

# iSeed®

## Nutrient Coating for Turf Growers



### iSEED®: FEEDS THE SEEDS! NOT THE WEEDS!

- **Shorter production time , saving up to 33% in time**
- **Higher sward quality** [16- 34% more plants; 18 - 85% longer roots; 0% weeds]
- **Reduced Poa annua levels**
- **Targeted nutrient application** [Feeding the seed, not the weeds]
- **Environmentally friendly** [reduced losses of fertilizer to the environment]
- **Labour saving and cost effective**

#### At least one third shorter production time

Uncoated seeds start to germinate and immediately look for nutrients. The nutrients in the iSeed® coating dissolve, and are quickly available for the seedling. Resulting in a higher number of seedlings (+ 16 - 34%), faster overall germination and an improved final establishment. The resulting sward is denser, more aggressive , deeper rooting (+ 18 - 85%) and contains fewer weeds [our trials showed 0%].As a consequence the turf production fields can be harvested earlier: a test harvest four months after sowing showed the control turf still falling apart, whereas the iSeed® already held together as turf. Trials have shown the turf to be ready for harvest at least 33% earlier than with normal seed.

#### Environmentally friendly, saving labour, cost effective

Phosphorus is especially important as a pre seeding application for early establishment. When broadcasting fertilizer, the utilization rate of phosphorus generally is between 5 and 10%. Nutrient uptake is faster when the nutrients are available in the soil and not broadcast. This is a marked advantage when overseeding. Phosphorus is easily fixed in the soil into forms that are unavailable for plant uptake. With iSeed®, the key nutrients are attached to the germinating seed and developing roots, The roots and shoots grow rapidly and the seedlings become strong and vigorous. This improves the use of all the available soil nutrients and decreases nutrient losses into the environment by fixation or leaching. With iSeed®, a starter fertilization is not longer needed . This saves time, money and energy.

Because of the weed suppression characteristics of iSeed®, fewer or no herbicide applications are needed.

% POA ANNUA		
Country	Control	iSeed®
BE 16/10/2008	3.6	0
NL 16/10/2008	2.5	0
NL 17/04/2009	5.0	0

## Feed per seed

iSeed® is a nutrient seed coating that is placed around the seed using a unique application process. The coating consists of a combination of fast acting and slow release fertilizers that for each 164 kgs of iSeed® product sown will supply ,100 kgs of seed , 20 kg N , 4 kg P the balance being the inert matter carrier.

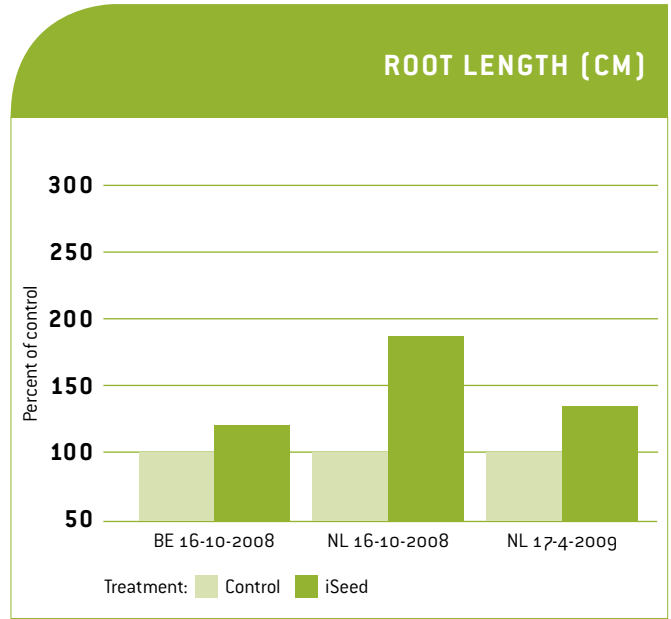
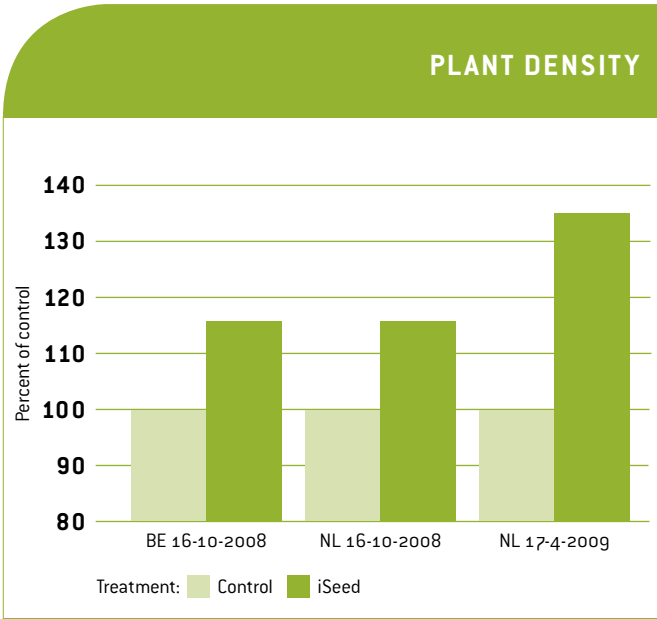
As the fertilizer is coated around the seeds, the germinating and developing seedling will directly benefit from it. Weeds will not.

The nitrogen and phosphate in iSeed® are up to four times more efficient , when compared to a broadcast application of an ordinary fertilizer. The exact number of units applied will depend on sowing rate.

Using iSeed® , the fertilizer is in the right place at the right time and additionally the coating ensures a better seed-soil contact.



**iSeed®: earlier harvestable product of perfect quality.**  
**iSeed®: saves money, labour and the environment.**



## Experiences in The Netherlands

Mr and Mrs Hendriks are owners of Hendriks Graszoden, a leading professional turf grower, who for many years has been producing turf in Holland and who exports most of his production all over the world: "In spring 2008 we sowed one field using iSeed®, and compared this with a normally sown field. The differences that we observed between the two were huge: with iSeed® we had faster development, denser sward and fewer weeds. And most important of all, we could harvest the iSeed® field much earlier. This saves us considerable amounts of amounts of money, as we need to rent less land when using iSeed®."



## Experiences in Belgium

Mr Schelfhout started growing turf in Belgium in 1992. At the moment he produces 80 hectares of standard z-slabs per year. He produces different kinds of turf, and is always looking for new developments, especially for making turf free of *Poa annua*, iSeed® definitely helps!



"iSeed® establishes faster and shows a denser stand, compared to normal seed. We didn't see any annual bluegrass at all in the iSeed® part! When using iSeed® we apply less fertilizers and herbicides, and are still able to harvest earlier. Saving money and the environment!"



iSeed® technology is subject to patents and patent application by Yara International ASA. iSeed® is registered trademark by Yara International ASA.

