1st number of the analysis - Nitrogen

2nd number of the analysis - Phosphorous

3rd number of the analysis - Potash

Remember that a fertilizer analysis is given in percentages. Take 10-10-10 for example. If you have a 50 lb. bag of 10-10-10, you will have 5 lbs. of nitrogen, 5 lbs. of phosphorus and 5 lbs. of potash in the bag. 50 lbs. times 10% (.10) = 5 lbs.

Using 18-18-18, take 50 lbs. times 18% (.18) = 9 lbs. each, nitrogen, phosphorus and potash in the bag.

Square Feet per acre: 43,560 sf or 43.56 thousands (43,560 divided by 1000)

Pounds needed: 1 pound of nitrogen per 1000 sf needed.

1 lb. times 43.56 = 43.56 lbs. of actual nitrogen needed per acre.

Fertilizer being used: Let's say you are using 18-24-12. The first number is the % nitrogen in the blend - 18% (.18). Take your nitrogen needs from above (43.56 lbs.) and divide by 18% (.18) = 242 lbs./acre

18-24-12 needed to get 1 lb. nitrogen per 1000 sf.

2nd example: Now try an example using 26-4-18 and apply 1-1/2 lbs. of nitrogen per 1000 ft. Take 43.56 times 1.5 lbs = 65.34 lbs. of actual nitrogen per acre needed.

65.34 lbs. divided by 26% (.26) = 251.30 lbs./acre

26-4-18 needed to get 1 lb. nitrogen per 1000 sf.

3rd example: What if a soil test result shows that you need to apply 2 lbs. of phosphorus per 1000 sf. The second number in a fertilizer analysis is the phosphorus level. The third number is the potash level. You are using 18-24-12 as your fertilizer source.

In this example, the phosphorus level in the blend is 24% (.24).

First, take 43.56 and multiply by 2 lbs. = 87.12 lbs./acre of actual phosphorus needed.

Divide 87.12 lbs. by 24% (.24) = 363 lbs./acre needed of 18-24-12.

4th example: When you do apply 363 lbs. of 18-24-12, how much nitrogen and potash are you applying? We already know you are applying 2 lbs./1000 sf of phosphorus from example 3 above.

363 lbs./acre of 18-24-12

363 times 18% (.18) = 65.34 lbs. of nitrogen per acre or 1.5 lbs per 1000 sf.

363 times 24% (.24) = 87.12 lbs. of phosphorus per acre or 2.0 lbs per 1000 sf.

363 times 12% (.12) = 43.56 lbs. of potash per acre or 1.0 lb. per 1000 sf.