitable for silage, grazing & dry hay
- Dwarf gene increases leaf:stem ratio & improves standability
- Enhanced palatability, digestibility & overall utilization
- No prussic acid or sugarcane aphid concerns
- Versatile hybrid suitable for silage, grazing & dry hay
- Quicker regrowth compared to sorghum x sudangrass
- No prussic acid or sugarcane aphid concerns
- Shorter stature = improved standability
- Great rotational crop between alfalfa & perennial stands
- Superior quality - ideal for horses & other livestock
- Well adapted to dry climates

YIELD FOR MATURITY
LEAF/DISEASE RESISTANCE

- | | | |
|---------------------------------|--|---|
| <p>4</p> <p>3</p> | <ul style="list-style-type: none"> • Good disease resistance • Excellent regrowth for a forage sorghum | <ul style="list-style-type: none"> • Male Sterile = increased sugar accumulation |
| <p>5</p> <p>5</p> | <ul style="list-style-type: none"> • Early maturing dwarf BMR • High grain yield for maturity | <ul style="list-style-type: none"> • Excellent leaf disease resistance • Widely adapted with excellent standability |

HEAD SMUT TOLERANCE
FUSARIUM TOLERANCE
MAIZE DWARF MOSAIC TOLERANCE
DOWNY MILDEW TOLERANCE

- | | | |
|---|---|--|
| <p>3</p> <p>4</p> <p>4</p> <p>3</p> | <ul style="list-style-type: none"> • Widely adapted - can go anywhere! • Ultra early hybrid | <ul style="list-style-type: none"> • Exceptional drought tolerance |
| <p>5</p> <p>4</p> <p>5</p> <p>5</p> | <ul style="list-style-type: none"> • Widely adapted hybrid that yields • Medium maturity | <ul style="list-style-type: none"> • Excellent sugarcane aphid tolerance & disease resistance |

*Refer to seeds per lb on seed tag

TYPICAL HEIGHT & STATURE	REGROWTH AFTER CUTTING/HARVEST	ATTRIBUTES
2 - 4'	Little to no regrowth	<ul style="list-style-type: none"> • Forage type millets primarily • Many so called "varieties"
2 - 4'	Little regrowth	<ul style="list-style-type: none"> • Pasture only before heads form (not ideal)
2 - 2½'	Little to no regrowth	<ul style="list-style-type: none"> • VERY fast growing • Used primarily for hay production; seeds for wildlife
3 - 4'	Poor at best	<ul style="list-style-type: none"> • Mid-late maturing • Shallow rooted - not as drought tolerant • Shorter stature • Best suited in Northern Plains • Heavy stem & taller than most foxtail types
2 - 2½'	Poor at best	<ul style="list-style-type: none"> • Dual purpose - hay & grain • Late maturing
2 - 4'	Leave 6 - 8" for adequate regrowth	<ul style="list-style-type: none"> • Usually grown for seed - bird seed or livestock feed • Not tolerant of drought - keep off sandy soils
3 - 6' (depending on variety)	Leave 8 - 10" for quickest regrowth	<ul style="list-style-type: none"> • Grazing / hay potential on wet soils (no prussic acid) • Ideal for waterfowl / wildlife feed • Tolerant of waterlogged soils & flooding • Also used for erosion control
2 - 4'	Leave 6 - 8" for adequate regrowth	<ul style="list-style-type: none"> • Very resilient - handles a variety of soil types • No prussic acid concerns • More drought tolerant than Japanese / foxtail millets • Increased forage quality offered in BMR types
		<ul style="list-style-type: none"> • Fast growing for seed mostly - wildlife • Seed shatters easily - reseed potential very high • Best suited for Southeast US (needs adequate water) • Tolerant of acidic soils & low fertility



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Alforex Supports the U.S. Alfalfa Farmer Research Initiative managed by the National Alfalfa and Forage Alliance (NAFA). The goal of the initiative is to raise funds via a checkoff to invest in public research for alfalfa and alfalfa systems. The purchase of Alforex alfalfa contributes \$1.50 from each bag of seed to the U.S. Alfalfa Farmer Research Initiative for public research.

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