

News Column

Stacy Campbell
Cottonwood Extension District, Hays
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How much fertilizer can safely be placed with seed?

All fertilizers are salts and can cause germination problems if too much is placed with the seed. Too much fertilizer may inhibit germination completely, which results in a loss of stand. In other instances, too much fertilizer placed with the seed may simply delay germination, or it may result in weak seedlings with poorly developed root systems. In either case, the affected seedlings will be at a competitive disadvantage and a loss of yield potential may result.

Several points should be kept in mind when evaluating seed-placed fertilizer.

- Soil between the seed and the fertilizer band provides a buffer.
- The potential for injury from seed-applied fertilizer is greater for sandy and/or dry soils.
- Certain types of fertilizers should never be applied with the seed, even at low rates. No urea-containing fertilizer (urea, UAN solution) should be placed in direct seed contact. The hydrolysis of urea to ammonia can result in ammonia toxicity to seedlings.
- We suggest no seed placed fertilizer for soybeans, sunflowers, or dry beans.

Remember that these maximum amounts assume you're not including any potash. If you are adding potash, the maximum amounts in the chart below would be reduced.

Suggested Maximum Rates of Fertilizer To Be Applied Directly With Seed				
Grain Sorghum				
Amount of fertilizer (assuming no added K₂O)				
Row spacing (inches)	Medium to fine Textured Soils		Sandy or Dry Soils	
	11-52-0 (lbs/acre)	10-34-0 (gal/acre)	11-52-0 (lbs/acre)	10-34-0 (gal/acre)
40	38.2	3.6	25.5	2.4
30	50.9	4.9	38.2	3.6
20	76.3	7.3	51.0	4.8
15	101.7	9.7	70.1	6.5
12	127.2	12.1	89.2	8.3
10	152.6	24.6	108.3	10.1
6-8	190.8	18.2	133.8	12.5