Roots® Turf Food

granular fertilizers

- Outstanding and consistent color response
- Improves turf density and root mass
- Minimal roller and mower pickup
- Low soluble salts minimize any burn potential

- Golf & Sports Turf
- Lawn Care, Sod & Hydroseeding
- Arborist & Landscape
- Nursery & Greenhouse*

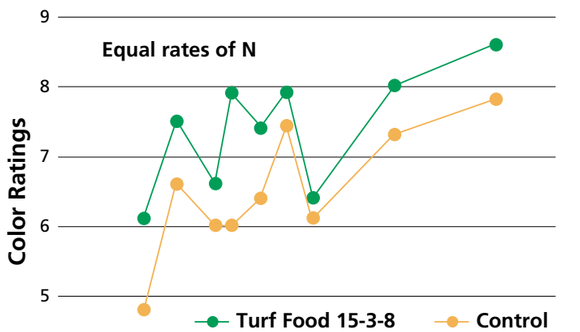
*8-2-6 only

SPECIFICATIONS

ROOTS® Turf Food is a proprietary **all-in-one nutrient delivery system** designed to feed the plant, and to enhance the biological life of the soil and plant ecosystem, with a unique combination of three component technologies:

- **Premium Organic-Based Components**
  - Selectively formulated from the **finest feather meal**
  - **Over 50% of amino acids** (contents by weight) which are excellent biological stimulants and food for microbes.
  - **A complex of macro and micro-nutrients and carbohydrates** are provided in a more natural form than synthetic fertilizers.
- **ROOTS® Biostimulant Complex**
  - **Proprietary formulation** of amino acids, vitamins, humic acids, sea kelp extracts and other ingredients.
- **Novozymes' Beneficial Microbes**
  - **Specific, naturally-occurring microbial strains** have been selected for their individual contribution to plant performance.
  - **ISO 9001:2000 Quality Management System** to assure purity and repeatability of results.
  - **U.S. Patent** on these strains given their novel and synergistic benefits when combined.

University of Wisconsin 1999 USGA Spec Bentgrass Turf Color Study



Significantly better color on 7 out of 9 dates during stress period vs comparable organic fertilizer at 3/4 lb N.

• *Bacillus amyloliquefaciens* SB3002	Produces hydrolytic enzymes that release nutrients in soil
• *Bacillus pasteurii* SB3003	Effective at low soil oxygen levels, produces hydrolytic enzymes that release nutrients in soil
• *Bacillus subtilis* SB3175	Produces natural chelate that enhances nutrient uptake
• *Bacillus laevolacticus* SB3006	Breaks down organic matter to release nutrients
• *Bacillus licheniformis* DA-33	Effective at higher soil temperatures
• *Paenibacillus azotofixans* SB3154	Converts atmospheric nitrogen into a form useable by plants

ROOTS® Turf Food

	ROOTS TURF FOOD					
	5-2-12	8-2-6	12-2-12	14-3-5	15-3-8	20-2-8
Fine Grade (100 SGN)	●	●	●	●	●	
Coarse Grade (200 SGN)	●	●	●	●	●	●
Kg product/100m²	2 to 4	3 to 6	2 to 4	1.7 to 3.4	1.6 to 3.2	1.6 to 3.2
m²/20 kg bag	500 to 1000	350 to 700	500 to 1000	600 to 1200	650 to 1250	650 to 1250
Nitrogen Breakdown	Total Nitrogen (N) 5.00% 0.60% Ammonical N 0.65% Urea N 0.55% Slowly Available Water Soluble N 3.20% Water Insoluble N	Total Nitrogen (N) 8.00% 7.00% Water Insoluble N 1.00% Slowly Available Water Soluble N	Total Nitrogen (N) 12.00% 0.20% Ammonical N 6.00% Water Insoluble N 2.30 Urea N 0.50% Water Soluble Organic N 3.00% Slowly Available Water Soluble N	Total Nitrogen (N) 14.00% 3.50% Ammonical N 4.00% Water Insoluble N 6.00% Urea N 0.50% Slowly Available Water Soluble N	Total Nitrogen (N) 15.00% 0.75% Ammonical N 7.00% Water Insoluble N 1.75% Urea N 2.00% Water Soluble Organic N 3.50% Slowly Available Water Soluble N	Total Nitrogen (N) 20.00% 0.90% Ammonical N 6.80% Water Insoluble N 3.00% Urea N 3.00% Water Soluble Organic N 5.00% Slowly Available Water Soluble N
Calcium (Ca)	3.0%	1.0%	1.0%	1.0%	1.0%	2.0%
Magnesium (Mg)	2.0%	0.5%	0.5%	0.5%	0.5%	1.2%
Sulfur (S)	2.0%	1.0%	2.0%	4.0%	1.0%	2.0%
Iron (Fe)	1.0%	1.0%	1.0%	4.0%	1.0%	2.0%
Manganese (Mn)	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%
Zinc (Zn)	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%
Copper (Cu)	0.1%	0.1%	0.1%		0.1%	0.2%
Sodium (Na)	0.1%		0.1%		0.1%	0.1%

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