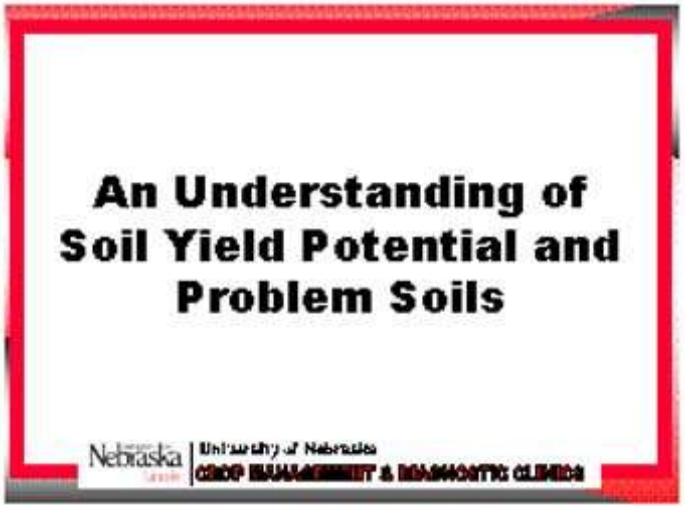
2003 CMDC
Size 30x40



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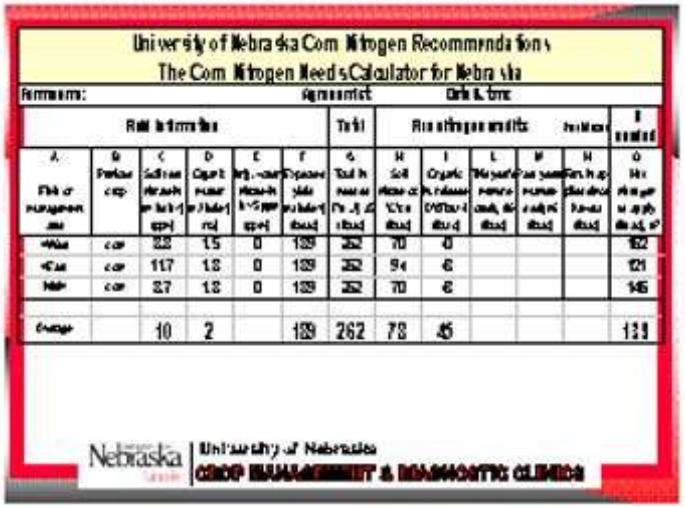

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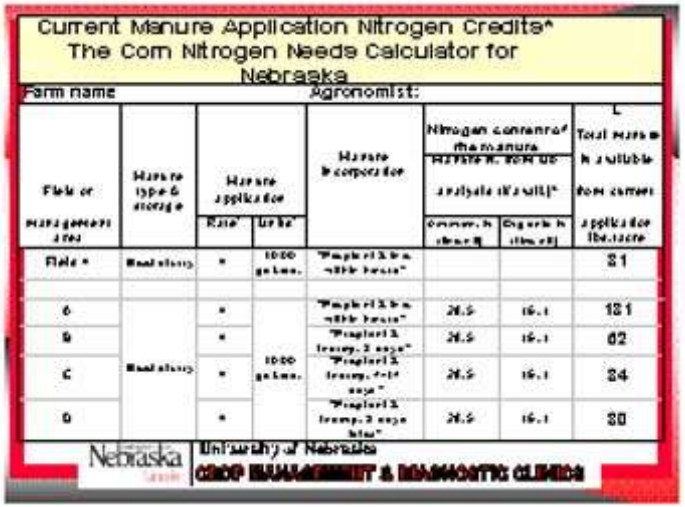

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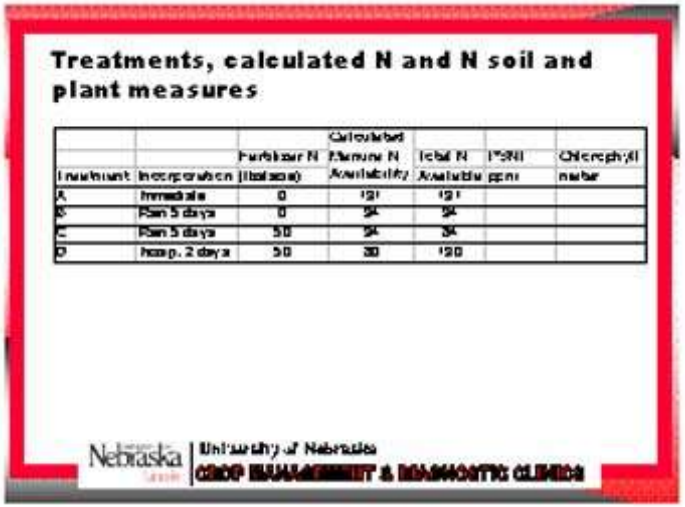

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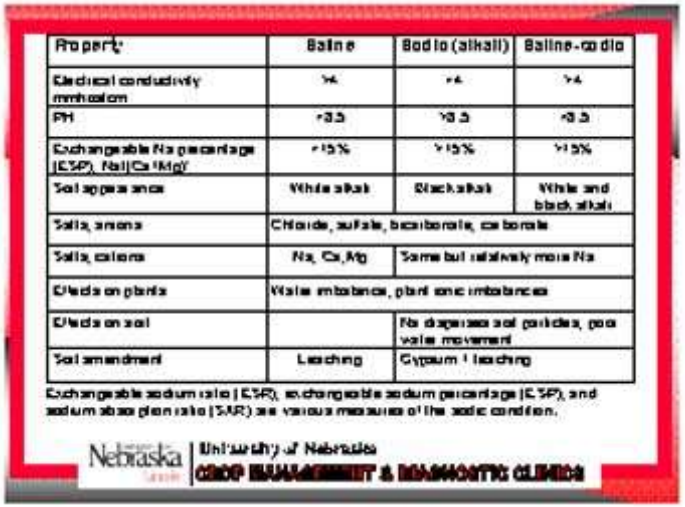

Property	Saline	Sodic (alkali)	Saline-sodic
Electrical conductivity mmhos/cm	>4	>4	>4
PH	<8.5	>8.5	<8.5
Exchangeable Na percentage (ESP), Na/(Ca+Mg)	<15%	>15%	>15%
Soil appearance	White alkali	Black alkali	White and black alkali
Salts, anions	Chloride, sulfate, bicarbonate, carbonate		
Salts, cations	Na, Ca, Mg	Some but relatively more Na	
Effects on plants	Water imbalance, plant ionic imbalances		
Effects on soil		Na dispersed soil particles, poor water movement	
Soil amendment	Leaching	Gypsum + leaching	

Exchangeable sodium ratio (ESR), exchangeable sodium percentage (ESP), and sodium absorption ratio (SAR) are various measures of the sodic condition.

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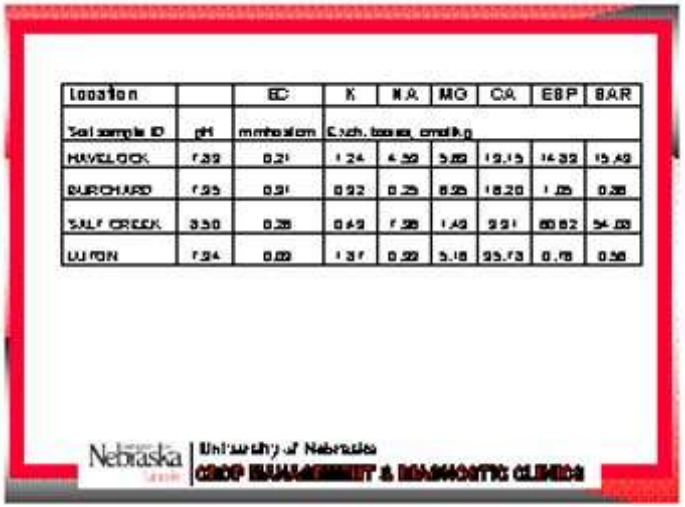

Location		EC	K	NA	MG	CA	ESP	SAR
Soil sample ID	pH	mmhos/cm	Exch. bases, cmol/kg					
HAVELOCK	7.89	0.21	1.24	4.59	5.89	19.15	14.39	15.49
BURCHARD	7.95	0.91	0.92	0.25	6.55	18.20	1.05	0.88
SALT CREEK	8.50	0.26	0.49	7.58	1.49	9.91	80.82	54.03
LUTON	7.94	0.09	1.37	0.59	5.18	93.73	0.76	0.56

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Platte Valley Yellows (lime induced chlorosis), high moisture

- Symptoms of iron deficiency but adequate Fe in plant
- Management
  - Tolerant species and varieties
  - Close spacing within row
  - FeEDDHA in planting furrow

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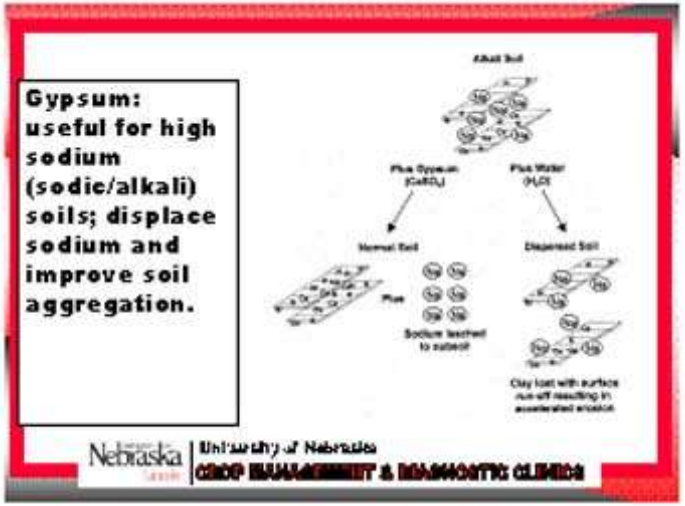

Gypsum: useful for high sodium (sodic/alkali) soils; displace sodium and improve soil aggregation.

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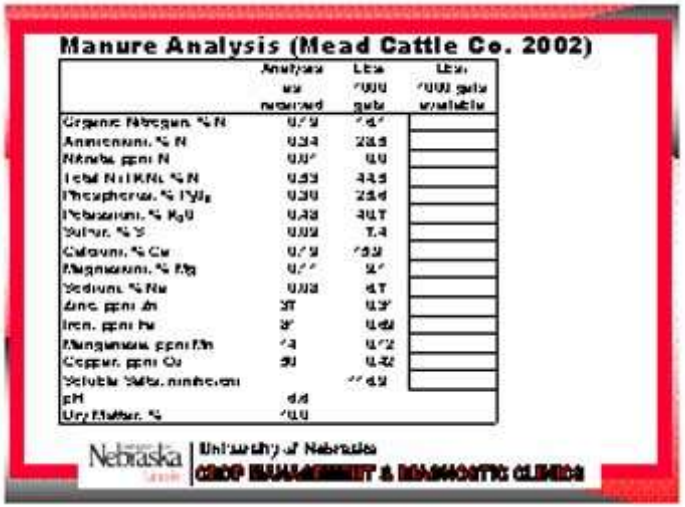
2003julycmdc30x40-008

2003julycmdc30x40-009

2003julycmdc30x40-010



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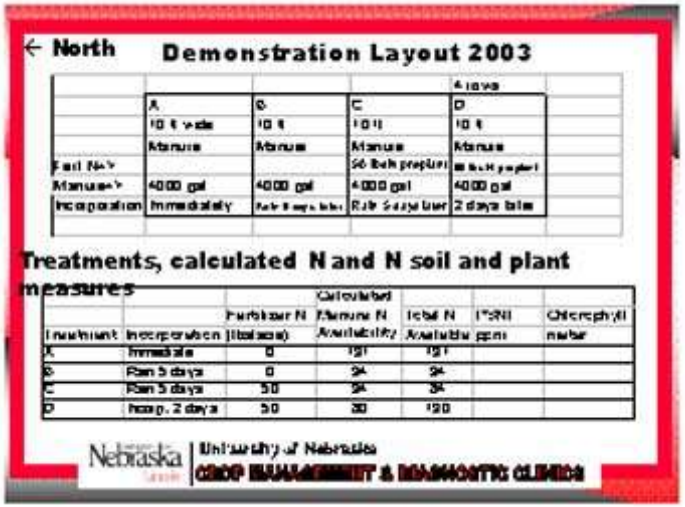

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