

DLF Forages

Grasshancer™ Product Guide



SEED YOUR EXPECTATIONS



GRASSHANCE®

[gras-hans]

(verb)

1. enhancing with grass. *Grasshance your forage production.*

Origin of Grasshance®

Improving forage production by introducing improved DLF grass varieties to an existing forage crop or by mixing DLF grass seed with non-grass forage crop seed in new plantings.

The methods to Grasshance thinned-out stands of forage crops can be seen as rescue measures, but also as maintenance procedures to maintain maximum yield from your forage crops and, in doing so, stretch the economical life of the stand:

- Interseeding - planting a different species into an existing stand. *You can Grasshance your alfalfa by interseeding DLF festulolium to increase production and maintaining quality.*
- Overseeding - planting new and improved DLF varieties of grass into an existing stand of grass

GRASSHANCER™

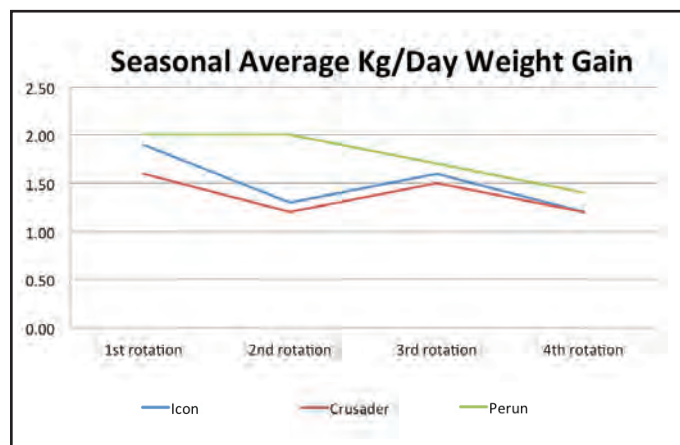
[gras-han-ser]

(noun)

1. true innovative DLF products that will improve your forage production. *I improved my forage production by using Grasshancer.*

Grasshancer FL

Festulolium makes Grasshancer a true innovative product. DLF Festulolium varieties used in the Grasshancer FL products have a significant advantage over straight ryegrasses. The influence of the [meadow] fescue parent offers increased persistency and summer performance. In addition, the high NDFd trait of meadow fescue is carried into these DLF Festulolium varieties. The result is higher animal performance per ton dry matter consumed compared to straight ryegrass, whether that is milk production or weight gain. This was evidenced in a grazing trial with diploid Italian Ryegrass (Crusader, Icon) vs DLF festulolium Perun. Animal weight gain when grazing festulolium Perun was 123% of weight gain when grazing the Italian ryegrass.



Source: Penfield Research Station (company Seed Distributors- Pasture Genetics) in Australia

DLF Festulolium varieties have the same quick germination and establishment qualities of short term ryegrass. It is very competitive with the existing stands and will establish in all areas where the original stand is thinned out.

The high forage production, high forage quality, fast establishment and persistency of the DLF Festulolium varieties, make Grasshancer FL the ideal product for “grasshancing” pastures or alfalfa.



GRASSHANCER SHORT AND MEDIUM TERM GRASS



Our short and medium term Grasshancer products are specially formulated to excel in interseeding and overseeding conditions. They can also be used for new seeding of short or medium term grassland. These Grasshancer products are fast germinating and have a quick establishment. That makes them compete well with the existing alfalfa or grass stand. The Grasshancer 200 and 300 series are based on DLF Festulolium-4n varieties; the best varieties to combine fast establishment, high yield and high feed value. The Grasshancer 400 series is based on DLF's tetraploid perennial ryegrasses.



Grasshancer 100

A combination of our best tetraploid and diploid annual ryegrass to ensure a long period of high quality and high yielding winter forage. For use in Southern winter forage production.



Grasshancer 200FL

A short term grass mixture, based on DLF Festulolium varieties with a 2 year persistence, plus tetraploid Italian ryegrass. Its maturity makes it ideal for grasshancing alfalfa when having a late first cut as in a 3-cut system. The grass will be at its highest quality when alfalfa cutting gets underway.

Grasshancer 200FL is perfect when only one or two year extended production is desired from an alfalfa field or pasture, or when a short rotation overseeding program is implemented. Its rapid establishment and high production will boost the dry matter yield of thinned out fields.

Grasshancer 200FL can also be used as new seeding for high producing, high forage quality, short rotation pasture or hay field.



Grasshancer 200FLC

Same as 200FL, but with red clover added.



Grasshancer 300FL

A medium term grass mixture, based on DLF Festulolium varieties with a 3 to 4 year persistency. Ideal for maintaining pastures and hay fields with high dry matter production and high feed quality. Its rapid establishment and high production will boost the dry matter yield of thinned out fields. Slightly earlier maturing than Grasshancer 200 makes it very suitable for grasshancing alfalfa in a 4-cut system. The grass will be at its highest quality when alfalfa cutting gets underway.

Grasshancer 300FL can also be used as new seeding for high producing, high forage quality medium rotation pasture or hay field, or as long term pasture with an overseeding program.



Grasshancer 300FLC

Same as 300FL, but with red and white clover added.



Grasshancer 400

Based on late maturing DLF tetraploid perennial ryegrasses. Useful when overseeding will not occur frequently or when overseeding an existing perennial ryegrass stand to maintain its late maturity. Also very suited to establish new medium term pastures, focused on grazing management. Due to the late maturity of perennial ryegrass in general, Grasshancer 400 is not recommended for interseeding alfalfa.





GRASSHANCER LONG TERM GRASS



When grass is planted with the intent to create a long term pasture or hay field, the more persistent species are required. DLF has created Grasshancer products for Long Term stands that are based on specific, persistent DLF varieties of these species, complemented with DLF varieties of other species to offer a balanced mixture for the desired purpose. These long term Grasshancer products will provide a very persistent stand, good for many years. To maintain dry matter production the stands will benefit from an overseeding management regime with the Short Term Grasshancer products, starting 3-5 years after the initial establishment. Long Term Grasshancer products can be combined with new alfalfa seeding, to develop a mixed grass-alfalfa stand, suitable for hay production as well as grazing.



Grasshancer 400 Series Perennial Ryegrass Based

Perennial ryegrass can be used for long term grass stands in the cooler, milder climates. Typically used when high forage quality and high animal intake are needed for optimum performance. Examples include grazing dairy cows or young stock. Perennial ryegrass offers the fastest establishment of long term perennial grasses. Grasshancer 400 may include combinations of tetraploids and/or diploids. Uses include grazing, green chop, silage and baleage. Earlier maturity may be used when late winter or early spring growth is needed. Later maturity may be used to increase forage quality later in the season, or to optimize summer performance.

Cooler summer temperatures, high fertility and soil moisture are needed for stand longevity.



Grasshancer 600FL Series Festulolium-6n Based

Festulolium-6n combines high forage quality and palatability of ryegrass with the DM yield and persistence of tall fescue. Grasshancer 600FL may be used in a high percentage grass mixture that includes legumes or added to alfalfa.

Compatible with alfalfa, select maturity based on cutting regime: early maturity for a 5-cut regime, late maturity for 4- or 3-cut regime. Festulolium-6n is always endophyte free.



Grasshancer 700 Series Orchard Grass Based

Often the primary grass component for horse or dairy hay, either as a straight grass or in combination with legumes. Compatible with alfalfa, select maturity based on cutting regime: Early maturity for a 5-cut regime, medium maturity for a 4-cut regime and late maturity for a 3-cut regime. Orchard grass can be seeded with alfalfa at initial

stand establishment or can be seeded into a thinning alfalfa stand to extend the productive life of a stand. Uses include grazing, silage, baleage, and dry hay.

Grasshancer 700 can be used to interseed into K-31 fescue pastures to reduce fescue toxicosis.

Early maturity initiates growth earlier when moisture is available, while later maturity maintains forage quality in late season.



Grasshancer 800 Series Tall Fescue Based

Often the primary grass component in beef pastures or in dairy TMRs. Typically the choice when DM yield and fiber digestibility needs to be optimized. Also best choice for late season growth and stock piling. Deep root system aids production in droughty conditions.

Grasshancer 800 matches well with alfalfa. Select maturity based on cutting regime: early maturity for a 5-cut regime, medium maturity for a 4-cut regime and late maturity for a 3-cut regime.

For grazing consider including soft leaf and/or high sugar genetics to increase palatability. Uses include grazing, silage, baleage, dry hay, and stock piled forage. Grasshancer 800 is always endophyte free.



Grasshancer 900 Series Timothy Based

Timothy is very winter hardy and has high animal acceptance. Popular in equine mixes and northern climates. Adapted to poorly drained, and/or late warming soils, where grass growth develops later in the season. Early maturing Timothy is compatible with alfalfa, but mainly in a 3-cut or less regime. Timothy is poorly adapted to short rotation management. Uses include grazing, silage and dry hay.



GRASSHANCER FROST SEEDING FORMULA



Frost seeding is an excellent method to “Grasshance”. It is quick, leaves no tracks or compaction from your equipment in the field and the seed is there when the conditions for germination finally arrive. That may be well before you are able to drive onto the field to use a drill or slit seeder to plant the seed and thus creating a significant head start. For clovers this has been the common and successful way of overseeding. DLF has formulated Grasshancer mixtures to allow the grass to be frost seeded. The Frost Seeding Formula consists of a seed coating with fungicide on the grass seed and when added, coated and inoculated red and white clover in the proper ratios to produce a balanced stand.

The coating will improve the ballistic properties of the grass seed, to allow for application with a fertilizer spreader. In addition, the coating will improve seed – soil contact, important when the seed is just dropped on top of the soil. The fungicide protects the seed and seedling during the prolonged period of germination and establishment.

The coating on the clover is added to avoid separation from the grass seed in the seeder and to deliver and protect the inoculation with rhizobia bacteria. *See chart on page 7.*

Frost seeding is best done towards the end of winter.



Grasshancer 200FL 
Frost Seeding Formula



Grasshancer 200FLC 
Frost Seeding Formula



Grasshancer 300FL 
Frost Seeding Formula



Grasshancer 300FLC 
Frost Seeding Formula



N-hancer 
Frost Seeding Formula

A balanced mixture of red and white clover, coated and inoculated



GRASSHANCER COVER CROP GRASSES



Grasshancer 100W 
Cold Tolerant

A blend of our cold tolerant annual ryegrasses. The varieties in this blend have been selected to withstand open winters where regular annual ryegrass would not survive. It has pushed the opportunity to fall seed annual ryegrass further north. It offers a cost effective alternative to more perennial type grasses when only a spring cut is required in advance of a spring row crop or summer annual forage. Grasshancer 100W is widely used for cover crop applications in corn.





Grasshancing K-31 PASTURES

Grasshancer 300FL and 300FLC are excellent tools to manage K-31 pastures and to mitigate the fescue toxicosis of the endophyte infected K-31. The dry matter boost from the Grasshancer dilutes the K-31 to a level where livestock will be less affected. The maturity of Grasshancer 300FL is later than K-31. When cutting or grazing is based on the K-31 development, Grasshancer 300FL will be at its optimum forage quality level.

Grasshancer 300FL Festulolium varieties are more persistent and will produce longer into the summer than straight ryegrasses.

An overseeding program with a recurring application of Grasshancer 300FL once every two or three years can:

- significantly reduce fescue toxicosis, boosting animal health
- increase dry matter yield
- increase forage quality, resulting in more animal weight gain/acre

For spring applications, when mixed with fertilizer, it is recommended to use the Grasshancer Frost Seeding Formula products. The Frost Seeding Formula greatly improves even spreading of the seed and ensures good seed-soil contact.

Grasshancing PERMANENT PASTURES

Research in UK and Belgium has shown that grassland renewal through grasshancing can increase dry matter production with 16%. Studies in the US have confirmed dry matter yield increase from overseeding. This translates in significant per acre gain in milk or weight. If implemented as a management tool, grasshancing with Short Term Grasshancer FL products once every two or three years maintains a high producing pasture for many years.

Grasshancing ALFALFA

Alfalfa is generally recommended for three production years and then rotated out. Varieties are bred to maximize the dry matter production over those three years. Many fields stay in production much longer and suffer a decline in dry matter production as the stand ages; plants become less productive and the stand thins out. This encourages an invasion of weeds, reducing the forage quality. The answer to this is: Grasshance! Using the Short Term Grasshancer FL products, dry matter production is greatly increased, weeds are suppressed and forage quality is maintained. Grasshancing is a very cost effective way to maintain high forage production and extend life of alfalfa stands.





GRASSHANCER SEEDING RATES



Grasshancer Recommended Seeding Rates (lbs/acre)

	Field Condition				
Product	Open Ground/New Seeding	New Seeding With Alfalfa	Mixed Pasture	K-31 Tall Fescue Pasture	Alfalfa Stand
Grasshancer 100	25 to 35	NR	25 to 35	NR	NR
Grasshancer 100W	25 to 35	NR	NR	NR	NR
Grasshancer 200FL	25 to 35	5 *	25 to 35	25 to 35	25 to 35
Grasshancer 200FLC	25 to 35	NR	25 to 35	25 to 35	25 to 35
Grasshancer 300FL	25 to 35	5 *	25 to 35	25 to 35	25 to 35
Grasshancer 300FLC	25 to 35	NR	25 to 35	25 to 35	25 to 35
Grasshancer 200FL Frost Seeding Formula	40	NR	40	40	40
Grasshancer 200FLC Frost Seeding Formula	45	NR	45	45	45
Grasshancer 300FL Frost Seeding Formula	40	NR	40	40	40
Grasshancer 300FLC Frost Seeding Formula	45	NR	45	45	45
N-hancer Frost Seeding Formula	NR	NR	10	10	10
Grasshancer 400	30 to 40	NR	25 to 35	N/A	N/A
Grasshancer 600FL	20 to 30	6 to 12	NR	NR	5 to 10
Grasshancer 700	20 to 30	4 to 10	NR	NR	5 to 10
Grasshancer 800	15 to 25	6 to 12	NR	15 to 25	5 to 10
Grasshancer 900	10 to 15	2 to 3	NR	NR	NR

When broadcasting, use the higher rate.

* nurse crop

NR = not recommended



DLF RESEARCH STATION Philomath, OR



DLF RESEARCH STATION Lindsay, Ontario



DLF PICKSEED HEADQUARTERS Halsey, OR



DLF RESEARCH STATION Boyd, KY

