

Newsletter Professional Turf



Overseeding During Cold Periods

It is late autumn. Heavy wear has left your field all but green. And you might end up with a patchy pitch after winter and snow stress. How do you get a uniform and green field again? And how do you keep it green? DLF now has all components to make it happen.

Green, playable field all year round!

Overseeding improves your pitches in several ways. It introduces new, better performing genetics in the pitch and it ensures a denser, diverse and balanced pitch. By overseeding, weed seeds, e.g. *Poa annua*, are outcompeted.

Fast establishment

When overseeding in late autumn or early spring, temperatures are often too low for allowing normal varieties to germinate and establish. DLF now has screened its portfolio and identified those varieties that are able to establish in low temperature conditions. In first place is AXCELLA, our *Lolium multiflorum* *Westerwoldicum*, for fast germination and emergence (fig. 1). Also many of our top *Lolium perenne* varieties germinate well at low temperatures, e.g. DYLAN, TROYA, GREENSKY, TOPHAT 2, GREENGLIDE, KOKOMO, VENICE, HIMALAYA and NATASHA.

Excellent disease and stress tolerance

Snow cover during winter time causes high pressure on the grasses. Especially *Fusarium* (snow mold) can become a severe problem. 4turf is our new turf type of tetraploid Perennial Ryegrass (*Lolium perenne* 4n) bred especially for rapid establishment and unique stress tolerance (fig. 2). In addition, 4turf offers excellent summer stress, resulting in better tolerance to summer wear.



The final component in the mixture should be Rough-stalked Meadow-grass (*Poa trivialis*) varieties like DASAS, SABRENA 1 and BOGANIS. These varieties tolerate shade under more humid conditions. In addition, all above mentioned varieties are top-ranked within their species group in terms of wear and salt tolerance!

Advantages and benefits from overseeding during cold periods

- Fast emergence at low temperatures
- Excellent winter stress
- Green cover all year long
- More playing hours on green cover



Figure 1: Establishment of AXCELLA compared to an ordinary diploid Perennial Ryegrass. Sown in January 2011 in the Netherlands.



Figure 2: Survival of 4turf after a prolonged snow cover, winter 2011 in Denmark.

Overseeding mixtures

Table 1 below indicates the most important characteristics for overseeding. Overseeding in cold periods is focusing on fast establishment. Normal overseeding in late spring is predominantly aiming at obtaining maximum wear tolerance. Table 1 shows how the different components attribute to these goals.

Table 1: Characteristics of components in overseeding mixtures.

SPECIES CHARACTERISTICS				
CHARACTER	AXCELLA	4TURF	LP-2N	PT
Low temp establishment	9	8	8	7
Winter stress tolerance	4	9	7	6
Summer stress tolerance	6	9	7	3
Shade tolerance	4	4	6	8
Wear tolerance	6	8	9	4

9 = excellent, 1 = very poor

In table 2 below, suggested mixture compositions for both purposes are shown. The 'late autumn' mixture being the most versatile, containing all species. The 'winter/early spring' mixture is dominated by AXCELLA for fastest green up. The normal 'spring/autumn' mixture aiming at maximum wear tolerance.

Table 2: Suggested mixtures for overseeding. Lp-2n = diploid Perennial Ryegrass.

OVERSEEDING DURING COLD PERIODS				
SPECIES	CHARACTERISTICS	PERIOD OF OVERSEEDING		
		LATE AUTUMN	WINTER/EARLY SPRING	SPRING/AUTUMN
AXCELLA	Rapid green up	25%	50%	X
4turf	summer + winter stress tolerance	25%	25%	X
Poa trivialis	Shade tolerance	20%	X	X
LP-2N low temp germ	Wear tolerance rapid germination	30%	25%	X
LP-2N ALL	Wear tolerance	X	X	100%
Total		100%	100%	100%

Result: Green, Playable Field All Year Round!

“Having seen the benefits from using Johnsons J Premier Pitch in recent years, I naturally turned to J Rescue when sowing late into the year. Despite sowing it during very cold conditions, J Rescue really impressed me with its speed of germination and ground cover in this difficult period.”

Martin Knight,
Head Groundsman,
Worcester Warriors Rugby Club.

