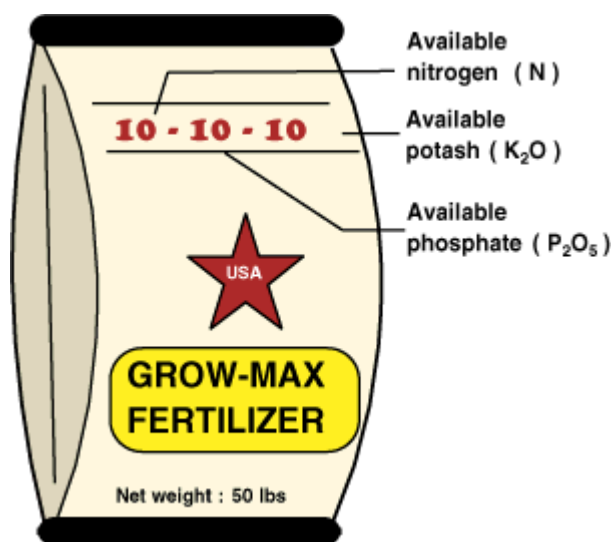


# A Homeowner's Guide to Fertilizer

## Understanding the Fertilizer Label



All fertilizer labels have three bold numbers. The first number is the amount of nitrogen (N), the second number is the amount of phosphate ( $P_2O_5$ ) and the third number is the amount of potash ( $K_2O$ ). These three numbers represent the primary nutrients (nitrogen(N) - phosphorus(P) - potassium(K)).

This label, known as the fertilizer grade, is a national standard.

A bag of 10-10-10 fertilizer contains 10 percent nitrogen, 10 percent phosphate and 10 percent potash.

Fertilizer grades are made by mixing two or more nutrient sources together to form a blend, that is why they are called "mixed fertilizers." Blends contain particles of more than one color. Manufacturers produce different grades for the many types of plants.

You can also get fertilizers that contain only one of each of the primary nutrients. Nitrogen sources include ammonium nitrate (33.5-0-0), urea nitrogen (46-0-0), sodium nitrate (16-0-0) and liquid nitrogen (30-0-0). Phosphorus is provided as 0-46-0 and potash as 0-0-60 or 0-0-50.

## Calculating Nutrient Content

To calculate the pounds of nitrogen in a **50-lb bag of 10-10-10 fertilizer**, multiply 50 by 0.10. Do the same for calculating the amounts of phosphate and potash. A 50-lb bag of 10-10-10 contains a total of 15 lbs of nutrients: 5 lbs nitrogen, 5 lbs phosphate and 5 lbs potash. The remaining weight is filler, usually sand or granular limestone.

Another example:

### 50-lb. bag of 8-0-24 fertilizer

1. To calculate the pounds of nitrogen: Multiply 50 by .08, which equals 4.
2. To calculate the pounds of phosphate: There is no phosphate in this bag of fertilizer.
3. To calculate the pounds of potash: Multiply 50 by .24, which equals 12.

A 50 pound bag of 8-0-24 fertilizer contains a total of 16 lbs of nutrients: 4 lbs nitrogen, 0 lbs phosphate, and 12 lbs potash. This would leave us with 34 lbs of filler.

## Selecting a Fertilizer Grade

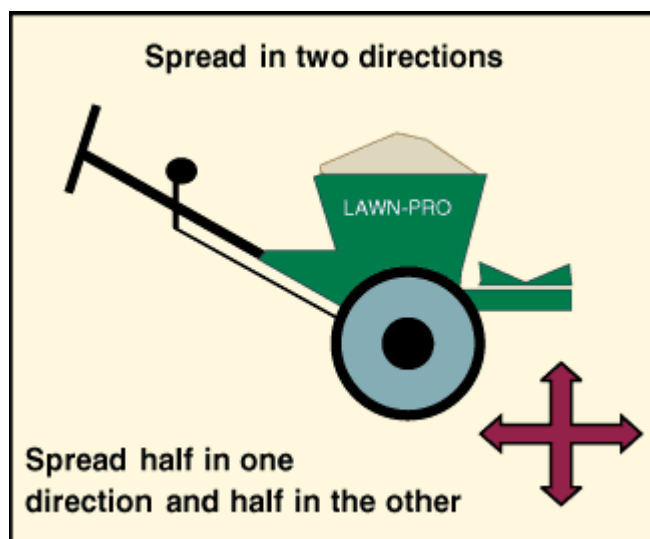
The best way to select a fertilizer grade is to have your [soil tested](#). The [soil test report](#) will recommend a fertilizer grade for your use. The report also comes with a management note that provides guidelines for supplementing nitrogen for lawn and garden crops.

**Typical grades recommended for lawns and gardens include:**

- 5-10-5
- 5-10-10
- 10-10-10
- 8-0-24
- 6-6-18

## Spreading Fertilizer

Have you ever seen a lawn that looked like it had different colored stripes. This was probably caused by spreading fertilizers the wrong way. To make sure that the color and growth of your plants are the same, fertilizers must be spread evenly. The most popular types of fertilizer spreaders are the drop spreader and the cyclone spreader. Cyclone spreaders generally provide the best results. Make sure when you spread the fertilizer that you overlap your spread pattern by Applying half the material in one direction and the remainder in the opposite direction. Break up any clumps so that the fertilizer won't get clogged in the spreader.



If you have questions regarding which grade of fertilizer to use or how much fertilizer to use, contact your local agricultural advisor or the [Agronomic Division](#) in Raleigh, NC.



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