

# roots®

# Healthy Start®

## 3-4-3 Natural Granular Fertilizer

- Use for seeding, garden and flower beds, bulbs, trees and shrubs
- Contains beneficial rhizosphere bacteria

**ROOTS® Healthy Start® 3-4-3** is formulated for general use applications. It contains NPK fertility derived from natural sources, and includes beneficial rhizosphere bacteria to boost biological soil fertility. It also contains humic acids, which may aid in the uptake of mineral nutrients by plants. Roots Healthy Start 3-4-3 is manufactured as an insoluble granular fertilizer that releases nutrients as it biodegrades. It is used to provide rich organic matter and active rhizosphere bacteria to depleted soils.

**DIRECTIONS FOR USE:**

**Seed/Sod Installation:** Broadcast or spread one 25 pound bag per 2500 square feet, then seed or lay sod.

**Soil Prep for Gardens and Flower Beds:** Apply 25 pounds per 1000 square feet. In very poor soil, double the rate. Rototill into the upper 2 to 4 inches before planting.

**Bulbs or Sprigs:** Add 1 teaspoon per plant and mix with soil in planting hole.

**Potting Mix:** Mix into potting soil at a rate of 25 pounds per cubic yard.

**Potted Plants:** 1/4 pound per 1 gallon container.

**Top Dressing:** Apply one 25 pound bag per 2000 square feet.

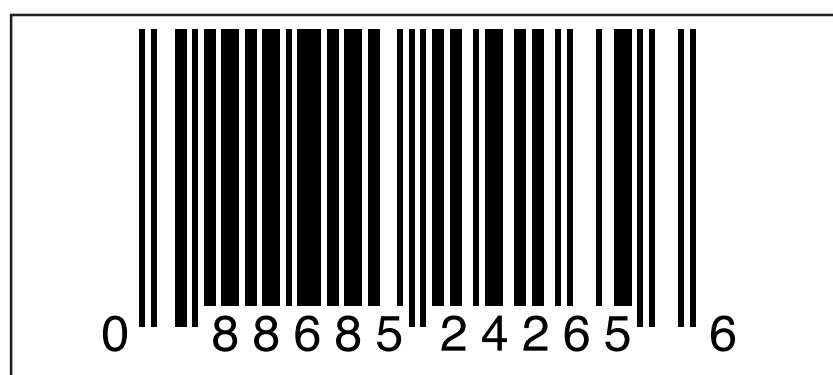
**Established Trees and Shrubs:** Broadcast 2 pounds per 100 square feet over soil or surface mulch.

**Planting Trees and Shrubs:** Mix into the backfill around the root zone when planting, following the rate chart below.

APPLICATION RATES		
1 gallon plant	1 cup or 1/4 pound	100 plants per 25-Lb bag
5 gallon plant	2 cups or 1/2 pound	50 plants per 25-Lb bag
15 gallon plant	4 cups or 1 pound	25 plants per 25-Lb bag
24 inch root ball	6 cups or 1 1/2 pounds	16 plants per 25-Lb bag
36 inch root ball	10 cups or 2 1/2 pounds	10 plants per 25-Lb bag
42 inch root ball	12 cups or 3 pounds	8 plants per 25-Lb bag
54 inch root ball	16 cups or 4 pounds	6 plants per 25-Lb bag
72 inch root ball	20 cups or 5 pounds	5 plants per 25-Lb bag
Larger sizes	1/2 pound	per inch of trunk diameter

SPREADER SETTINGS						
Rate per 1000 FT <sup>2</sup>	Earthway Drop Spreader	Earthway Broadcast Spreader	Scotts Drop AccuGreen	Scotts Drop Precision Green	Speedy Green	AccuPro 2000
50 pounds	23 (4x)	28 (8x)	18 (4x)	17 (4x)	18 (5x)	Z (6x)
25 pounds	23 (2x)	28 (4x)	18 (2x)	17 (2x)	10 1/2 (3x)	W (3x)
Avg. width of spread	Overlap	13 feet	Overlap	Overlap	5 feet	10 feet
	Wheels		Wheels	Wheels		Cone 8

Note: 2x means 2 passes



G/19

Expiration date:

For technical assistance and information about our products visit [www.LebanonTurf.com](http://www.LebanonTurf.com)

GUARANTEED ANALYSIS	
Total Nitrogen (N) .....	3%
2.8% Water Insoluble Nitrogen*	
0.2% Ammoniacal Nitrogen	
Available Phosphate (P <sub>2</sub> O <sub>5</sub> ) .....	4%
Soluble Potash (K <sub>2</sub> O) .....	3%
Calcium (Ca) .....	4%
Derived from: Meat and Bone Meal, Feather Meal, Soft Rock Phosphate, Kelp Meal, Sulfate of Potash.	
*2.8% Slowly available nitrogen from meat and bone meal, feather meal.	
ALSO CONTAINS NON PLANT FOOD INGREDIENTS	
SOIL/PLANT AMENDING INGREDIENTS	
Rhizosphere Bacteria.....	400,000 cfu/g
95,000 cfu/g <i>Bacillus licheniformis</i>	
95,000 cfu/g <i>Bacillus megaterium</i>	
10,000 cfu/g <i>Bacillus polymyxa</i>	
95,000 cfu/g <i>Bacillus pumilus</i>	
95,000 cfu/g <i>Bacillus subtilis</i>	
10,000 cfu/g <i>Paenibacillus azotofixans</i>	
Humic acids (derived from Leonardite).....	2.5%
INERT INGREDIENTS .....	97.5%
94.9% Fertilizer Ingredients	
2.5% Leonardite (other than humic acids)	
0.1% Maltodextrin	
	F699

Information regarding the contents and levels of metals in this product is available on the internet at <http://www.regulatory-info-lebsea.com>

**CONTAINS NO MANURE, SEWAGE OR SLUDGE INGREDIENTS**

Keep out of reach of children  
Precautionary Statements for disposal - Dispose in accordance with all federal, state and local regulations.

**STORAGE:** Store at temperatures between 50° and 90° F in a dry location.

Use in accordance with recommendations of a qualified individual or institution, such as, but not limited to a certified crop advisor, agronomist, university crop extension publication, or apply according to recommendations in your approved nutrient management plan.

Do not apply near water, storm drains or drainage ditches. Do not apply if heavy rain is expected. Apply this product only to your lawn or garden, and sweep any product that lands on the driveway, sidewalk, or street back on to your lawn or garden.

**WARRANTY**

**NOTE** To the extent consistent with applicable law, Buyer assumes all responsibility for safety and performance if this product is not used according to the directions.

**Apply only to actively growing turf. Do not exceed 3.2 lbs. of total nitrogen per 1,000 sq. ft. annually.**

**In Maryland, New Jersey, New York and Virginia:** This fertilizer contains phosphorus and may not be used for lawn maintenance on turf in the states of Maryland, New Jersey, New York or Virginia except when

- 1) Providing nutrients to specific soils and target vegetation as determined to be necessary in accordance with a soil test that was conducted by a laboratory\* performed no more than 3 years before the application
- 2) Establishing vegetation for the first time, such as after land disturbance, provided the application is conducted in accordance with the recommended application rates established by the State
- 3) Re-establishing or repairing a turf area.

\*In Maryland, the soil testing laboratory must be identified under Section 8-803.7 of the Agriculture Article, Annotated Code of Maryland.

**In New Hampshire:** This fertilizer contains phosphate. In New Hampshire, phosphate fertilizers may only be used for turf maintenance in golf courses, parks, athletic fields, and sod farms.



Manufactured by:  
**Lebanon Seaboard Corporation**  
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800-253-0628 • (717) 273-1685  
Made in the U.S.A.  
[www.LebanonTurf.com](http://www.LebanonTurf.com)

**Net Weight / Peso Neto 25 lbs (11.3 kg)  
Covers up to 3,125 Sq. Ft. (3,125 pies<sup>2</sup>)**

Not labeled for use on food crop sites.