

Green Spec™

Granular Fertilizers & Soil Amendments



2007 Product Catalog

GENERAL INFORMATION

GreenSpec™ homogeneous granulars were developed in response to our customers' requests for dry, granular fertilizers that would complement the use of **Grigg Brothers Foliar Fertilizers**.

The **GreenSpec™** line has been engineered using our proprietary "protein" technology to deliver the following results:

- Superior performance with long lasting color response.
- Value and environmental safety, efficient nutrient delivery, and minimized leaching.
- True soil improvement: reducing compaction making space for more air and water.

Our customers expect their granulars, synthetic or organic, to spread easily without dust and to dissolve quickly, in order to penetrate the tight, dense grasses in modern use.

GreenSpec™ fertilizers have been formulated with purity in mind. They do NOT contain any waste products, there are no fillers of any kind, no manures, and no cheap minerals locked up with high heavy metals. Each ingredient has its purpose as either a plant nutrient, or as an ingredient for soil improvement.

KEY COMPONENTS

Protein Technology Fertilizer

Organic, bioactive proteins:

Nitrogen and phosphorous components are obtained from specially processed animal products used in the food and flavoring industry. A lot of this protein goes into soup, gravy, bodybuilding supplements and in the case of our soy proteins, processed foods and cosmetics. These protein by-products are manufactured in a different manner than by-products found in most pet foods, animal feed, and some fertilizers. Less heat is used, along with specialized enzymes that give the material soluble qualities. For fertilizer, this means that the nitrogen and phosphorous are more available to the plant. Amino acid structures are left intact, giving them the ability to coat, or chelate, minerals into a form that is more readily absorbable by plants.

Great Salt Lake Solar Evaporated Sulfate of Potash:

Potassium comes from the waters of The Great Salt Lake in Utah. After evaporation, the natural minerals are separated using only hot water. This potassium is in its purest, natural form: no chlorides, no heavy metals and a low salt index. This product is certified for use by the U.S. Department of Agriculture for organic food production.

Iron, Manganese and Zinc Sucrates (U.S. patent #3567460):

These minerals are not bound by high heavy metal concentrations. The sucrating process renders them more assimilative because plant roots are attracted to the sugars surrounding the minerals.

Kelp (*Ascophyllum nodosum*):

The proprietary type of kelp used in **GreenSpec™** Fertilizers is unusual because of its high calcium and valuable mineral content. It is extremely low in salt and sodium. In addition, it goes through a fermentation process to extract certain microbial stimulating substances.

Humic Acid:

This is a unique form containing a high fulvic to humic ratio. Derived from only one deposit of Leonardite, this is the only type of humic acid that is backed by scientific studies. The fulvic acid fraction is extremely bioactive through its molecular structure and influences plant growth by effecting energy and chlorophyll content within the plant cells. The humic ratio can be thought of as old, ancient marbles that benefit soil structure by separating soil particles to provide openings for air and water penetration.

Signaling Molecules (glycoprotein elicitors) from Bio-Start, Ltd., New Zealand:

These help reduce soil compaction by opening up spaces for air and water. Spaces make fertilizers more efficient, allowing for oxygen penetration, which will dramatically reduce anaerobic disease.

How? Bio-Start's Signaling Molecules replicate root exudates that activate beneficial fungal spores, including Mycorrhizal fungi. These fungi act as plant root extensions, bringing in more water and nutrition. While doing this, fungi produce gum and threadlike substances in the soil that split open compacted soil particles to create more space. Additionally, they punch holes in soil surfaces to bring in air, and just as important, let out gasses produced by growing roots. These fungi are Mother Nature's form of aeration.

7-7-7

Seven Iron™

- **SEVEN IRON 7-7-7™** is formulated to produce extreme dark green color and correct mineral depleted soils while protecting ground water from high heavy metal concentrations.
- **7-7-7 SEVEN IRON™** has micronutrients specially formulated as "sucrates" that are sugars especially attracted to plant roots. As a result, these micros are absorbed much more quickly than those in traditional lawn fertilizers.
- **7-7-7 SEVEN IRON™** is a multi-purpose plant food, turf fertilizer, pre-plant and soil conditioning fertilizer that has been specially designed for use in spring, fall and summer. It's gentle, effective formula works even in the hottest weather! **GreenSpec™** contains 7% iron in two release forms. Iron sulfate releases quickly for faster upfront results. Iron sucrate releases slower over time, helping maintain color long-term.
- **7-7-7 SEVEN IRON™** contains all-natural "Signaling Molecules" (glycoprotein elicitors) from Bio-Start LTD, which are cutting edge products manufactured in New Zealand. **GreenSpec™** signaling molecules target beneficial fungi. These fungi produce gum and thread like substances in the soil. Growing fungal threads split open compacted soil particles to create spaces for air and water. They punch holes in soil surfaces to bring in air, and just as important, let out gasses produced by growing roots. They attach themselves to growing roots and extend the availability of nutrients. These fungi are Mother Nature's form of aeration. Golf course turf grasses naturally want more of these beneficial fungi in their soils. They continually produce signaling molecules in the form of root exudates to increase the fungal populations. But, chemicals, some fertilizers and heavy play disrupt these signals. **GreenSpec™** signaling molecules are very similar to the signaling molecules produced by a plant's root.
- **7-7-7 SEVEN IRON™** contains 7% Sulfur and 7% Calcium, 7% Iron, .30% Manganese & .20% Zinc.
- **7-7-7 SEVEN IRON™** also has a natural soil pH adjuster of at least 3.2% leonardite, a non-plant food ingredient derived from plant and animal fossils. This combines with available sulfur to rapidly correct salty, alkaline or imbalanced soil conditions.
- **7-7-7 SEVEN IRON™** offers sustained, even feeding (8-10 weeks) that means more controlled growth with less frequent mowing and fewer grass clippings.

This product contains both organic and inorganic ingredients and needs to be watered in thoroughly after application.

GUARANTEED ANALYSIS

| | |
|--|-------|
| Total Nitrogen (N) | 7.0% |
| 1.40% ammoniacal nitrogen | |
| 4.60% water soluble nitrogen | |
| 1.00% water insoluble nitrogen | |
| Available Phosphate (P ₂ O ₅) | 7.0% |
| Soluble Potash (K ₂ O) | 7.0% |
| Calcium (Ca) | 7.0% |
| Total Sulfur (S) | 7.0% |
| 7.0% Combined Sulfur (S) | |
| Iron (Fe) | 7.0% |
| 2.0% Water Soluble Iron (Fe) | |
| Manganese (Mn) | 0.30% |
| 0.10% Water Soluble Manganese (Mn) | |
| Zinc (Zn) | 0.20% |
| 0.08% Water Soluble Zinc (Zn) | |

Derived from: blood meal, bone meal, ammonium phosphate, sulfate of potash, ferrous sulfate, iron sucrate, manganese sucrate, zinc sucrate, kelp (*Ascophyllum nodosum*).

ALSO CONTAINS NON PLANT FOOD INGREDIENT:

- 3.20% humic acid derived from leonardite
- 0.09% hepta-beta-glucoside elicitor
- 0.08% chitin oligosaccharide elicitor

7-7-7

SEVEN IRON™

Guaranteed Analysis:

| | |
|--|-------|
| Total Nitrogen (N) | 7.0% |
| 1.40% ammoniacal nitrogen | |
| 4.60% water soluble nitrogen | |
| 1.00% water insoluble nitrogen | |
| Available Phosphate (P ₂ O ₅) | 7.0% |
| Soluble Potash (K ₂ O) | 7.0% |
| Calcium (Ca) | 7.0% |
| Total Sulfur (S) | 7.0% |
| 7.0% Combined Sulfur (S) | |
| Iron (Fe) | 7.0% |
| 2.0% Water Soluble Iron (Fe) | |
| Manganese (Mn) | 0.30% |
| 0.10% Water Soluble Manganese (Mn) | |
| Zinc (Zn) | 0.20% |
| 0.08% Water Soluble Zinc (Zn) | |

Derived from blood meal, bone meal, ammonium phosphate, sulfate of potash, ferrous sulfate, iron sucrate, manganese sucrate, zinc sucrate, kelp (*Ascophyllum nodosum*).

F1194

ALSO CONTAINS NON PLANT FOOD INGREDIENT:

- 3.20% humic acid derived from leonardite
- 0.09% hepta-beta-glucoside elicitor
- 0.08% chitin oligosaccharide elicitor

SUGGESTED GRANULAR APPLICATION RATES

| FAIRWAYS | GREENS |
|--|-------------------------------|
| 10 lbs. / 1000 Ft ² • 435 lbs. / Acre | 8 lbs. / 1000 Ft ² |

Water in thoroughly after application to help speed up breakdown.

For MSDS information and spreader settings visit www.griggbros.com

Information regarding the contents and levels of metals in this product is available on the Internet at:
<http://www.aapfco.org/metals.htm>

Manufactured exclusively for:

Grigg Brothers

P.O. Box 128 Albion, ID 83311

U.S. Toll Free: 1-888-246-8873

www.griggbros.com

PRODUCTS YOU CAN TRUST!



16-4-8

Turf Rally™

- **16-4-8 TURF RALLY™** is formulated to produce long lasting color improvement without generating excessive clippings. It conditions and improves depleted and compacted soils while protecting ground water from nutrient leaching and high heavy metal concentrations.
- **16-4-8 TURF RALLY™** has a special nitrogen formula that works in 3 different ways - a small amount of ammoniacal nitrogen (2%) gives a quick feeding and activates growth. A large percentage (11%) of water soluble, organic nitrogen quickly works its way into the soil where it provides continuous, even feeding. The smaller amount (3%) of water insoluble organic nitrogen, is a slow release form that feeds the turf for a longer period of time. This triple action formula gives lawns just the right amount of food to keep them looking great for 10 to 12 weeks or even more!
- **16-4-8 TURF RALLY™** has micronutrients specially formulated as "sucrates", that are sugars particularly attractive to plant roots. As a result, these micros are absorbed much more quickly than those in traditional lawn fertilizers.
- **16-4-8 TURF RALLY™** contains 6% Sulfur and 6% Calcium, 3% Iron, .20% Manganese & .10% Zinc.
- **16-4-8 TURF RALLY™** contains all-natural "Signaling Molecules" (glycoprotein elicitors) from Bio-Start LTD which are cutting edge products manufactured in New Zealand. **GreenSpec™** signaling molecules target beneficial fungi. These fungi produce gum and thread like substances in the soil. Growing fungal threads split open compacted soil particles to create spaces for air and water. They punch holes in soil surfaces to bring in air, and just as important, let out gasses produced by growing roots. They attach themselves to growing roots and extend the availability of nutrients. These fungi are Mother Nature's form of aeration. Golf course turf grasses naturally want more of these beneficial fungi in their soils. They continually produce signaling molecules in the form of root exudates to increase the fungal populations. But, chemicals, some fertilizers and heavy play disrupt these signals. **GreenSpec™** signaling molecules are very similar to the signaling molecules produced by a plant's root.
- **16-4-8 TURF RALLY™** has a natural soil pH adjuster of at least 3.2% leonardite, a non-plant food ingredient derived from plant and animal fossils. This combines with available sulfur to rapidly correct salty, alkaline, or imbalanced soil conditions.
- **16-4-8 TURF RALLY™** offers sustained, even feeding (10-12 weeks) that means more controlled growth with less frequent mowing and fewer grass clippings.

This product contains both organic and inorganic ingredients and needs to be watered in thoroughly after application.

GUARANTEED ANALYSIS

| | |
|---|-------|
| Total Nitrogen (N)..... | 16.0% |
| 2.00% ammoniacal nitrogen | |
| 11.00% water soluble nitrogen | |
| 3.00% water insoluble nitrogen | |
| Available Phosphate (P ₂ O ₅)..... | 4.0% |
| Soluble Potash (K ₂ O)..... | 8.0% |
| Calcium (Ca)..... | 6.0% |
| Total Sulfur (S)..... | 6.0% |
| 6.0% Combined Sulfur (S) | |
| Iron (Fe)..... | 3.0% |
| 1.50% Water Soluble Iron (Fe) | |
| Manganese (Mn)..... | 0.20% |
| 0.08% Water Soluble Manganese (Mn) | |
| Zinc (Zn)..... | 0.10% |
| 0.04% Water Soluble Zinc (Zn) | |

Derived from: blood meal, bone meal, urea, ammonium phosphate, sulfate of potash, ferrous sulfate, iron sucrate, manganese sucrate, zinc sucrate, kelp (*Ascophyllum nodosum*).

ALSO CONTAINS NON PLANT FOOD INGREDIENT:

- 3.20% humic acid derived from leonardite
- 0.09% hepta-beta-glucoside elicitor
- 0.08% chitin oligosaccharide elicitor



16-4-8

TURF RALLY™

Guaranteed Analysis:

| | |
|---|-------|
| Total Nitrogen (N)..... | 16.0% |
| 2.00% ammoniacal nitrogen | |
| 11.00% water soluble nitrogen | |
| 3.00% water insoluble nitrogen | |
| Available Phosphate (P ₂ O ₅)..... | 4.0% |
| Soluble Potash (K ₂ O)..... | 8.0% |
| Calcium (Ca)..... | 6.0% |
| Total Sulfur (S)..... | 6.0% |
| 6.0% Combined Sulfur (S) | |
| Iron (Fe)..... | 3.0% |
| 1.50% Water Soluble Iron (Fe) | |
| Manganese (Mn)..... | 0.20% |
| 0.08% Water Soluble Manganese (Mn) | |
| Zinc (Zn)..... | 0.10% |
| 0.04% Water Soluble Zinc (Zn) | |

Derived from blood meal, bone meal, urea, ammonium phosphate, sulfate of potash, ferrous sulfate, iron sucrate, manganese sucrate, zinc sucrate, kelp (*Ascophyllum nodosum*).

ALSO CONTAINS NON PLANT FOOD INGREDIENT:

- 3.20% humic acid derived from leonardite
- 0.09% hepta-beta-glucoside elicitor
- 0.08% chitin oligosaccharide elicitor

SUGGESTED GRANULAR APPLICATION RATES

| FAIRWAYS | GREENS |
|--|--|
| 6.25 lbs./1000 Ft ² • 272 lbs./Acre | 3.13 lbs./1000 Ft ² • 136 lbs./Acre |

Water in thoroughly after application to help speed up breakdown.

For MSDS Information and spreader settings visit www.griggbros.com

Information regarding the contents and levels of metals in this product is available on the Internet at:
<http://www.aapfco.org/metals.htm>

Manufactured exclusively for:

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U.S. Toll Free: 1-888-246-8873

www.griggbros.com

PRODUCTS YOU CAN TRUST!

F1194

8-4-16

Endurance™

- **8-4-16 Endurance™** is formulated to revitalize and strengthen turf, as well as improve color. It conditions and improves depleted and compacted soils while protecting ground water from nutrient leaching and high heavy metal concentrations.
- **8-4-16 Endurance™** is a product designed to be used as a substitute for 16-4-8 Turf Rally when smaller amounts of nitrogen are required. It will produce the same color improvements during the warmer summer months. Additionally, 8-4-16 Turf Rally is the ideal fertilizer for overly stressed and abused turf. Late fall applications protect against winter damage.
- **8-4-16 Endurance™** 100% of the potassium source is Great Salt Lake Sulfate of Potash, derived from solar evaporation ponds. It has the lowest salt index of any potassium source, and it is practically chloride free.
- **8-4-16 Endurance™** contains 6% Sulfur and 8% Calcium, 3% Iron, .20% Manganese & .10% Zinc.
- **8-4-16 Endurance™** contains all-natural "Signaling Molecules" (glycoprotein elicitors) from Bio-Start LTD which are cutting edge products manufactured in New Zealand. **GreenSpec™** signaling molecules target beneficial fungi. These fungi produce gum and thread like substances in the soil. Growing fungal threads split open compacted soil particles to create spaces for air and water. They punch holes in soil surfaces to bring in air, and just as important, let out gasses produced by growing roots. They attach themselves to growing roots and extend the availability of nutrients. These fungi are Mother Nature's form of aeration. Golf course turf grasses naturally want more of these beneficial fungi in their soils. They continually produce signaling molecules in the form of root exudates to increase the fungal populations. But, chemicals, some fertilizers and heavy play disrupt these signals. **GreenSpec™** signaling molecules are very similar to the signaling molecules produced by a plant's root.
- **8-4-16 Endurance™** has a natural soil pH adjuster of at least 3.2% leonardite, a non-plant food ingredient derived from plant and animal fossils. This combines with available sulfur to rapidly correct salty, alkaline, or imbalanced soil conditions.
- **8-4-16 Endurance™** offers sustained, even feeding and color for 8-10 weeks, with less frequent mowing.

This product contains both organic and inorganic ingredients and needs to be watered in thoroughly after application.

| GUARANTEED ANALYSIS | |
|--|-------|
| Total Nitrogen (N) | 8.0% |
| 2.00% ammoniacal nitrogen | |
| 4.50% water soluble nitrogen | |
| 1.50% water insoluble nitrogen | |
| Available Phosphate (P ₂ O ₅) | 4.0% |
| Soluble Potash (K ₂ O) | 16.0% |
| Calcium (Ca) | 8.0% |
| Total Sulfur (S) | 6.0% |
| 6.0% Combined Sulfur (S) | |
| Iron (Fe) | 3.0% |
| 1.50% Water Soluble Iron (Fe) | |
| Manganese (Mn) | 0.20% |
| 0.08% Water Soluble Manganese (Mn) | |
| Zinc (Zn) | 0.10% |
| 0.04% Water Soluble Zinc (Zn) | |

Derived from blood meal, bone meal, urea, ammonium phosphate, sulfate of potash, ferrous sulfate, iron sucrate, manganese sucrate, zinc sucrate, kelp (Ascophyllum nodosum).

ALSO CONTAINS NON PLANT FOOD INGREDIENT:

- 3.2% humic acids derived from leonardite
- 0.09% hepta-beta-glucoside elicitor
- 0.08% chitin oligosaccharide elicitor

GreenSpec™ Granular Fertilizers

8-4-16

ENDURANCE™

| Guaranteed Analysis: | |
|--|-------|
| Total Nitrogen (N) | 8.0% |
| 2.00% ammoniacal nitrogen | |
| 4.50% water soluble nitrogen | |
| 1.50% water insoluble nitrogen | |
| Available Phosphate (P ₂ O ₅) | 4.0% |
| Soluble Potash (K ₂ O) | 16.0% |
| Calcium (Ca) | 8.0% |
| Total Sulfur (S) | 6.0% |
| 6.0% Combined Sulfur (S) | |
| Iron (Fe) | 3.0% |
| 1.50% Water Soluble Iron (Fe) | |
| Manganese (Mn) | 0.20% |
| 0.08% Water Soluble Manganese (Mn) | |
| Zinc (Zn) | 0.10% |
| 0.04% Water Soluble Zinc (Zn) | |

Derived from blood meal, bone meal, urea, ammonium phosphate, sulfate of potash, ferrous sulfate, iron sucrate, manganese sucrate, zinc sucrate, kelp (Ascophyllum nodosum).

F1194

ALSO CONTAINS NON PLANT FOOD INGREDIENT:

- 3.20% humic acid derived from leonardite
- 0.09% hepta-beta-glucoside elicitor
- 0.08% chitin oligosaccharide elicitor

| SUGGESTED GRANULAR APPLICATION RATES | |
|--|---|
| FAIRWAYS | GREENS |
| 10 lbs./1000 Ft ² • 436 lbs./Acre | 5 lbs./1000 Ft ² • 218 lbs./Acre |

Water in thoroughly after application to help speed up breakdown.

For MSDS information and spreader settings visit www.griggbros.com

Information regarding the contents and levels of metals in this product is available on the Internet at:
<http://www.aapfco.org/metals.htm>

Manufactured exclusively for:
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www.griggbros.com

PRODUCTS YOU CAN TRUST!



10-2-4

All Natural Organic

- 10-2-4 ALL NATURAL ORGANIC** has exceptional solubility in an All Natural Organic that is free of waste products, filler, sludge, manure or by-product residue. It has a great 5-1-2 ratio, is completely ground water safe, and is not plagued with unpleasant odors.
- 10-2-4 ALL NATURAL ORGANIC** has excellent spreading and dissolving characteristics. The product is dense, dust-free and designed to penetrate the tight grasses in modern use. GreenSpec Protein Technology assures a quicker nutrient release, which means faster visual results in an All Natural Organic.
- 10-2-4 ALL NATURAL ORGANIC** has been designed to minimize the layering effect or blockages in the soil that are commonly associated with fertilizers of organic origin. This formula does not have ash, cellulose, lignins, or fillers that can retard nutrient recycling and produce fairy ring or anaerobic turf disease. It is extremely low in salts and sodium.
- 10-2-4 ALL NATURAL ORGANIC** contains all-natural "Signaling Molecules" (glycoprotein elicitors) from Bio-Start LTD which are cutting edge products manufactured in New Zealand. **GreenSpec™** signaling molecules target beneficial fungi. These fungi produce gum and thread like substances in the soil. Growing fungal threads split open compacted soil particles to create spaces for air and water. They punch holes in soil surfaces to bring in air, and just as important, let out gasses produced by growing roots. They attach themselves to growing roots and extend the availability of nutrients. These fungi are Mother Nature's form of aeration. Golf course turf grasses naturally want more of these beneficial fungi in their soils. They continually produce signaling molecules in the form of root exudates to increase the fungal populations. But, chemicals, some fertilizers and heavy play disrupt these signals. **GreenSpec™** signaling molecules are very similar to the signaling molecules produced by a plant's root.
- 10-2-4 ALL NATURAL ORGANIC** has a natural soil pH adjuster of at least 3.2% leonardite, a non-plant food ingredient derived from plant and animal fossils. This combines with available sulfur to rapidly correct salty, alkaline or imbalanced soil conditions.
- 10-2-4 ALL NATURAL ORGANIC** offers sustained, even feeding (10-12 weeks) that means more controlled growth with less frequent mowing and fewer grass clippings.

| GUARANTEED ANALYSIS | |
|--|-------|
| Total Nitrogen (N)..... | 10.0% |
| 1.10% water soluble organic nitrogen | |
| 8.90% water insoluble organic nitrogen | |
| Available Phosphate (P ₂ O ₅)..... | 2.0% |
| Soluble Potash (K ₂ O)..... | 4.0% |
| Calcium (Ca)..... | 4.0% |
| Sulfur (S)..... | 2.0% |
| 2.0% Combined Sulfur (S) | |
| Derived from: blood meal, soy protein, feather meal, bone meal, sulfate of potash, kelp (<i>Ascophyllum nodosum</i>). | |
| ALSO CONTAINS NON PLANT FOOD INGREDIENT: | |
| 3.20% humic acid derived from leonardite | |
| 0.09% hepta-beta-glucoside elicitor | |
| 0.08% chitin oligosaccharide elicitor | |

10-2-4

ALL NATURAL ORGANIC

| SUGGESTED GRANULAR APPLICATION RATES | |
|---|---|
| FAIRWAYS | GREENS |
| 10 lbs. / 1000 Ft ² • 435 lbs. / Acre | 5 lbs. / 1000 Ft ² • 218 lbs. / Acre |
| Water in thoroughly after application to help speed up breakdown. | |
| For MSDS Information and spreader settings visit www.griggbros.com | |

Guaranteed Analysis:

| | |
|---|-------|
| Total Nitrogen (N)..... | 10.0% |
| 1.10% water soluble organic nitrogen | |
| 8.90% water insoluble organic nitrogen | |
| Available Phosphate (P ₂ O ₅)..... | 2.0% |
| Soluble Potash (K ₂ O)..... | 4.0% |
| Calcium (Ca)..... | 4.0% |
| Sulfur (S)..... | 2.0% |
| 2.0% Combined Sulfur (S) | |

Derived from blood meal, soy protein, feather meal, bone meal, sulfate of potash, kelp (*Ascophyllum nodosum*). F1194

Information regarding the contents and levels of metals in this product is available on the Internet at:
<http://www.aapfco.org/metals.htm>

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PRODUCTS YOU CAN TRUST!



Aerator™

38% Calcium

Anti-compaction formula

- **AERATOR™ 38% CALCIUM** is a unique formulation using Signal Molecule Technology™ and calcium nutrition to establish a biologically active soil.
- **AERATOR™ 38% CALCIUM** initiates a rise of the population of beneficial microbes that are responsible for repairing and building soil aggregates. **AERATOR™** can be used to break up compacted soils. It is ideal for applications on heavily used tees, cart-paths, or areas of standing water.
- **AERATOR™ 38% CALCIUM** contains all natural "Signaling Molecules" (glycoprotein elicitors) from Bio-Start, Inc. **GreenSpec™** signaling molecules target beneficial fungi. These fungi produce gum and thread-like substances in the soil. Growing fungal threads split open compacted soil particles to bring in air, and just as important, let out gasses produced by growing roots. They attach themselves to growing roots and extend the availability of nutrients. Golf course turf grasses naturally want more beneficial fungi in their soils. Beneficial fungi continually produce signaling molecules in the form of root exudates to increase the fungal populations however, chemicals and heavy play disrupt these signals. **GreenSpec™** signaling molecules are very similar to the signaling molecules produced by a plant's root.
- **AERATOR™ 38% CALCIUM** granules are dust-free, spread evenly and dissolve quickly.

| GUARANTEED ANALYSIS | |
|--|-------|
| Calcium (Ca)..... | 38.0% |
| Derived from calcium carbonate (CaCO ₃). | |
| ALSO CONTAINS NON PLANT FOOD INGREDIENT: | |
| 0.18% hepta-beta-glucoside elicitor | |
| 0.16% chitin oligosaccharide elicitor | |

AERATOR™

38% CALCIUM

| <table border="1"> <thead> <tr> <th colspan="2">Guaranteed Analysis:</th> </tr> </thead> <tbody> <tr> <td>Calcium (Ca)</td> <td>38.0%</td> </tr> <tr> <td colspan="2">Derived from calcium carbonate (CaCO₃).</td> </tr> <tr> <td colspan="2" style="text-align: right;">F1194</td> </tr> </tbody> </table> <p>Calcium Carbonate Equivalent = 98% ALSO CONTAINS NON PLANT FOOD INGREDIENT: 0.18% hepta-beta-glucoside elicitor 0.16% chitin oligosaccharide elicitor</p> <p style="font-size: small;">Information regarding the contents and levels of metals in this product is available on the Internet at: http://www.aapfco.org/metals.htm</p> | Guaranteed Analysis: | | Calcium (Ca) | 38.0% | Derived from calcium carbonate (CaCO ₃). | | F1194 | | <table border="1"> <thead> <tr> <th>SUGGESTED GRANULAR APPLICATION RATES</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">10 lbs. / 1000 Ft²</td> </tr> <tr> <td style="font-size: x-small;">Water in thoroughly after application to help speed up breakdown.</td> </tr> <tr> <td style="font-size: x-small;">For MSDS Information and spreader settings visit www.griggbros.com</td> </tr> <tr> <td style="font-size: x-small;">Minimum application, two times per year, early spring and late fall. Additional applications will accelerate reductions seen in compacted soil.</td> </tr> </tbody> </table> <p style="text-align: right;">Manufactured exclusively for: Grigg Brothers 949 S. 1050 E. • P.O. Box 128 Albion, ID 83311 U.S. Toll Free: 1-888-246-8873 www.griggbros.com</p> <p style="text-align: center; background-color: green; color: white; padding: 5px;">PRODUCTS YOU CAN TRUST!</p> | SUGGESTED GRANULAR APPLICATION RATES | 10 lbs. / 1000 Ft² | Water in thoroughly after application to help speed up breakdown. | For MSDS Information and spreader settings visit www.griggbros.com | Minimum application, two times per year, early spring and late fall. Additional applications will accelerate reductions seen in compacted soil. |
|---|----------------------|--|--------------|-------|--|--|-------|--|---|--------------------------------------|--------------------------------------|---|---|---|
| Guaranteed Analysis: | | | | | | | | | | | | | | |
| Calcium (Ca) | 38.0% | | | | | | | | | | | | | |
| Derived from calcium carbonate (CaCO ₃). | | | | | | | | | | | | | | |
| F1194 | | | | | | | | | | | | | | |
| SUGGESTED GRANULAR APPLICATION RATES | | | | | | | | | | | | | | |
| 10 lbs. / 1000 Ft² | | | | | | | | | | | | | | |
| Water in thoroughly after application to help speed up breakdown. | | | | | | | | | | | | | | |
| For MSDS Information and spreader settings visit www.griggbros.com | | | | | | | | | | | | | | |
| Minimum application, two times per year, early spring and late fall. Additional applications will accelerate reductions seen in compacted soil. | | | | | | | | | | | | | | |

LET YOUR SOIL BREATHE AGAIN!

C K-Balance™ NEW PRODUCT

0-0-24

| GUARANTEED ANALYSIS | |
|--|-------|
| Soluble Potash (K ₂ O)..... | 24.0% |
| Calcium (Ca) | 18.0% |
| Sulfur (S)..... | 8.0% |
| 8% Combined Sulfur | |
| Derived from sulfate of potash, calcium carbonate (CaCO ₃) | |

- **C K-Balance™** combines Calcium and Potassium in a small "greens grade" granule to strengthen and protect turf from environmental stresses and heavy use.
- **C K-Balance™** is one-half micronized limestone ground to a tiny particle size that can pass through 200 mesh. Calcium, unlike some minerals that can be transported by soil microbes, tends to stay put when applied. It is important that the calcium particles are very small in order to be deposited close to the feeder roots at application.

C K-Balance™

0-0-24

18% CALCIUM • 8% SULFUR

| <table border="1"> <thead> <tr> <th colspan="2">Guaranteed Analysis</th> </tr> </thead> <tbody> <tr> <td>Soluble Potash (K₂O).....</td> <td>24.0%</td> </tr> <tr> <td>Calcium (Ca)</td> <td>18.0%</td> </tr> <tr> <td>Sulfur (S).....</td> <td>8.0%</td> </tr> <tr> <td colspan="2">8% Combined Sulfur</td> </tr> <tr> <td colspan="2">Derived from sulfate of potash, calcium carbonate (CaCO₃)</td> </tr> <tr> <td colspan="2" style="text-align: right;">F1194</td> </tr> </tbody> </table> <p style="font-size: x-small;">Calcium Carbonate Equivalent = 48% • Mesh size nutrients exceed 200 mesh.</p> <p>ALSO CONTAINS NON PLANT FOOD INGREDIENT: 0.18% hepta-beta-glucoside elicitor 0.16% chitin oligosaccharide elicitor</p> <p style="font-size: x-small;">Information regarding the contents and levels of metals in this product is available on the Internet at: http://www.aapfco.org/metals.htm</p> | Guaranteed Analysis | | Soluble Potash (K ₂ O)..... | 24.0% | Calcium (Ca) | 18.0% | Sulfur (S)..... | 8.0% | 8% Combined Sulfur | | Derived from sulfate of potash, calcium carbonate (CaCO ₃) | | F1194 | | <table border="1"> <thead> <tr> <th>SUGGESTED GRANULAR APPLICATION RATES</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">10 lbs. / 1000 Ft²</td> </tr> <tr> <td style="font-size: x-small;">Water in thoroughly after application to help speed up breakdown.</td> </tr> <tr> <td style="font-size: x-small;">For MSDS Information and spreader settings visit www.griggbros.com</td> </tr> </tbody> </table> <p style="text-align: right;">Manufactured exclusively for: Grigg Brothers 949 S. 1050 E. • P.O. Box 128 Albion, ID 83311 U.S. Toll Free: 1-888-246-8873 www.griggbros.com</p> <p style="text-align: center; background-color: green; color: white; padding: 5px;">PRODUCTS YOU CAN TRUST!</p> | SUGGESTED GRANULAR APPLICATION RATES | 10 lbs. / 1000 Ft² | Water in thoroughly after application to help speed up breakdown. | For MSDS Information and spreader settings visit www.griggbros.com |
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- **C K-Balance™** is one-half sulfate of potash in its purest, natural form. It is harvested from solar evaporation ponds from the waters of the Great Salt Lake in Utah.

Traditional mined calcium and potassium fertilizers contain heavy metals in quantities that are unacceptable for GreenSpec granular products. Our calcium and potassium is formulated to minimize heavy metal contamination.

Z-mendit™

Soil Amendment

- **Z-mendit™** is a zeolite (clinoptilolite), a natural occurring mineral with microscopic pores. Researchers have reported benefits in water use efficiency, environmental leachate reductions and plant fertility.

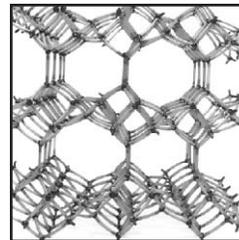
- **Z-mendit™** has a bulk density of 60 lb/cu ft and carries a very high CEC (165 meq/100 grams) so only 8% to 10% in the root zone will increase your nutrient reservoir substantially to better facilitate nutrient availability and plant utilization in the root zone.

- **Z-mendit™** allows you to load the nutrients in balance where you need them... in the root zone. This by extension will assist efforts in offsetting the detriment constantly imposed by deteriorating water quality and the use of re-claimed effluent.

- **Z-mendit™** is naturally light green in color and is ideal for top-dressing after aerification or for use with a DryJect® machine. This will further compliment and enhance your cultural practices by improving air and water movement, and help to prevent surface organic layers from sealing and restricting these vital functions as well as allowing for optimum gas exchange.

GUARANTEED ANALYSIS

| | |
|------------------------------------|------|
| Soil Amending Ingredients | |
| Zeolite (Clinoptilolite) Ore | 100% |



DryJect is a registered trademark of DryJect, LLC



Z-mendit™

SOIL AMENDMENT

Guaranteed Analysis

| | |
|------------------------------|------|
| Soil Amending Ingredients | |
| Zeolite (Clinoptilolite) Ore | 100% |

Applications for Z-mendit™

Z-mendit™ is a soil amendment that, when added to a root zone improves plant performance. It is a clinoptilolite and when added to other growth media enhances its performance.

Use for sports turf, golf greens & tees, in greenhouse-nursery mixes, in garden soils, planting beds and containers, for landscaping, roof gardens, transplants, and horticultural crops.

Particularly suitable for sandy and coarse textured soils.

DIRECTIONS FOR USE:

Turf Top Dressing:

Apply Z-mendit™ to existing turf. Best results will be obtained if Z-mendit™ is worked into the root zone via aerification, drill and fill, Dry-jecting™ or other method. Normal application is 275 to 500 lbs per 1000 Ft² (120-245 kg/100 M²) with aerification or other procedure to enhance placement into the root zone.

DIRECTIONS FOR USE:

Turf - New Construction:

Z-mendit™ will enhance establishment of seed, sprigs or sod. Apply at least 5% by volume to top 6" (15 cm). Recommended rate is 10% - 15% by volume. Blend with sand prior to placement or lay out a grid of known size and apply the appropriate amount to each grid. Blend with rake or rototiller then proceed with seeding, sprigging or sodding.

Divot Mix:

Mix Z-mendit™ with divot mix for a 50% ZeoPro™ 50% sand ratio to enhance germination and moisture and nutrient retention capabilities.

Grigg Brothers

P.O. Box 128 Albion, ID 83311

U.S. Toll Free: 1-888-246-8873

www.griggbros.com

PRODUCTS YOU CAN TRUST!



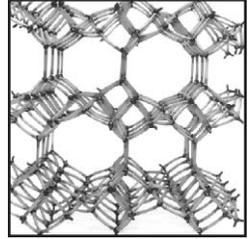
ZeoPro™

Soil Amendment

- **ZeoPro™** is a zeolite (clinoptilolite), a natural occurring mineral with microscopic pores, impregnated with a nutrient package developed cooperatively with NASA. Researchers have reported benefits in water use efficiency, environmental leachate reductions and plant fertility.
- **ZeoPro™** is produced under patents and exclusive license from NASA (U.S. Patent 5,433,766 slow release fertilizer - synthetic apatite and U.S. Patent 5,451,242 active synthetic soil containing a combination of nutrient ion exchanged zeolite plus synthetic apatite) and utilized for their root zone mixes. After years of research, NASA found that its' high cation exchange capacity (CEC), high porosity, favorable moisture retention, and rigid structure make it a superior plant growth medium.
- **ZeoPro™** has been studied for more than 10 years and has been found (USGA, Colorado State University, Cornell, Rutgers, etc.) to establish greens twice as fast as compared to any other treatment (Golf Course Management – February 1999) in fact, the lead researcher at Cornell stated he had not observed so rapid an establishment rate in any other experiment (*Petrovic, A.M. 1998 interim report on ZeoPro research. Department of Floriculture and Ornamental Horticulture, Cornell University, Ithica, New York*).
- **ZeoPro™** has a bulk density of 50 lb/cu ft and a high CEC (100 meq/100 grams) with only 10% to 15% by volume needed in the root zone mix to increase your nutrient reservoir substantially and better facilitate plant utilization in the root zone.
- **ZeoPro™** stimulates the quick establishment of greens so when the turn around time of a greens seeding or renovation is critical, the use of ZeoPro' can make the difference between opening on time or early vs. a delay in play and operating revenue.
- **ZeoPro™** is off-white in color and is already charged with a synthetic apatite so essential nutrients making this an ideal product for grow-in and turf establishment. Numerous conclusive studies have been published over the years that validate this claim. The unique inter-action between the ZeoPro' and plant roots facilitates an increase in actual nutrient availability as the plant needs them.
- **ZeoPro™** has outperformed calcined clay materials in research trials maintaining a higher establishment and quality rating throughout the establishment and grow-in period (*Honig, J.A., J.A. Murphy and S.L. Murphy . 1998. Establishment of creeping bentgrass as affected by root zone mixtures and microenvironment. P 142 In: Agronomy abstracts. American Society of Agronomy, Madison Wisconsin. – Murphy, J., S. Murphy, J. Honig , H. Motto, B. Clarke, R. Tate and E. Gaulin. 1998. Assessing root zone mixes for putting greens over time under two environmental conditions. Progress report to the USGA. Rutgers University, Cook College, New Brunswick, New Jersey*).

GUARANTEED ANALYSIS

| | |
|------------------------------------|-------|
| Soil Amending Ingredients | |
| Zeolite (Clinoptilolite) Ore | 90.0% |
| Total Other Ingredients | 10.0% |



ZeoPro™

SOIL AMENDMENT

Guaranteed Analysis:

| | |
|-----------------------------------|-------|
| Soil Amending Ingredients | |
| Zeolite (Clinoptilolite) Ore..... | 90.0% |
| Total Other Ingredients | 10.0% |

F1194

Why use ZeoPro™?

ZeoPro™ is a soil amendment that, when added to a root zone improves plant performance. It is a zeoponic material developed by NASA as a growth media already charged with essential nutrients for long term space travel. It can be added to any growth medium to amend the root zone and improve its performance as a growth medium.

DIRECTIONS FOR USE:

Apply ZeoPro™ to any root zone or growth medium. Generally apply 10% by volume to the top 4"-6" of the root zone. Mix the ZeoPro™ into the other material to create as much blending as practicable. When applying to existing turf as a topdressing best results will be obtained if the material is worked into the root zone via aerification, drill and fill, DryJect or other method

Information regarding the contents and levels of metals in this product is available on the Internet at:
<http://www.aapfco.org/metals.htm>

Manufactured exclusively for:

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PRODUCTS YOU CAN TRUST!

F.A.Q.

Answers to the following FAQ's are easily obtained by logging on to the Grigg Brothers website at www.griggbros.com. Or call the National Headquarters at (888) 246-8873.



MORE FREQUENTLY ASKED QUESTIONS (FAQ):

Q: Do you only manufacture fertilizers for golf courses?

A: No. GreenSpec™ fertilizers are used on Sports Fields, Parks and Landscapes. We make granular fertilizers under specification for Professional Landscape Architects. We also formulate construction mixes.

Q: Do GreenSpec™ granulars need to be watered in after application?

A: Yes. Water in immediately after application to dissolve the nutrients down into the root zone and to guard against burning.

Q: It's inconvenient to water in immediately after application. Can I wait a while?

A: We always recommend watering after application. The 10-2-4 All Natural Organic is a safe, slow release, non-burning fertilizer. Watering it in breaks up and dissolves the granules avoiding mower pick-up.

Burn Potential: There are two main contributors to burning turf grass - osmotic pressure (salt burn) and stress (high heat, extensive play).

Osmotic Pressure: 16-4-8 Turf Rally™, 7-7-7 Seven Iron™ and 8-4-16 Endurance™ have 1/4 the burn potential of a synthetic NPK fertilizer. 10-2-4 All Natural Organic is a non-burning formula.

Stress: All types of turf grass can reach a stress threshold from high heat and extensive cart and foot traffic so that applications of ANY types of nutrients or plant protection products can cause burning.

Q: Are GreenSpec™ granular fertilizers safe around children, pets and animals?

A: Keep out of reach of children! GreenSpec™ granular fertilizers are generally safe and easy to handle. They do not require warnings for toxic or carcinogenic material levels. Consult your MSDS sheets.

Q: GreenSpec™ granular fertilizers contain soil improvement products, "signaling molecules" and humic acid; are these improvement products compatible with other types of fertilizers, and plant protection products?

A: Yes. Completely compatible.

Q: Where can I learn more about the "signaling molecules" that are used to reduce soil compaction?

A: These come from Bio-Start, Ltd, Auckland, New Zealand. www.biostart.co.nz

Q: I am tired of being approached by salesmen touting humic acid products while making exorbitant claims. These "cure-all" claims have made me question the efficacy of these products. Is your the humic acid different?

A: Yes. This is the only type of humic acid that is backed by scientific studies.

Q: I noticed that GreenSpec™ granular fertilizers contain iron. Is staining a problem around sidewalks, monuments or water features?

A: GreenSpec™ granular fertilizers CAN stain porous stone and concrete materials, but it takes more than just contact with the products. A crushing pressure would be necessary. For best results, SWEEP fertilizer off all surfaces prior to watering and heavy traffic.

GRANULAR APPLICATION RATES:

Individual product sheets for spreader settings and MSDS information available at: www.griggbros.com

7-7-7 SEVEN IRON™

FAIRWAYS: Apply 10 lbs / 1000 Ft² • 435 lbs per acre

GREENS: Apply 8 lbs / 1000 Ft²

Water in thoroughly after application to help speed up breakdown.

16-4-8 TURF RALLY™

FAIRWAYS: Apply 6.25 lbs / 1000 Ft² • 272 lbs per acre

GREENS: Apply 1/2 rates – 3.12 lbs / 1000 Ft²

Water in thoroughly after application to help speed up breakdown.

8-4-16 ENDURANCE™

FAIRWAYS: Apply 6.25 lbs / 1000 Ft² • 272 lbs per acre

GREENS: Apply 1/2 rates – 3.12 lbs / 1000 Ft²

Water in thoroughly after application to help speed up breakdown.

10-2-4 ALL NATURAL ORGANIC

FAIRWAYS: Apply 10 lbs / 1000 Ft² • 435 lbs per acre

GREENS: Apply full rates (10 lbs / 1000 Ft²) • Apply 1/2 rates (5 lbs / 1000 Ft²)

Water in thoroughly after application to help speed up breakdown.

AERATOR™ 38% Calcium

FAIRWAYS: Apply 10 lbs / 1000 Ft² • 435 lbs per acre

GREENS: Apply full rates (10 lbs / 1000 Ft²) • Apply 1/2 rates (5 lbs / 1000 Ft²)

Water in thoroughly after application to help speed up breakdown.

0-0-24 C K-BALANCE™

FAIRWAYS: Apply 10 lbs / 1000 Ft² • 435 lbs per acre

GREENS: Apply full rates (10 lbs / 1000 Ft²) • Apply 1/2 rates (5 lbs / 1000 Ft²)

Water in thoroughly after application to help speed up breakdown.

Z-MENDIT™

Rates will vary widely depending on needs and method of application, please discuss it with your sales representative or contact Grigg Brothers for assistance.

ZEOPRO™

Rates will vary widely depending on needs and method of application, please discuss it with your sales representative or contact Grigg Brothers for assistance.

True Soil Improvements

(Reducing compaction, making space for more air and water.)

Check your progress:

(Beginning 30 - 45 days after initial application)

- Apply and observe Green Spec granular products on hard, compacted soils and areas of standing water.
- Use a penetrometer to monitor softening of the soil.
- Measure moisture retention.
- Use a core puller to monitor the decomposition of visual organic material (trash) in the soil.
- Use an eyepiece to count new growing feeder root sights.
- Use a microscope or learn the skill of using an eyepiece to count additional mycorrhizal fungi relationships.
- Observe overall increases in root mass structure.
- Measure thatch.

GreenSpec™

Professional Use Granular Fertilizers

Exceptional nutrient uptake
Real improvements in soil structure

All homogeneous granules are designed to penetrate tight, dense grasses and dissolve before mower pickup.

GreenSpec Proprietary Protein Technology

7-7-7 Seven Iron™

- ❖ Extreme, dark green promoting formula
- ❖ All 7's – for mineral depleted soils 7% N, 7% P, 7% K, 7% Ca, 7% S, 7% Fe
- ❖ Gentle enough for warm weather

16-4-8 Turf Rally™

- ❖ Long lasting color improvement for fairways, tees and greens
- ❖ Promotes growth without excessive clippings
- ❖ Conditions and improves depleted and compacted soils

8-4-16 Endurance™

- ❖ Long lasting color improvement for fairways, tees and greens
- ❖ Revitalize and strengthen turf
- ❖ GreenSpec premier winterizer

10-2-4 All Natural Organic

- ❖ Exceptional solubility in an All Natural Organic
- ❖ Faster visual response
- ❖ Conditions and improves depleted and compacted soils

Aerator™ 38% Calcium™

- ❖ Remedy compaction and anaerobic soil conditions
- ❖ Improve moisture holding capacity
- ❖ Compost thatch

C K-Balance™

- ❖ Strengthen and protect turf from environmental stresses and heavy use.
- ❖ Remedy compaction and anaerobic soil conditions.
- ❖ Deposit small micronized calcium particles and pure, natural potash close to the feeder roots.

Z-mendit™

- ❖ A zeolite (clinoptilolite), a natural occurring mineral with microscopic pores.
- ❖ Increases your nutrient reservoir substantially to better facilitate nutrient availability and plant utilization in the root zone.
- ❖ Allows you to load the nutrients in balance where you need them...

ZeoPro™

- ❖ Accommodates the quick establishment of greens
- ❖ Already charged with a synthetic apatite so essential nutrients are in place making this an ideal product for grow-in and turf establishment.
- ❖ Has outperformed calcined clay materials in research trials maintaining a higher establishment and quality rating throughout the establishment and grow-in period

GRIGG BROTHERS

P.O. BOX 128 • ALBION, IDAHO 83311

For a Distributor Near You Call:

1-888-246-8873

or find us on the web at www.griggbros.com

