

4TURF

Extra power

 **DLF**
TRIFOLIUM
SEEDS & SCIENCE



4turf
by DLF-TRIFOLIUM

4TURF

FACTS

- Rapid installation
- Increased stress tolerance (drought, cold)
- Excellent disease resistance
- Good wear tolerance
- Glossy dark green color
- Faster a green area
- Excellent survival in extensive management
- Excellent recovery from drought and heat stress
- Excellent winter behaviour
- Less weed pressure
- Excellent mixture partner

**What is 4TURF?**

4TURF is a new turf type of tetraploid perennial ryegrass bred especially for rapid installation and unique stress tolerance.

Tetraploid ryegrasses have long been known to show better stress tolerance and disease tolerance compared to diploids. Now these advantages have become available for turf grasses as 4TURF.

Better sward quality after stress

In southern and continental areas in Europe 4TURF shows better recovery from both drought and heat stress as well as winter stress.

Thus it outperforms ordinary diploid ryegrasses.

DROUGHT TOLERANCE

VARIETY	LES ALLEUDS	CARPENTRAS
Diploid Lp (mean of 3 varieties)	100	
Diploid Lp (mean of 6 varieties)		100
4TURF (mean of 3 varieties)	133	119

Scores for drought tolerance in Les Alleuds (Loire region) and Carpentras (South of France)

BETTER SWARD QUALITY AFTER WINTER STRESS

COUNTRY	4TURF VARIETY	FUSARIUM	RANK	RED THREAD	RANK	WINTER GREENNESS	RANK
NL	Tetragreen	8.3	4 out of 46	7.8	1 out of 46	8.0	1 out of 46
UK	Tetragreen			8.6	3 out of 101		
UK	Double			9.2	1 out of 101		

4TURF is healthier in winter times. After winter it is outperforming diploid ryegrasses (Source: official trials in the Netherlands (sport, sown in 2006, table 1 and 2) and UK (lawn, sown in 2007, table 5,10). (Score: 1=poor, 10=best)

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BENEFITS OF 4TURF

Better sward quality after summer stress

Better sward quality after winter stress

Reduced fertiliser and chemical input costs

Reduced labour costs

Rapid installation

4TURF seeds are 1.5 times bigger than normal turf grasses. It produces stronger seedlings with faster establishment, resulting in less chances for the establishment of weeds. Thus 4TURF is the perfect overseeding choice for perennial ryegrass applications.

4TURF is very well suited for overseeding Bermuda in the transition zone resulting in a fast establishment and excellent turf quality but no more clippings.

Better disease resistance and stress tolerances

4TURF has an improved disease resistance, both under warm and cold conditions. In DLF-trials from Scandinavia to the Mediterranean it has proven to be more resistant against f.e. rust, Fusarium, Helminthosporium, Drechslera, and red thread. It is very well suited for extensive management conditions.

Good wear tolerance

In Germany 4TURF varieties Double and Tetragreen are rated 8 for sport/wear conditions (Strapazierrasen) at a 1 - 9 score. The shear strength will improve due to a deeper root system.

Excellent mixture partner

4TURF is slightly less dense compared to normal diploid turf ryegrasses. As a result its companion species in mixtures have better chances for establishment. When combined with smooth-stalked meadowgrass, the latter will have better chances to establish at a higher level. When combined with tall fescue the larger leaves of 4TURF result in a more homogeneous aspect of the turf. When combined with an elite diploid perennial ryegrass, the result will be a dense sward, combining the best of both worlds. When 4TURF is used for overseeding Bermuda, the slightly more open structure compared to diploids, results in a faster re-growth of the Bermuda after dormancy.

LOWER COSTS AND LESS ENVIRONMENTAL IMPACT

GROWTH HABIT	COLOUR	ESTABLISHMENT RATE (LOW TEMP)	ESTABLISHMENT RATE (HIGH TEMP)	WEAR TOLERANCE	THATCH PRODUCTION	COMPONENT MIX	SHADE TOLERANCE	COLD TOLERANCE	DROUGHT TOLERANCE	ET RATE (MM/DAY)	SALINITY TOLERANCE (MS/CM)
Bunch	Dark green	Fast 7-10d	Fast 10-20d	Very Good	None	Fair-Good	Fair-Good	Fair-Good	Good	High 9-10	Good <11



MAINTENANCE OF 4TURF

Seeding rates	To be adapted to local conditions (soil conditions, climate conditions, utilization. etc..)
Seeding date	Best mid August to October, 2nd best February 15 - March 30.
Fertilisation (at sowing)	<ul style="list-style-type: none"> • Normal Seed <ul style="list-style-type: none"> - pre-plant incorporated: 0 - 50 kg N/ha - pre-plant topdressed: 0 - 50 kg N/ha • iSeed: if iSeed is used no starter fertilization is necessary
Fertilisation (season)	NPK, depending on use and climate. Micronutrients depending on soil analysis or plant tissue tests during the year
Mowing	<p>First mowing at plant heights of 5 - 8 cm. Get to the desired mowing height within 4 - 6 weeks. Normal 1.5 - 5 cm, good durability at 3 - 4 cm. Mowing frequency: 1 - 2x per week .</p>



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DLF-TRIFOLIUM focuses closely on the demands of customers as well as on the market trends of clover and grass seed. Offering one of the world's largest research and breeding programmes for both turf and forage, DLF-TRIFOLIUM is working continually to improve the quality and reliability of all varieties. To meet market expectations, these varieties are tested through a worldwide trialling network for adaptation to different climatic and environmental conditions.

DLF-TRIFOLIUM is the world's largest producer and distributor of grass seed. With subsidiaries in Denmark, Sweden, Holland, Belgium, UK, France, Germany, Czech Republic, Russia, China, New Zealand, South America and United States, an extended distributor and customer network serves the markets worldwide.