

Maximum Applied Banded NH₃, Aqua, and Urea, N Rate In Corn & Spring Wheat Production.
 Avoiding Nitrogen Interference With Placed Phosphate Uptake In Dual Placed Bands.
Improving Placed Phosphate Efficiency In Spring Cropping.

Deep Band Spacing Ammonic Nitrogen Band Centers	Maximum Pounds Ammonic N Applied In The Dual Placement Deep Bands
20"	55
18"	65
15"	83
12"	97
10"	110
7.5"	165
6"	195

Phosphorus Fertilizer Considerations for Maximum Yields. Beaton and Harapiak, 1986.

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When dual placing NH₃ with P in spring crops watch the band spacing concentration.....Corn and Spring Wheat Considered.....Why?

1. NH₃ can interfere with the placed P uptake if the NH₃ band is too concentrated. Corn and Spring Wheat need diluted NH₃ bands for improved uptake of placed P. Pre-plant application of corn nutrients is now possible in no-till using single disc openers. Burning of corn roots is not possible when NH₃ bands are dilute and evenly applied and banded to depths of up to 8 inches. Band width of 15 inch to 10 inch is optimum.

2. Corn and Spring Wheat respond to narrow bands of NH₃ and P when placed at 7 to 8 inch depth.

3. Remember, 70% of the placed P is needed by the plant in the first 30 days of spring seeded wheat. However, only 30% of the placed P can be utilized.....so P rates must be elevated. Future crops can use the remaining P in Rotational Band Loading. The efficiency values of P placement vary with the type of P placement techniques.

4. Consider placing all the placed P in the seed row if the NH₃ band is too concentrated. Corn and Spring Wheat will respond better if the NH₃ bands are less than 15" spacing.

5. Corn and Spring Wheat consumes 70% of it's nutrients in the top 1 foot of soil. Wheat consumes 0.9 lbs. of P per bushel produced. Wheat consumes a very high amount of P per bushel produced as compared to corn.

6. Banding N and P deeper than 4" is now possible. Seed bed quality, moisture infiltration, and moisture storage is compromised with shank application .

7. Utilize Sulfate S or Thiosul in combination with N and P to improve band stabilization and build protein. Sulfur is the most under-applied of all nutrients. Crop sulfur requirements continue to grow as power plants reduce emissions.

8. Micro-nutrients perform at a higher efficiency when applied as liquids. Uniform banded liquid application is most desirable when the band is in close proximity to the seed. Geometry (2 x 2) of the band in relation to the seed may produce higher micro-nutrient performance..

9. Plant nutrients located in close proximity to the seed can produce new and better results with radicle and seminal root hair access. A great start of the crop can result in a great finish. A poor start of the crop never results in a great finish. A better start potential is possible with ideal nutrient band and seed row geometry. Phosphate is non-mobile and placed P is a target nutrient that is found by the plant in a very small soil volume.