

2007

Soybean Management Field Days

Nutrient Management Issues for

Soybean Production

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Nutrient Management Issues for Soybean Production

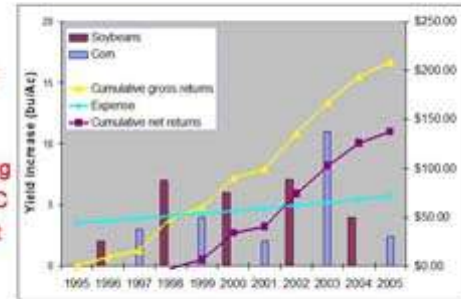
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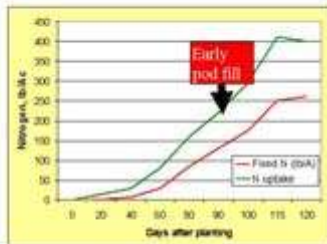
Lime use to amend acid soils

1. Site specific application
 - a. Variability in lime need
 - b. Sampling
 - grid sampling
 - Veris pH +EC
 - Management Zone



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Soybean N need



Starter N?

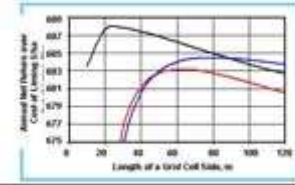
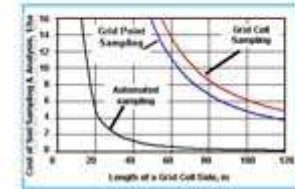
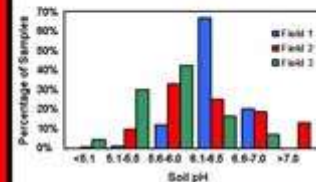
1. 50 lb in ND and RRV of MN
2. 6% yield increase with 15 lb in Brookings, 2x2
3. Ogalaia
4. No yield advantage further south, e.g MN, MO
5. What about no-bill irrigated C-C-SB?

N application at beginning podfill, e.g. 25-30 lb through fertigation

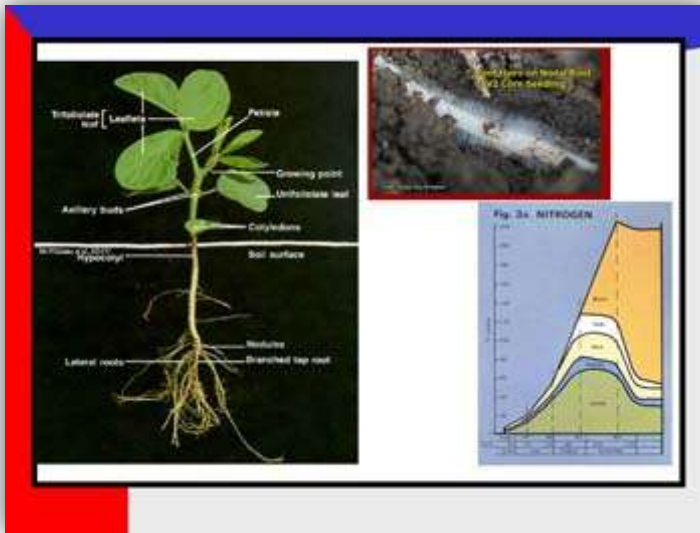
1. IA, MN, SD, MO: little or no response when yield <60 bu/A
2. ~7 bu gain if >60 bu/A in KS
3. MO: >60 bu/A; pH < 7.5; soil nitrate <75 lb/A in 0-24" depth (9-10 ppm)
4. Guidelines for Nebraska

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Lime use to amend acid soils



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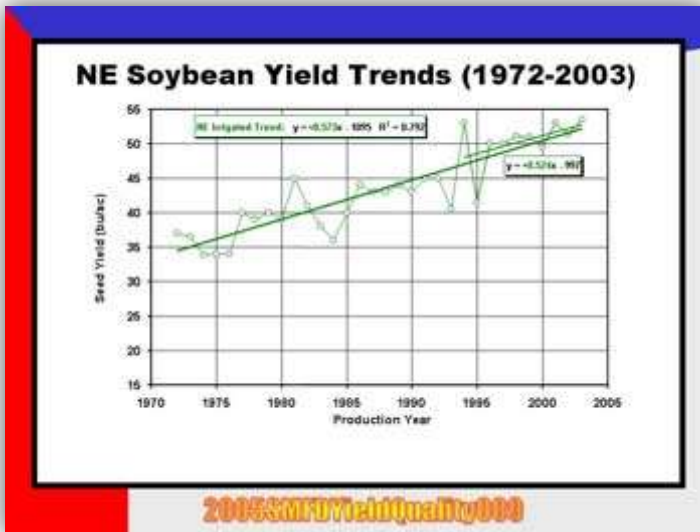
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Improving fertilizer P recovery

- Apply if Bray-1 or Mehlich 3 are < 13 ppm; Olsen < 8 ppm
- P use efficiency improved with band application; apply >1 inch from seed
- Additives to improve fertilizer P recovery, e.g. by reducing P fixation in soil

1. Are they effective?
2. Will more P need to be applied eventually?

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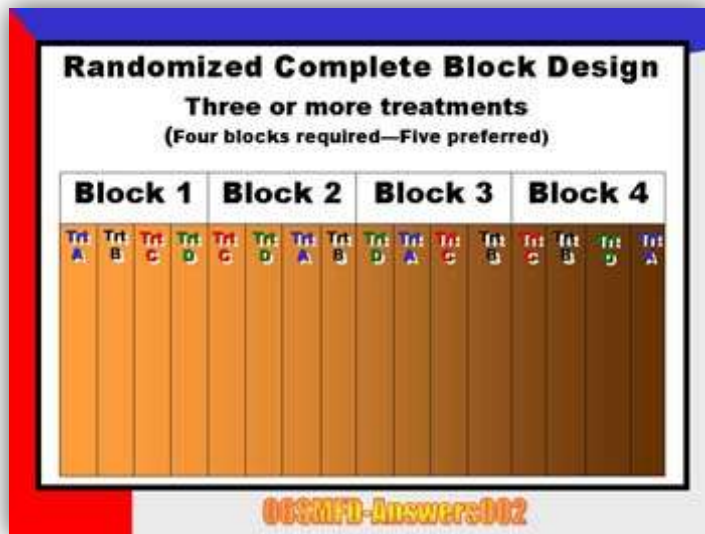
How common are acid and alkaline soils in Nebraska?

The maps show the distribution of soil pH across Nebraska, with yellow indicating higher pH (alkaline) and red indicating lower pH (acidic).

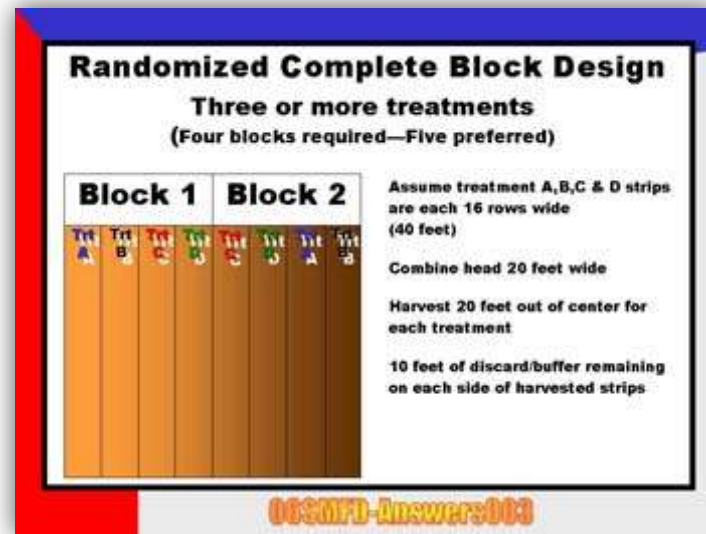
Percent of Samples by pH Range for Zip Code Areas			
	68000-68099	68300-68399	68700-68799
pH ≤ 5.3	7.2%	10.3%	17.7%
5.3 < pH ≤ 6.2	59.2%	61.8%	34.9%
6.2 < pH ≤ 7.2	20.4%	26.3%	25.0%
7.2 < pH ≤ 7.8	7.1%	1.5%	16.7%
7.8 < pH	6.0%	0.1%	5.7%
Total	100.0%	100.0%	100.0%

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