# Use the Fertilizer Label to Calculate Appropriate Rates and Applications







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**Grade (N-P-K-Mg):** the percentage (%) total nitrogen (N), available phosphate expressed as  $P_2O_5$  and soluble potassium expressed as  $K_2O$ . Sometimes, a palm fertilizer label will express magnesium (Mg) as the fourth number in the grade.

20-0-10

#### **GUARANTEED ANALYSIS**

TOTAL NITROGEN (N)......20.00%

20.00% Urea Nitrogen\* Guaranteed 1.00% Water Soluble Magnesium (Mg) Analysis: the **SULFUR (S) Total**......8.35% 6.25% Free Sulfur (S) percentage of 2.10% Combined Sulfur (S) plant nutrients IRON (Fe) Total......6.00% claimed to be 0.06% Water Soluble Iron (Fe) present in a MANGANESE (Mn) Total......1.00% fertilizer. 0.14% Water Soluble Manganese (Mn) **DERIVED FROM:** Polymer Coated Sulfur Coated Urea, Muriate of Potash, Iron Sucrate, Manganese Sucrate, Sulfate of Potash-Magnesia

\*14.00% Slowly Available Urea Nitrogen from Polymer Coated Sulfur Coated Urea.

Derived From: This is a statement of the actual source materials for the primary or secondary plant nutrients guaranteed. When one or more slow- or controlled-release nutrients are claimed or advertised, the guarantees for such nutrients shall be shown as a footnote (\*) following the listing of source materials and are expressed as percent of the actual nutrient.

#### SLOW-RELEASE NITROGEN (SRN) PERCENTAGE FORMULA

Determine the SRN percentage using the label information (example below)

XAMPLE

\*14.00%

Nitrogen in a form which delays its availability to the plant 20%

\_\_\_\_\_\_.7 or 70% SRN

Total N according to the Guaranteed Analysis

If the SRN is 30% or more, it is considered a slow-release fertilizer product.

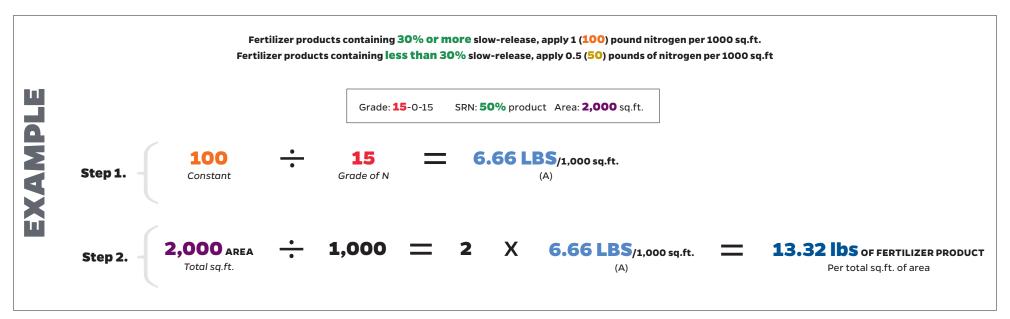
If the SRN is below 30%, it is considered a quick-release fertilizer product.

## EXERCISE 1. Determine the slow-release nitrogen (SRN) using the following information.

Fertilizer Label Information	Determine SRN	
Problem 1 Grade: 24-0-11 Derived from: *6.60% Slowly Available Urea	÷ <b>=</b> SRN	
Problem 2 Grade: 8-0-12 Derived from: *5.60% Slowly Available Polymer Coated Sulfur Coated Urea	÷srn	
Problem 3 Grade: 15-0-15 Derived from: *4.50% Slowly Available Urea Nitrogen from sulfur Coated Urea	÷srn	

### **NITROGEN TO POUNDS OF ACTUAL FERTILIZER FORMULA**

Calculate how much fertilizer to use (example below)



EXERCISE 2. Determine the appropriate fertilizer rate based on pounds of nitrogen per area.

Problem 1	100 ÷ GRADE OF N = LBS/1,000 sq.ft.
Grade: <b>24</b> -0-11	(A)
SRN: <b>70%</b>	AREA ÷ 1,000 = X LBS/1,000 sq.ft. = LBS OF FERTILIZER PRODU
Area: <b>4,000</b> sq.ft	Total sq.ft. (A) Per total sq.ft. of area
Problem 2	100 ÷ GRADE OF N == LBS/1,000 sq.ft.
Grade: 22-2-11	(A)
SRN: <b>85%</b>	AREA ÷ 1,000 = X LBS/1,000 sq.ft. = LBS OF FERTILIZER PRODU
Area: <b>5,500</b> sq.ft	Total sq.ft. Per total sq.ft. of area
Problem 3	50 ÷ GRADE OF N = LBS/1,000 sq.ft.
Grade: 8-0-12	(A)
SRN: <b>24%</b>	AREA ÷ 1,000 =XLBS/1,000 sq.ft. =LBS OF FERTILIZER PRODU
Area: <b>3,500</b> sq.ft	Total sq.ft. (A) Per total sq.ft. of area
Problem 4	50 ÷ GRADE OF N = LBS/1,000 sq.ft.
Grade: 14-0-26	SO : GRADE OF N = EB3/1,000 sq.it.
SRN: <b>14%</b>	AREA ÷ 1,000 = X LBS/1,000 sq.ft. = LBS OF FERTILIZER PRODU
Area: <b>6,000</b> sq.ft	Total sq.ft. (A)  Per total sq.ft. of area  Per total sq.ft. of area