

Professional Turf SOD

Product Guide




www.icl-sf.com

ICL
Where needs take us



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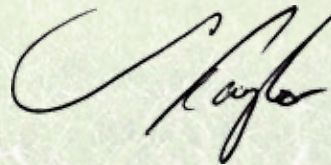
Selecting the correct turf grass varieties: ICL has the perfect solution for you

ICL understands what it takes to grow high quality sod. Starting with the right material makes that task a whole lot easier.

Selecting the correct turf grass varieties to suit local soil type and growing conditions is the key focus for any sod producer.

Not only is the final turf quality important but also the time taken from sowing to lifting of a saleable product.

Whether it is seeds, fertilizers or wetting agents, ICL has a solution for you.



Simon Taylor

Product & Business Development Manager

EMEA Grass Seeds,

ICL-Specialty Fertilizers

Grass seeds Icons System

To achieve an accurate evaluation of a grass variety's performance, independent screening trials are conducted to identify key characteristics. The ICL grass seed icon system highlights varieties that excel. These are blended to create seed mixtures with all-round performance to suit all situations and locations.

What the icons mean:



Wear tolerance

Able to withstand intensive wear with good recovery. Suitable for sports stadia, training grounds and any areas under intensive use.



Cold tolerance

Low temperature germination and growth. Suitable for early and late season conditions where low ground/air temperatures are experienced.



Shade tolerance

Performs well in low light levels. Suitable in stadia, building surrounds or in natural shade created by trees.



Brown Patch

Rhizoctonia (Brown patch) can affect most cool season turf grasses. This icon indicates the varieties and blends with improved resistance.



Visual merit

An overall combination of grass sward quality taking into account year-round colour, shoot density, disease resistance and leaf texture.



Drought tolerance

Tolerance to high temperatures and drought. Suitable for areas with limited water resources or where high temperatures restrict the range of species that can be grown.



Low maintenance

A characteristic that encompasses all aspects of turf management that reduce inputs. This includes reduced clipping yields for less mowing, as well as lower nutritional, water, and disease control requirements.



Salt tolerance

Tolerance of salinity. Suitable for coastal locations with naturally higher salinity and facilities using irrigation drawn from sources with high salinity levels.



Disease tolerance

Higher natural tolerance to the common turf diseases.



Sod (turf) quality

Blends that are free from contamination with other grasses and weeds.



Grass Seed trial sites

UK, Spain, Italy, France,
Netherlands, Slovakia,
Czech Republic, USA

Seed testing Programme

Developing turf grass varieties that perform well is essential to the performance and sustainability of natural turf surfaces. ICL has developed an easy reference system using icons to assist turf managers when choosing the appropriate blends and varieties for their own situations.

Our grass seed evaluation programme offers one of the most diverse varietal portfolios in the professional turf sector, catering for varying climatic conditions and management approaches.

We take a dual approach to variety selection, sourcing the best available from European and American-bred, cool and warm season genetics.

No matter what the demands: wear, heat, salinity, shade or diseases, ICL has the solution. Seed purity and performance are the foundations of integrated turf management programmes.



Grass Seed
trial plots

Den Haan Nursery, Netherlands



Turf seed varieties

Individual varieties from the ICL portfolio are available to meet the specific needs of sod producers.

- ***Agrostis stolonifera* – Creeping bent grass**
New varieties appearing in the ICL range are specifically bred with integrated turf management in mind. The key aim is provide top performance with lower inputs
- ***Agrostis capillaris* – Browntop bent grass**
A more traditional bent grass for golf greens. The new releases are now proving to have lower demands for nutrients and water. Great disease resistance is a real strength of this species
- ***Festuca rubra commutata & trichophylla* – Chewings & Slender creeping red fescue**
A range of fine fescues available, developed for a range of application from low maintenance to intensively managed areas
- ***Festuca arundinacea* – Tall fescue**
A deep rooting, drought tolerant species which forms a very important part of the ICL programme, particularly for southern Europe
- ***Poa pratensis* - Kentucky bluegrass**
ICL can boast in having probably one of the most extensive ranges of Kentucky bluegrass. There are many characteristics on offer from highly aggressive rooting hybrid varieties to high wear tolerance types.
- ***Lolium perenne* – Perennial ryegrass**
One of the most widely used species in the sports turf world. The ICL portfolio includes US and European genetics to cover all manner of applications
- ***Specialist species***
Due to the diverse range of climatic regions we work within, ICL offers certain species that are adapted to difficult growing conditions. These include Paspalum, Zoysia, Bermuda and Hard fescues

Turf Seed Varieties Index

Product	Performance	Golf				Sports				SOD	Page
		Greens	Fairways	Tees	Roughs	Sports stadia	Training grounds	Racecourses	Outfields & Lawns		
Legend <i>Kentucky bluegrass</i>				✓		✓	✓	✓		✓	8
Prosperity <i>Kentucky bluegrass</i>				✓		✓	✓	✓	✓	✓	8
Enigma <i>Kentucky bluegrass</i>				✓		✓	✓	✓	✓	✓	9
SPF-30 Heatmaster <i>Kentucky bluegrass (Hybrid)</i>				✓		✓	✓	✓	✓	✓	9
Torsion <i>Perennial ryegrass</i>			✓	✓		✓	✓	✓	✓	✓	11
Pronto <i>Perennial ryegrass</i>			✓	✓		✓	✓	✓	✓	✓	12
Equate <i>Perennial ryegrass</i>			✓	✓		✓	✓	✓	✓	✓	13
Fastball RGL <i>Perennial ryegrass</i>			✓	✓		✓	✓	✓	✓	✓	13
Groundforce <i>Perennial ryegrass</i>			✓	✓					✓	✓	14
Mistral <i>Perennial ryegrass</i>			✓	✓		✓	✓	✓	✓	✓	15
Grandslam GLD <i>Perennial ryegrass</i>		✓	✓	✓	✓				✓	✓	15
Spyder LS <i>Tall Fescue</i>						✓	✓	✓	✓	✓	16
Avenger <i>Tall Fescue</i>						✓	✓	✓	✓	✓	16
Riptide <i>Creeping bentgrass</i>		✓	✓								17

All straights are subject to availability. Certain ICL cultivars are reserved solely for our blended products and therefore will not appear in this table.

Visit www.icl-sf.com to view our full grass seed portfolio.
Select your local country site to find out more about the seeds varieties and blends appropriate for your region.

Legend

Poa pratensis

Rely on the Legend

Legend is an dark green Kentucky bluegrass variety. Legend has very fine leaf texture and an aggressive nature making it an ideal choice for high-quality turf needs such as golf tees and superior athletic fields.

Legend is also ideal for sod production and low-mow applications where the highest turf-quality is required. In addition Legend has improved disease resistance producing a clean, healthy turf. When only the best will do.



GOLF

SPORTS

SOD

AVG SOWING RATE: 12 g/m²
MOWING HEIGHT: 10 - 50 mm

SEED VARIETIES

- 100% Kentucky bluegrass Legend

Advantages



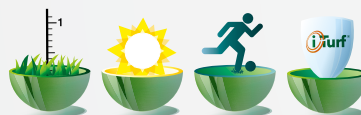
Prosperity

Poa pratensis

Excellent wear tolerance

Prosperity is a Kentucky bluegrass and ideal for sports fields, fairways and tees. It is part of ICL's Low grow, Drought, and Wear tolerance programs.

Prosperity is a fine textured leaf grass that delivers a dense, well balanced and dark green turf. It has a good shade tolerance and performs exceptionally well in warmer climates. Prosperity displays great resistance to diseases; including leaf spot and stripe rust.



GOLF

SPORTS

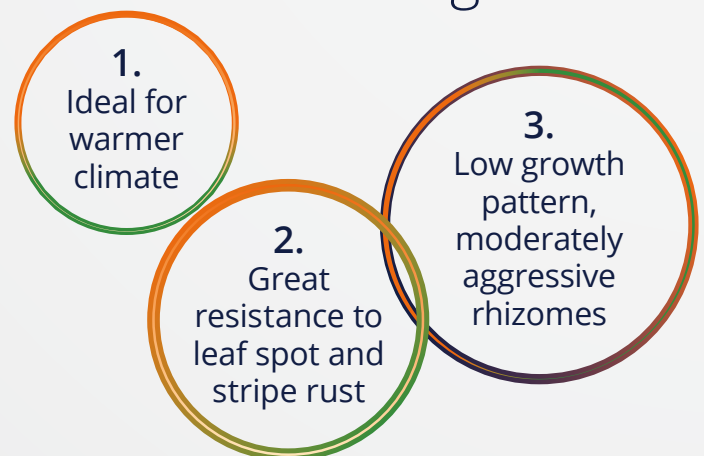
SOD

AVG SOWING RATE: 12,5 g/m²
MOWING HEIGHT: 10 - 35 mm

SEED VARIETIES

- 100% Kentucky bluegrass Prosperity

Advantages



Enigma

Poa pratensis



GOLF SPORTS SOD

AVG SOWING RATE: 12,5 g/m²
MOWING HEIGHT: 12 - 50 mm

SEED VARIETIES

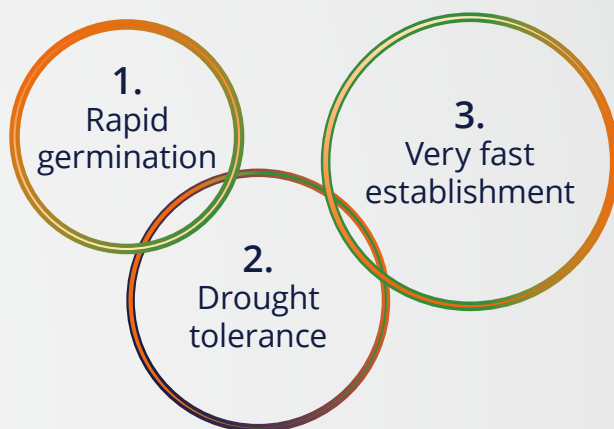
- 100% Kentucky bluegrass
Enigma

For high and low maintenance applications

Enigma is a conventional *Poa pratensis* that gained STRI sport wear listing in 2016.

Enigma is a very fine leaved variety showing consistent all-year round mid green colour. Its excellent tolerance to leaf spot and rust makes it an ideal variety for sports, lawns and as a component of sod mixtures.

Advantages



SPF-30 Heatmaster

Poa pratensis



GOLF SPORTS SOD

AVG SOWING RATE: 12,5 g/m²
MOWING HEIGHT: 12 - 50 mm

SEED VARIETIES

- 100% Kentucky bluegrass
SPF30 Heatmaster

Unrivalled rooting system

SPF-30 Heatmaster is a hybrid Kentucky bluegrass ideal for: sports fields, lawns, recreational turf and sod production. It is part of ICL's Drought, Wear and Shade Icon programs.

Advantages





Outstanding turf

*Considered worthy by
any turf professional*

Torsion

Lolium perenne



GOLF SPORTS SOD
AVG SOWING RATE: 25 g/m²
MOWING HEIGHT: 10 - 40 mm

SEED VARIETIES

- 100% Perennial ryegrass
- Torsion

Turf reinforcement with 'TRT'

Torsion perennial ryegrass offers outstanding turf quality. Mid to dark green in colour, excellent diseases tolerance, a compact lateral spreading growth habit with fine leaves makes Torsion a worthy consideration by any turf professional.



Turf repairing tillers 'TRT' Self-repairing turf

Torsion is characterised by lateral spreading tillers which are formed primarily in spring and early summer after the turf has been vernalized. Unlike conventional Perennial ryegrass, Torsion produces tillers that extend in growth from the main plant and are capable of rooting to ultimately spread and self-repair damaged turf.

Reduced lifting times for sod growers, increased sod strength

Torsion can form an important portion of turfseed blends (see TSP 6535, page 20) Torsion is a small seeded variety which means kilo for kilo, It has a higher seed count

than many other varieties in its class and can be seeded at lower rates to achieve the same plant population. Due to its dense spreading nature, Torsion can improve root density forming greater sod strength, leading to earlier lifting times.



Spreading perennial ryegrass, bottom view

Quality: less clippings means lower maintenance

The results speak for themselves. As listed in the UK STRI Booklet, Torsion demonstrates itself as ideal being ideal for producing high quality sod. The combination of density, fineness of leaf and cleanness of cut provides a high level of all-round quality. The slow regrowth characteristics result in less mowing and fewer clippings.

Applications: Versatility for end users

Torsion offers all-round performance for both sod growers and end user. It performs under closer mown management down to 10mm making it suitable for golf tees and fairways. Equally, Torsion is at home for sporting venues under intensive use where good ground cover needs to be maintained.



Before



After

Divot scar trial demonstrating infill growth of Torsion

Live Tiller count on TRT Perennial Ryegrass grown in Aurora, Oregon

Tillers per 100 cm ²			
Variety	2010	2011	Avg
TRT prg	393	398	395.5
Conventional	164	158	161

New Cultivars 2017	Shoot density	Fineness of leaf	Slow regrowth	Visual merit	Mean	Disease resistance red thread	Cleanness of cut	Winter green	Summer green
Torsion	8.1	7.6	8.6	7.7	8.0	5.0	8.0	6.5	7.9

9 = Highest ranking

Pronto

Lolium perenne



GOLF SPORTS SOD
AVG SOWING RATE: 35 g/m²
MOWING HEIGHT: 15 - 40 mm

SEED VARIETIES

- 100% Perennial ryegrass
Pronto

Outstanding winter hardiness

Pronto is a Perennial ryegrass and ideal for sports fields, golf course fairways and recreational turf. Has great winter tolerance and has a proven track record for overseeding.

Advantages





Equate

Lolium perenne



GOLF SPORTS SOD
AVG SOWING RATE: 35 g/m²
MOWING HEIGHT: 15 - 40 mm

SEED VARIETIES
● 100% Perennial ryegrass
Equate

Very fine leaf texture

Equate is a Perennial ryegrass and ideal for sports fields, golf course fairways and recreational turf. It is part of ICL's Drought and Salt tolerance program.

Advantages



Turf seed varieties

Fastball RGL

Lolium perenne



GOLF SPORTS SOD
AVG SOWING RATE: 35 g/m²
MOWING HEIGHT: 15 - 40 mm

SEED VARIETIES
● 100% Perennial ryegrass
Riptide

Combats Rust and Gray leafspot disease

Fastball RGL (Resistance to Gray Leafspot) is a top-quality Perennial ryegrass ideal for all fine turf needs. It's dark green colour and Fine leaf texture make it an ideal choice for golf applications.

It's excellent seedling vigour and fast establishment are ideal to crowd out weeds and fill in bare spots. These traits combined with improved wear tolerance make it a great choice for interseeding thinning sports fields. It's resistance to pathogens also make it an ideal choice for overseeding dormant warm-season grasses. Fastball RGL leaves the competition swinging.

Advantages



Groundforce

Lolium perenne



GOLF

SPORTS

SOD

AVG SOWING RATE: 32,5 g/m²
MOWING HEIGHT: 12 - 40 mm

SEED VARIETIES

- 100% Perennial ryegrass
Groundforce

Excellent visual appearance

Groundforce is a very attractive brand new Perennial ryegrass from the ICL stable gaining STRI New cultivar list in 2016. The variety combines great all-round performance and features in some of the ProSelect blends for use in golf, sports and general recreation areas.

Advantages

1.
Excellent seedling vigour

2.
Good cleanness of cutting and short growth

3.
High density and good persistency



Mistral

Lolium perenne

All year round performance

Mistral is a new EU registered American genetics Perennial ryegrass with exceptional rankings under the NTEP trials system.

Sporting facilities looking for a variety offering superior Gray leaf spot resistance need not look any further. Mistral is an excellent variety for over-seeding in both cool season and transitional areas, particularly where heat tolerance is a necessity. Excellent seed purity and seedling vigour provide grounds managers the reassurance they are purchasing a top quality product.



GOLF SPORTS SOD

AVG SOWING RATE: 32,5 g/m²
MOWING HEIGHT: 15 - 40 mm

SEED VARIETIES

- 100% Perennial ryegrass
Mistral

Advantages

1.
Excellent
turf
quality

2.
Superior heat
tolerance
and high salt
tolerance

3.
Gray leaf and
snow mold
resistance

Turf seed varieties

Grandslam GLD

Lolium perenne

The winning variety

GrandSlam GLD (Gray Leaf and Drought tolerant) is a high-quality perennial ryegrass bred with resistance to gray leaf spot and improved drought tolerance.

If you struggle in an area affected by Gray Leaf Spot or just want to have the security against it choose GrandSlam GLD. Its dark green colour makes it an ideal choice for use on golf courses, sports fields, home lawns and for professional landscapers. Its drought tolerance and fast establishment also make it a great choice if you require a high-quality overseeding variety.



GOLF SPORTS

AVG SOWING RATE: 32,5 g/m²
MOWING HEIGHT: 10 - 40 mm

SEED VARIETIES

- 100% Perennial ryegrass
Grandslam GLD

Advantages

1.
Excellent
overseeding
quality

2.
Superior
Gray leaf spot
resistance

3.
Drought
tolerance

Spyder LS

Festuca arundinacea

Lateral spreading for dense sod

Spyder LS is a tall fescue that is ideal for: sport fields, recreational turf, golf course roughs, roadsides, airports and erosion control. It is part of ICL's: Low grow, Brown patch resistance, Shade, Wear, and Salt tolerance programs.



SPORTS SOD
AVG SOWING RATE: 40 g/m²
MOWING HEIGHT: 25 - 35 mm

SEED VARIETIES
● 100% Tall fescue
Spyder LS

Advantages



Avenger

Festuca arundinacea

Exemplary seedling vigour, deep rooting

Avenger is a tall fescue that is ideal for: sport fields, recreational turf, golf course roughs, roadsides, airports and erosion control. It is part of ICL's Cold and Drought tolerance programs.



SPORTS SOD
AVG SOWING RATE: 40 g/m²
MOWING HEIGHT: 25 - 35 mm

SEED VARIETIES
● 100% Tall fescue
Avenger

Advantages



Riptide

Agrostis stolonifera



GOLF

AVG SOWING RATE: 5 g/m²
MOWING HEIGHT: 2 - 5 mm

SEED VARIETIES

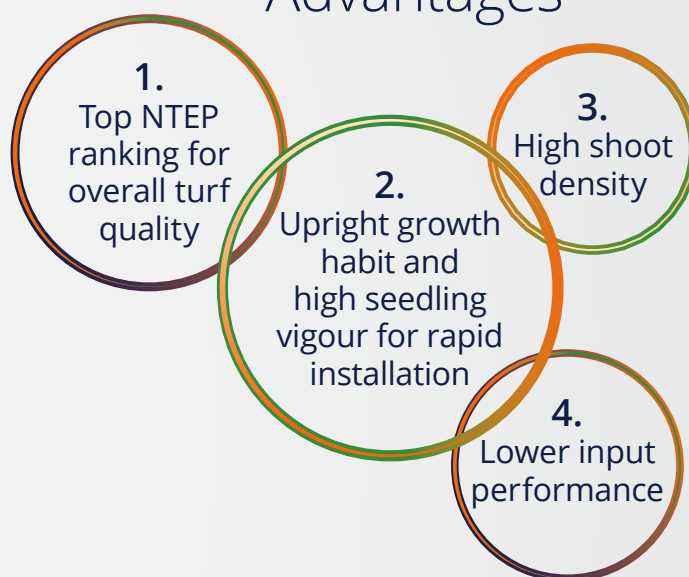
- 100% Creeping bentgrass
Riptide

High seedling vigour for rapid installation

Riptide (*Agrostis stolonifera*) is a fine-leaved, creeping bentgrass adapted to European climatic conditions exhibiting great winter performance for colour retention, frost tolerance and disease resistance.

Ideal for golf course greens, tees and fairways this densely-shooting bentgrass establishes quickly, especially in spring and keeps its bright mid-green colour right through autumn and winter.

Advantages



Turf seed varieties





Have no fear.

*Keep your sportsfields in perfect condition
using the best technology available*

Turf Sod Production (TSP) Blend Selector Index

Product	Performance	Golf				Sports				SOD	Page
		Greens	Fairways	Tees	Roughs	Sports stadia	Training grounds	Racecourses	Outfields & Lawns		
TSP 6535			✓	✓		✓	✓	✓	✓	✓	20
TSP 9010			✓	✓		✓	✓	✓	✓	✓	21
TSP 8020			✓	✓		✓	✓	✓	✓	✓	22
TSP 8515			✓	✓		✓	✓	✓	✓	✓	23

Subject to availability, ICL reserves the right to substitute varieties in its blends.

Visit www.icl-sf.com to view our full grass seed portfolio.
Select your local country site to find out more about the seeds varieties and blends appropriate for your region.

TSP 6535

Lolium perenne



SPORTS

SOD

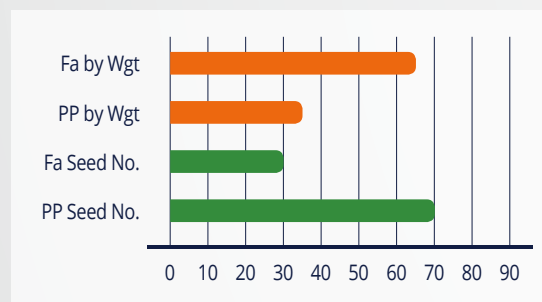
AVG SOWING RATE: 30 g/m²
MOWING HEIGHT: 25 - 35 mm

Stadium sod blend with built in TRT self repair system

TSP 6535 is a blend of perennial ryegrass and kentucky bluegrass offering aimed at the production of high wear tolerant sod aimed at the stadium and training field market. The blend contains the revolutionary Torsion perennial ryegrass designed to improve turf density and reduce time to lifting.

TSP 6535

% by Weight/by Seed numbers



SEED VARIETIES

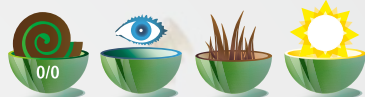
- 25% Torsion
Lolium perenne
- 20% Grandslam
Lolium perenne
- 20% Mistral
Lolium perenne
- 20% Enigma
Poa pratensis
- 15% Legend
Poa pratensis

Advantages



TSP 9010

Festuca arundinacea



SPORTS

SOD

AVG SOWING RATE: 42,5 g/m²
MOWING HEIGHT: 25 - 35 mm

SEED VARIETIES

- 45% Spyder LS
Festuca arundinacea
- 45% Avenger
Festuca arundinacea
- 10% Heatmaster Hybrid
Poa pratensis

Emphasis on Heatmaster hybrid bluegrass

TSP 9020 combines all the same attributes as TSP 8515 with emphasis on Heatmaster hybrid bluegrass and leaning towards greater seed numbers of Tall fescue within this blend, hence the higher seeding rate.

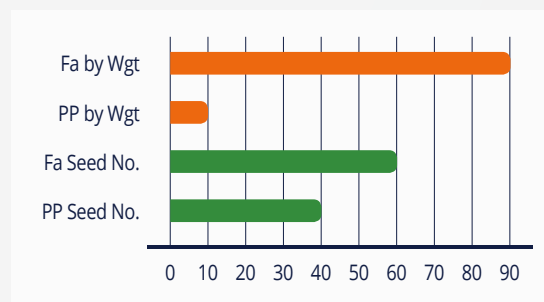
Advantages



TSP Selector

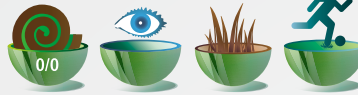
TSP 9010

% by Weight/by Seed numbers



TSP 8020

Festuca arundinacea



SPORTS

SOD

AVG SOWING RATE: 37.5 g/m²
MOWING HEIGHT: 25 - 35 mm

Maximum lateral spreading for dense sod

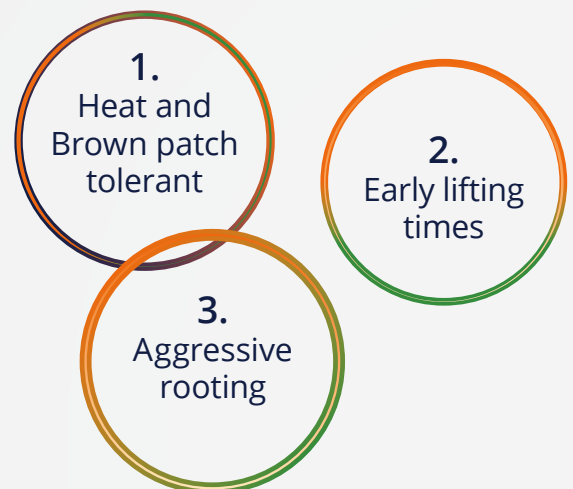
TSP 8020 is a blend of tall fescue and Kentucky bluegrass offering outstanding performance for establishment and short turnaround time for lifting.

The selection of varieties makes this blend well adapted to the warmer climates of Southern Europe where water conservation is important. The aggressive rhizomatous rooting habit from the hybrid bluegrass and overall high percentage inclusion provides excellent root strength in a short period.

SEED VARIETIES

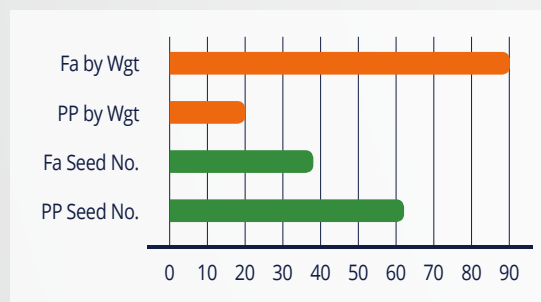
- 40% Spyder LS
Festuca arundinacea
- 40% Avenger
Festuca arundinacea
- 10% Heatmaster Hybrid
Poa pratensis
- 10% Prosperity
Poa pratensis

Advantages



TSP 8020

% by Weight/by Seed numbers





TSP 8515

Festuca arundinacea



SPORTS

SOD

AVG SOWING RATE: 40 g/m²
MOWING HEIGHT: 25 - 35 mm

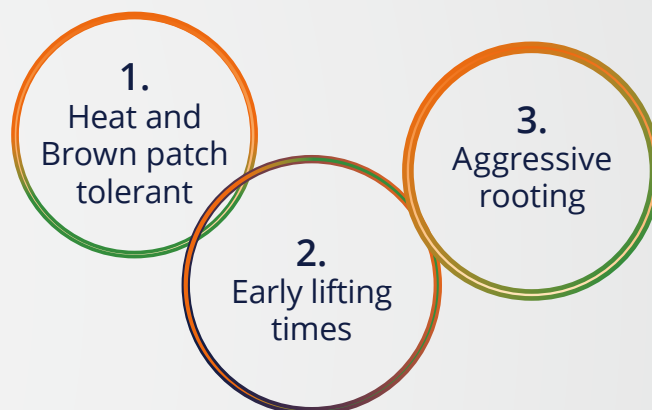
SEED VARIETIES

- 45% Spyder LS
Festuca arundinacea
- 40% Avenger
Festuca arundinacea
- 10% Heatmaster Hybrid
Poa pratensis
- 5% Prosperity
Poa pratensis

Best balance in terms of seed number

TSP 8515 combines all the same attributes as TSP 8020 but with a lower percentage of Kentucky bluegrass giving a balance between the Tall fescue in terms of seed number.

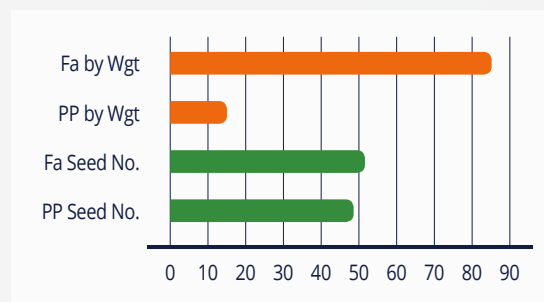
Advantages



TSP Selector

TSP 8515

% by Weight/by Seed numbers







Turf managers across the globe trust ICL products to deliver outstanding results

Our comprehensive range of professional turf and landscape fertilizers provides the highest quality nutrition for turf that is healthy, resilient and looks good.

Our unique, cutting edge, controlled-release and slow release technologies deliver nutrients accurately, efficiently and precisely.

Fertilizer Index

Product Range	Height Of Cut	Turf Use					Application Method	Technology	Longevity	Page
		Greens	Tees	Fairways	Sports Fields	Amenity				
Granular										
ProTurf			✓✓	✓✓	✓✓	✓✓	Spreader			26
SierrablenPlus			✓✓	✓✓	✓✓	✓✓	Spreader	 	 	27
STEP Hi-Mag		✓	✓	✓	✓	✓	Spreader			28
Sportsmaster CRF Mini			✓	✓	✓	✓	Spreader			29
Sportsmaster Base			✓✓	✓	✓	✓	Spreader	 Conventional		30
Liquid										
Sportsmaster WSF		✓✓	✓✓	✓✓	✓✓	✓✓	Sprayer			31

✓✓ Very suitable ✓ Suitable

Visit www.icl-sf.com to view our full grass seed portfolio.
Select your local country site to find out more about the seeds varieties and blends appropriate for your region.



PERFORMANCE

depending on environmental factors

- Granule dispersal: 8 days (visually dispersed from surface)
- Turf response: 7 days
- Longevity: 2 months






High impact fertilizers for tees, surrounds, fairways, sports fields and lawns.

ProTurf is a range of high quality blended granular fertilizers with controlled release technology. Formulated to give a strong immediate response, then a 2 - 3 month release pattern. The range also contains polyhalite, a new multi-nutrient compound fertilizer component containing four macro-nutrients (K, MgO, CaO & S) all in one granule.

Advantages



ProTurf range

Product name oxide analysis (Elemental analysis)	Technology	Longevity	Product notes	Nutrient breakdown							Bag sizes (kg)	App-rate (g/m ²)	Nutrient levels applied (kg/ha)			Bag coverage (m ²) per
				Total N (% Coated)	Nitrogen		Total P	Total K	CaO	Mgo			N	P	K	
					N-NH4	N-Urea										
20-0-7 +3CaO +3MgO (20-0-5.8 +2.1CaO +1.8MgO)		2	Strong inital boost coupled with longevity is ideal for in-season applications	20 (25)		20		7	3	3	25	20	40.0		14.0	1,250
												25	50.0		17.5	1,000
												30	60.0		21.0	833
												35	70.0		24.5	714
12-5-20 +2CaO+2MgO (12-2.2-16.6 +1.4CaO +1.2MgO)		2	Designed to sustain, strengthen and harden turf through the autumn and winter	12 (25)	1.3	10.7	5	20	2	2	25	20	24.0	10.0	40.0	1,250
												25	30.0	12.5	50.0	1,000
												30	36.0	15.0	60.0	833
												35	42.0	17.5	70.0	714
18-0-7+3CaO+3MgO		2	Designed to stimulate growth and green-up through the season	18 (25)	2.1	15.9		7	3	3	25	20	36		14	1,250
												25	45		17.5	1,000
												30	54		21	833
												35	63		24.5	714
15-5-15+2CaO+2MgO		2	A balanced ratio for all season applications	15 (25)	1.3	13.7	2.2	15	2	2	25	20	30	4.4	30	1,250
												25	37.5	5.5	37.5	1,000
												30	45	6.6	45	833
												35	52.5	7.7	52.5	714
21-5-6+2.5CaO +2.5MgO		2	Use through the season to support healthy plant growth	21 (25)	1.3	19.7	2.2	6	2.5	2.5	25	20	42	4.4	12	1,250
												25	52.5	5.5	15	1,000
												30	63	6.6	18	833
												35	73.5	7.7	21	714

Sierrablen[®] Plus

Premium technology controlled release mini-prill fertilizers.

The range blends Poly-S and resin-coated PACE technology with conventional N-sources providing the best long-term nutrient release patterns. The mini granular formulation allows even coverage at low application rates. A number of the analyses contain coated P and K extending longevity and quality of performance. SierrablenPlus uses Poly-S and PACE Technology. More information about these technologies on page 54.



PERFORMANCE








depending on environmental factors

- Granule dispersal: 7 days (visually dispersed from surface)
- Turf response: 7 days
- Longevity: 3+ months, 4 - 5 months and 5+ months

Advantages



Sierrablen Plus range

Product name oxide analysis (<i>Elemental analysis</i>)	Technology	Longevity	Product notes	Nutrient breakdown						Bag sizes (kg)	App-rate (g/m ²)	Nutrient levels applied (kg/ha)			Bag coverage (m ² per (20/25 kg bag)
				Total N (% Coated)	Nitrogen			Total P	Total K			N	P	K	
					N-NO ₃	N-NH ₄	N-Urea								
N-Start 30-5-5			Ideal for early season growth	30 (80)	2.3	3.4	24.3	5	5	25	20 25 30 35	60 75 90 105	10 12.5 15 17.5	10 12.5 15 17.5	1,250 1,000 833 714
Renovator (3 Months) 20-20-8 (20-8.7-6.6)			Controlled release base feed that is ideal for new stadia constructions to give fast re-establishment	20 (80)		4	16	20	8	25	25 30 35	50 60 70	50 60 70	20 24 28	1,000 833 714
Spring Starter (3 Months) 24-5-13 (24-2.2-10.8)	 		Encourages healthy balanced growth at start of season	24 (79)	2	3	19	5	13	25	25 30 35	60 72 84	12.5 15.0 17.5	32.5 39.0 45.5	1,000 833 714

STEP[®] Hi-Mag



PERFORMANCE

depending on environmental factors

- Granule dispersal: 4 - 5 days
- Turf response: 7 days
- Longevity: 6 weeks

Trace elements for managing disease more effectively.



STEP Hi-Mag is proven to reduce disease pressure in turf when used as part of an iTurf programme. Manganese plays an important role in managing Take-All Patch disease and when used efficiently, helps to minimise its occurrence.

An STRI trial showed that by combining the high Manganese contained in STEP Hi-Mag with a slow release SierraformGT programme, Take-All Patch level is maintained at an acceptable level of under 2% cover. Combining this nutritional programme with a fungicide programme totally eradicated the disease from the turf.

Advantages



STEP Hi-Mag

Product name oxide analysis (Elemental analysis)	Longevity	Product notes	Nutrient breakdown					Bag sizes (kg)	Applica- tion rate (g/m ²)	Nutrient levels applied (kg/ha)					Bag coverage (m ²) per 20 kg bag
			MgO	Cu	Fe	Mn	Zn			MgO	Cu	Fe	Mn	Zn	
STEP Hi-Mag	6 Weeks	Prevents trace element deficiencies and contains Magnesium for turf health and colour	19.8	0.50	8.0	3.0	1.0	20	7 11	13.9 21.9	0.4 0.6	5.6 8.8	2.1 3.3	0.7 1.1	2,857 1,818

Sportsmaster[®] CRF Mini



PERFORMANCE

depending on environmental factors

- Granule dispersal: 6 days (visually dispersed from surface)
- Turf response: 7 days
- Longevity: 2 - 3 months

An advanced, controlled release fertilizer that lasts 2-3 months.

With a combination of conventional and coated fertilizer technologies, Nitrogen is released at separate intervals. Poly-S technology provides regular growth without surges and uncoated materials give turf a quick boost. The density of mini-granules applied per square metre ensures that turf colour is rapidly improved. Sportsmaster CRF Mini's low application rate is also more cost-effective as less fertilizer is needed.

Advantages



1.
Regular,
even growth

2.
Mini granule
boosts plant
density













3.
Fast and
even green
turf colour

4.
At lower
application rate
even more cost
effective

Fertilizers

The complete Sportsmaster CRF Mini range

Product name oxide analysis (<i>Elemental analysis</i>)	Technology	Longevity	Product notes	Nutrient breakdown								Bag sizes (kg)	App-rate (g/m ²)	Nutrient levels applied (kg/ha)			Bag coverage (m ²) per
				Total N (% Coated)	Nitrogen		Total P	Total K	CaO	Mgo	Fe			N	P	K	
					N-NH4	N-Urea											
High N 24-5-11 (24-2.2-9.1)			Ideal first controlled release fertilizer application of the season. Quick reaction in cooler conditions	24 (37)	2.5	21.5	5	11				25	27.5	60	12.5	27.5	714 - 1,250
Start 19-19-5 +2MgO +TE (19-8.3-4.1 +1.2Mg +TE)			Ideal to use when over-seeding or laying down new turf	19 (48)	3.5	15.5	19	5		2	0.5	25	27.5	47.5	47.5	12.5	714 - 1,250
Stress Control 10-5-21+2CaO+2MgO			Ideal for use later in the season for autumn stress conditioning	10 (41)	1.4	8.2	5	26	2	2		25	20	20	10	52	1,250
													25	25	12.5	65	1,000
													30	30	15	78	833
													35	35	17.5	91	714
Active 15-5-15+2CaO+2MgO			A balanced ratio to support growth and plant health through the season	15 (41)	1.4	13.2	5	15	2	2		25	20	30	10	30	1,250
													25	37.5	12.5	37.5	1,000
													30	45	15	45	833
													35	52.5	17.5	52.5	714
Spring Starter 20-5-10+2MgO			Designed to stimulate growth through the early part of the season and into the summer	20 (43)	1.2	18.8	5	10	0	2		25	20	40	10	20	1,250
													25	50	12.5	25	1,000
													30	60	15	30	833
													35	70	17.5	35	714

Sportsmaster[®] Base

High quality mini-granular fertilizer range for sports and professional landscape turf.

The Sportsmaster range is well established as being the industry standard fertilizer for turf mown above 6 mm. The various analyses are designed to maintain turf performance throughout the year. The mini-granule formulation spreads nutrients evenly and rapidly for immediate, consistent growth and turf colour.



PERFORMANCE


depending on environmental factors

- Granule dispersal: 4 - 5 days
- Turf response: 7 days
- Longevity: 6 weeks

Advantages



Sportsmaster Base range

Product name oxide analysis (Elemental analysis)	Technology	Product notes	Nutrient breakdown								Bag sizes (kg)	App-rate (g/m ²)	Nutrient levels applied (kg/ha)			Bag coverage (m ²) per 25 kg bag
			Total N	N-NH ₄	N-Urea	Total P	Total K	CaO	MgO	Fe			N	P	K	
High N 22-5-5+2.5CaO+2.5MgO		To support the grass when it is growing strongly	22	1.3	20.7	5	5	2.5	2.5		25	20	44	10	10	1,250
												25	55	12.5	12.5	1,000
												30	66	15	15	833
												35	77	17.5	17.5	714
Pre-Seeder 8-12-8+6CaO+2.5MgO (8-5.2-6.3+4.3Ca+1.5Mg)	Conven- tional	High Phosphorus analysis to enhance seed establishment and better rooting	7.2	7.2		12	8	6	25		25	40	24	36	24	833
												45	36	54	36	714
												50	40	60	40	500

Use plant protection products safely. Always read the label and product information before use.

Sportsmaster[®] WSF

High performance ultra soluble fertilizers for cost effective treatment of large turf areas.

The WSF Range of soluble fertilizers contains TMax to enhance nutrient uptake. The foliar and root uptake gives a rapid response that is then sustained for a number of weeks. The range of analyses is designed for use throughout the year. The WSF range provides excellent value when treating large areas, especially golf fairways. It is compatible within the ICL range and tank mixes with Primo Maxx.



PERFORMANCE




depending on environmental factors

- Granule dispersal: immediate
- Turf response: < 24 hours
- Longevity: 2 - 4 weeks (depending on rate)

Advantages



Sportsmaster WSF range

Product name oxide analysis (<i>Elemental analysis</i>)	Technology	Product notes	Nutrient breakdown												Bag sizes (kg)	App-rate (g/m ²)	Water volume (L/ha)	Nutrient levels applied (kg/ha)			Bag coverage (m ²) per 15 kg bag
			Total N	Nitrogen			Total P	Total K	B	Cu	Fe	Mn	Mo	Zn				N	P	K	
				N-NO ₃	N-NH ₄	N-Urea															
High N 35-0-14 +0.13Fe (35-0-11.6 +0.13Fe)		Nitrogen boost with Potassium content providing balanced growth and stronger turf	35	4.3		30.7	5	11							15	15 30 45 60	300-600 (Foliar) 600-1,000 (Root)	5.3 10.5 15.8 21.0		2.1 4.2 6.3 8.4	10,000 5,000 3,333 2,500
Spring & Summer 28-5-19 +TE (28-2.1-15.7 +TE)		Nitrogen boost with Potassium and Trace element package for improved turf health	28	5.6	1.0	21.4	19	5		2	0.5	0.06	0.01	0.016	15	15 30 45 60	300-600 (Foliar) 600-1,000 (Root)	4.2 8.4 12.6 16.8	0.8 1.5 2.3 3.0	2.9 5.7 8.6 11.4	10,000 5,000 3,333 2,500
SeaMax 4-0-15 +TE (4-0-12.5 +TE)		Premium high density Atlantic Ascophyllum nodosum seaweed extract with proven plant benefits	4		4		5	10	0	2					1	1	600-1,000	0.04		0.15	10,000

The all new Specialist H2Pro wetting agents

Designed to help you get a grip on your moisture management.

Utilising advanced polymer and surfactant technology, the new range of three specialist wetting agents; H2Pro TriSmart, H2Pro FlowSmart and H2Pro AquaSmart have been carefully formulated and tested to help you achieve better control of your moisture management. Supported by research, backed by end-user testimonial the new range have been designed to achieve specific goals each with a different mode of action.

Each of these wetting agents has been formulated from a different blend of Block Co-polymers and co-formulants, incorporating specialist chemistries to achieve a specific result. The full range allows you to focus your moisture management to your particular needs. For more details, please visit h2pro.icl-sf.com.



Wetting Agents Index

Product Range	Height Of Cut	Application Method	Technology	Application rate	Water volume	Pack size	Pack coverage	Page
H2Pro FlowSmart		Sprayer		Monthly 10 L/ha	300 - 600 L/ha	2 x 10 L	2 Ha	34
H2Pro AquaSmart		Sprayer		5 L L/ha	600 - 900 L/ha	4 x 5 L	2 Ha	35

Subject to availability, ICL reserves the right to substitute varieties in its blends.

Visit www.icl-sf.com to view our full grass seed portfolio.
Select your local country site to find out more about the seeds varieties and blends appropriate for your region.

H2Pro[®] FlowSmart

FlowSmart by H2Pro is designed as the next generation penetrant wetting agent for the industry; combining new surfactant technology as a carefully blended combination of polymer and penetrants.

Flowsmart reduces surface tension – providing excellent water infiltration and penetration, with a selected block co-polymer to retain FlowSmart in the rootzone allowing continued re-wetting and effective and efficient water penetration and water movement into and down through the rootzone. Research shows use of FlowSmart helps retain a drier turf surface under wet conditions.



APPLICATION RATE

- monthly 10 litres per hectare
- Water volume: 300 - 600 litres p/H

CHARACTERISTICS

- Pack size: 2 x 10 litres
- Pack coverage: 2 hectare



Advantages

1.
Helps surface water penetrate quickly

2.
Maximizes the effectiveness of irrigation treatments

3.
Maintain year round playing surfaces, providing a drier surface in wet conditions

4.
Assist with flushing of carbonates and salts from rootzones



save water

H2Pro[®] AquaSmart

AquaSmart by H2Pro is an outfield wetting agent designed to provide greater water-use efficiency.

Formulated as a blend of surfactants AquaSmart can help maintain turf quality through periods of dry weather by maximizing the effectiveness of irrigation or rainfall. A flexible application rate and application interval can be used dependent upon requirements for ultimate water management flexibility. The unique surfactant formulation helps water penetrate and spread through the soil and provides good water retention to maintain a healthy plant and a quality surface. Regular applications through the summer season will reduce incidence of dry patches appearing maintaining turf density. For best results apply three to four times though the summer in a programmed approach.



APPLICATION RATE

- 5 litres per hectare
- Water volume:
600 - 900 litres p/H

CHARACTERISTICS

- Pack size: 4 x 5 litres
- Pack coverage: 2 hectare



Advantages

1.
Flexible
application
rates

2.
Protects turf
quality through
periods of dry
conditions

3.
Improves
water use
efficiency
for outfield
areas

4.
Reduces incidence
of dry patch
formation



Wetting agents

less costs



The power of knowledge at your fin

Visit our Knowledge Portal on www.icl-sf.com/knowledge-portal



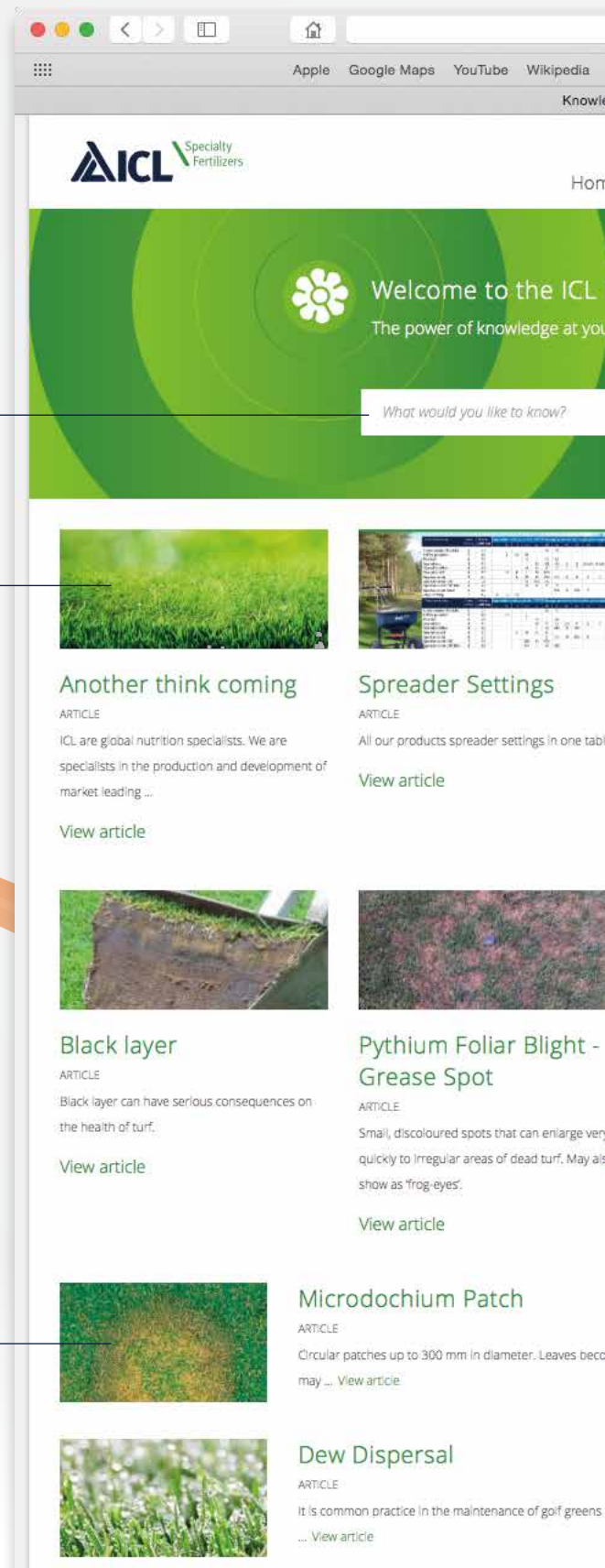
Our Knowledge portal is designed to find answers to most of your questions.

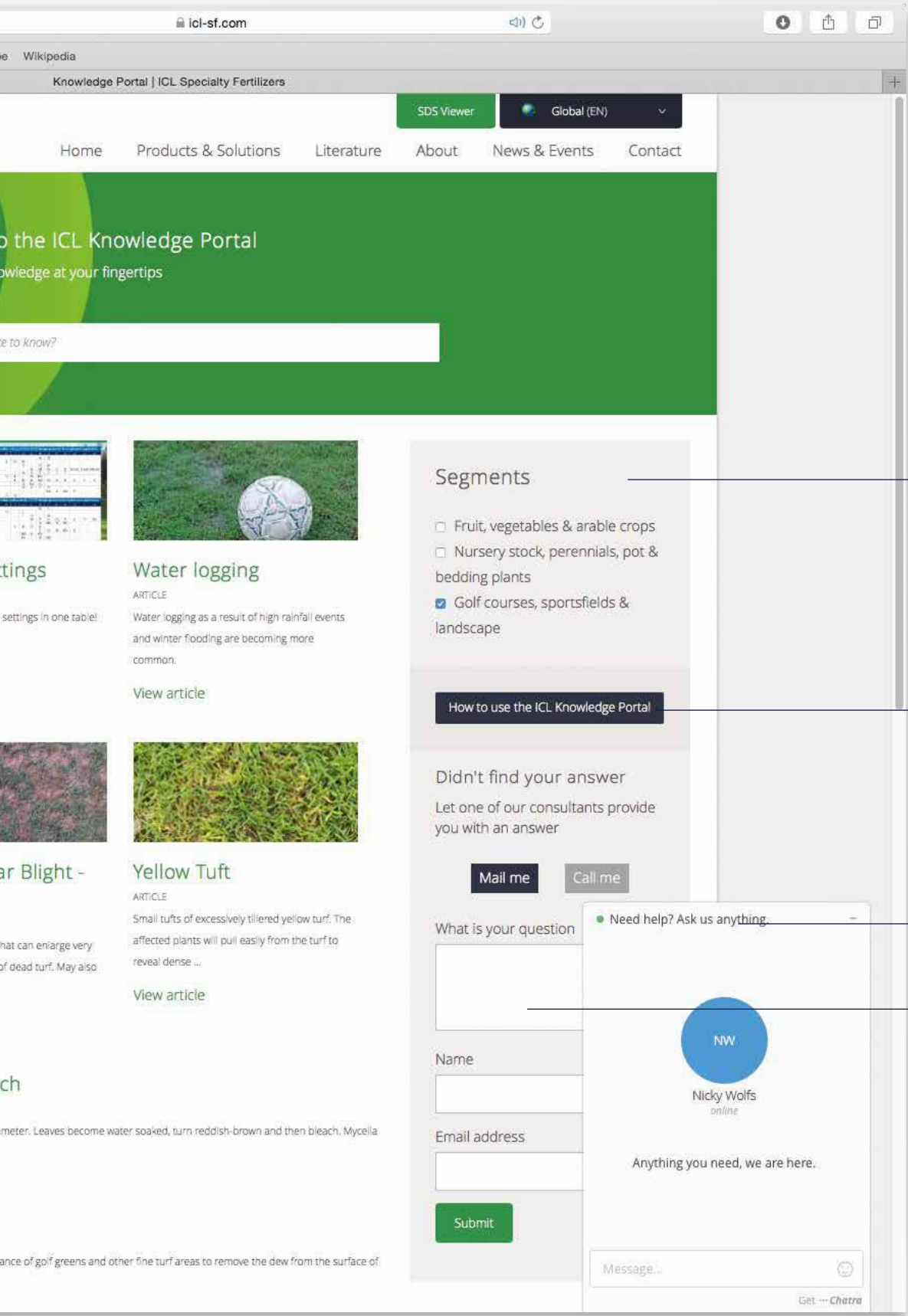
If feel like there is not an accurate answer to your question, you can contact us by using the form or start a live chat with one of our consultants.

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Over one hundred articles to read





Refine search options

How to use... tutorial

Live chat

Reply form



About



As part of the ICL Group, we strive to bring you the most technically advanced products and solutions

ICL provide speciality fertilizers and nutrition programmes, turf seed, plant protection products and growing media to help you meet the demands of modern-day turf and landscape management.

We take great pride in the integrity and value of our dynamic world-class product portfolios and in the provision of dedicated technical support, available to you from the team at ICL.

Through our product technologies, our ongoing support of end-user education and through iTurf, our integrated turf management programme, we continue to advocate best practice in turf management and sound environmental stewardship.

With market-leading fertilizer brands – including SierrablenPlus, SierraformGT and Greenmaster – and a wealth of knowledge in both our Turf & Landscape technical teams and our network of distributors, we look forward to working with you and supporting you in all aspects of your work.

Driven by innovation

We continually invest in new products and have some of the most advanced Research and Development facilities in the world. We are also committed to sustainability, helping to maintain our environment in an efficient and responsible way.

From raw materials through to finished product, we are dedicated to producing the finest range of fertilizer, plant protection and grass seed technologies, all backed up by first-class customer service. Turf managers at many of the world's finest sporting venues trust our technologies to help them produce high quality turf for sports and amenity use.



Inspired by nature

As well as fertilizer, plant protection products and grass seeds, ICL offers expertise and solutions to a range of turf problems, which we bring together in our unique programme of integrated turf practices and treatments.

Integrated turf management (ITM) focuses on using the best products in the most efficient and responsible way. ICL is championing ITM through iTurf in order to provide turf managers with an easy way of meeting their environmental responsibilities and complying with increasing rules and regulations regarding chemical application. It also helps them maintain healthy turf through long-term sustainable management.



For further information contact your
ICL Technical Area Sales Manager
or visit www.icl-sf.com

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ICL
Where needs take us