



Neal Kinsey

NNTC Presentation



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AGROTAIN

KB SEED SOLUTIONS
NitroRadish

DAWN BIOLOGIC

CASE IH
AGRICULTURE

APACHE ET
SPRAYERS

NEEDHAM
Ag Technologies, LLC.

VERDESAN

TTAN

syngenta

Nufarm

Yetter
FARM EQUIPMENT

PureGrade
Liquid Fertilizer

NO-TILL FARMER
The No-Till Authority Since 1972

National No - Tillage Conference

St. Louis, Missouri January 12, 2017

(T.E.C.) x (Base Saturation %) x (M.E.) = Value in lbs. / acre

Field	1	LB / IA
Sample	2	W-B / C
Lab No.	3	
Total Exchange Capacity (M.E.)	4	22.24
pH of Soil Sample	5	6.00
Humus, Percent	6	2.90
ANIONS	NITROGEN: ENR Value lbs / acre	78
	SULFATE - S: p.p.m.	1
	() = OLSEN P	
	PHOSPHATES: Desired Value as (P ₂ O ₅) Value Found lbs / acre Deficit	320 256 -64
EXCHANGEABLE CATIONS	CALCIUM: Desired Value lbs / acre Value Found Deficit	6049 5603 -446
	MAGNESIUM: Desired Value lbs / acre Value Found Deficit	641 775 134
	POTASSIUM: Desired Value lbs / acre Value Found Deficit	867 320 -547
	SODIUM: lbs / acre	24
	BASE SATURATION PERCENT	
	Calcium (60 to 70%) } 80% 14	62.98
	Magnesium (10 to 20%)	14.52
	Potassium (2 to 7.5%)	1.84
	Sodium (.5 to 3%)	0.23
	Other Bases (Variable)	5.43
	EXCHANGEABLE HYDROGEN (10 to 15%)	15.00
	Cobalt (p.p.m.)	15
	Salinity 1:2 EC (dS/M)	16
	Chlorides (p.p.m.)	17
	Boron (p.p.m.)	0.79
	Iron (p.p.m.)	342.00
	Manganese (p.p.m.)	67.00
	Copper (p.p.m.)	0.89
	Zinc (p.p.m.)	7.50



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Field	1	
Sample	2	TR / MO
Lab No.	3	BEANS
Total Exchange Capacity (M.E.)	4	23.17
pH of Soil Sample	5	6.30
Humus, Percent	6	2.00
ANIONS	NITROGEN: ENR Value lbs / acre	7 60
	SULFATE - S: p.p.m.	8 13
	() = OLSEN P	
	PHOSPHATES: Desired Value as (P ₂ O ₅) Value Found lbs / acre Deficit	9 252 190 -62
EXCHANGEABLE CATIONS	CALCIUM: Desired Value lbs / acre Value Found Deficit	10 6302 5352 -950
	MAGNESIUM: Desired Value lbs / acre Value Found Deficit	11 667 1314
	POTASSIUM: Desired Value lbs / acre Value Found Deficit	12 580 351 -229
	SODIUM: lbs / acre	13 116
	BASE SATURATION PERCENT	
	Calcium (60 to 70%) } 80% 14	57.74
	Magnesium (10 to 20%)	23.63
	Potassium (2 to 7.5%)	1.94
	Sodium (.5 to 3%)	1.09
	Other Bases (Variable)	5.10
	EXCHANGEABLE HYDROGEN (10 to 15%)	10.50
	Cobalt (p.p.m.)	15
	Salinity 1:2 EC (dS/M)	16
	Chlorides (p.p.m.)	17
	Boron (p.p.m.)	18 1.13
	Iron (p.p.m.)	19 1412.00
	Manganese (p.p.m.)	20 75.00
	Copper (p.p.m.)	21 2.90
	Zinc (p.p.m.)	22 6.60



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Field	1	
Sample	2	KF / MO
Lab No.	3	
Total Exchange Capacity (M.E.)	4	8.98
pH of Soil Sample	5	6.20
Humus, Percent	6	2.10
ANIONS	NITROGEN: ENR Value lbs / acre	7 62
	SULFATE - S: p.p.m.	8 2
	() = OLSEN P	
	PHOSPHATES: Desired Value as (P ₂ O ₅) Value Found lbs / acre Deficit	9 238 264
EXCHANGEABLE CATIONS	CALCIUM: Desired Value lbs / acre Value Found Deficit	10 2443 2056 -387
	MAGNESIUM: Desired Value lbs / acre Value Found Deficit	11 259 388
	POTASSIUM: Desired Value lbs / acre Value Found Deficit	12 316 487
	SODIUM: lbs / acre	13 25
BASE SATURATION PERCENT		
Calcium (60 to 70%) } 80% 14		57.24
Magnesium (10 to 20%)		18.00
Potassium (2 to 7.5%)		6.95
Sodium (.5 to 3%)		0.61
Other Bases (Variable)		5.20
EXCHANGEABLE HYDROGEN (10 to 15%)		12.00
Cobalt (p.p.m.)	15	
Salinity 1:2 EC (dS/M)	16	
Chlorides (p.p.m.)	17	
Boron (p.p.m.)	18	1.15
Iron (p.p.m.)	19	493.00
Manganese (p.p.m.)	20	74.00
Copper (p.p.m.)	21	2.70
Zinc (p.p.m.)	22	10.10



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Field	1	JG / IL
Sample	2	B / C
Lab No.	3	
Total Exchange Capacity (M.E.)	4	9.96
pH of Soil Sample	5	6.10
Humus, Percent	6	1.40
ANIONS	NITROGEN: ENR Value lbs / acre	7 48
	SULFATE - S: p.p.m.	8 21
	() = OLSEN P	
	PHOSPHATES: Desired Value as (P ₂ O ₅) Value Found lbs / acre Deficit	9 320 285 -35
EXCHANGEABLE CATIONS	CALCIUM: Desired Value lbs / acre Value Found Deficit	10 2709 2261 -448
	MAGNESIUM: Desired Value lbs / acre Value Found Deficit	11 287 460 173
	POTASSIUM: Desired Value lbs / acre Value Found Deficit	12 388 261 -127
	SODIUM: lbs / acre	13 88
	BASE SATURATION PERCENT	
	Calcium (60 to 70%) } 80% 14	56.75
	Magnesium (10 to 20%)	19.24
	Potassium (2 to 7.5%)	3.36
	Sodium (.5 to 3%)	1.92
	Other Bases (Variable)	5.23
	EXCHANGEABLE HYDROGEN (10 to 15%)	13.50
	Cobalt (p.p.m.)	15
	Salinity 1:2 EC (dS/M)	16
	Chlorides (p.p.m.)	17
	Boron (p.p.m.)	18 0.96
	Iron (p.p.m.)	19 963.00
	Manganese (p.p.m.)	20 124.00
	Copper (p.p.m.)	21 3.00
	Zinc (p.p.m.)	22 9.30



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Field	1	
Sample	2	4
Lab No.	3	PH / PA
Total Exchange Capacity (M.E.)	4	9.84
pH of Soil Sample	5	6.90
Humus, Percent	6	2.50
ANIONS	NITROGEN: ENR Value lbs / acre 7	70
	SULFATE - S: p.p.m. 8	10
	() = OLSEN P	
	PHOSPHATES: Desired Value 9 as (P ₂ O ₅) Value Found lbs / acre Deficit	238 1134
EXCHANGEABLE CATIONS	CALCIUM: Desired Value 10 lbs / acre Value Found Deficit	2676 2687
	MAGNESIUM: Desired Value 11 lbs / acre Value Found Deficit	283 387
	POTASSIUM: Desired Value 12 lbs / acre Value Found Deficit	313 645
	SODIUM: lbs / acre 13	43
BASE SATURATION PERCENT		
Calcium (60 to 70%) } 80% 14		68.26
Magnesium (10 to 20%)		16.39
Potassium (2 to 7.5%)		8.40
Sodium (.5 to 3%)		0.95
Other Bases (Variable)		4.50
EXCHANGEABLE HYDROGEN (10 to 15%)		1.50
Cobalt (p.p.m.)	15	
Salinity 1:2 EC (dS/M)	16	
Chlorides (p.p.m.)	17	
Boron (p.p.m.)	18	0.69
Iron (p.p.m.)	19	163.00
Manganese (p.p.m.)	20	230.00
Copper (p.p.m.)	21	2.40
Zinc (p.p.m.)	22	9.40



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Field	1	ONE 20 AC
Sample	2	A
Lab No.	3	EF / IN
Total Exchange Capacity (M.E.)	4	15.87
pH of Soil Sample	5	6.80
Humus, Percent	6	1.90
ANIONS	NITROGEN: ENR Value lbs / acre 7	58
	SULFATE - S: p.p.m. 8	16
	() = OLSEN P	
	PHOSPHATES: Desired Value 9 as (P ₂ O ₅) Value Found lbs / acre Deficit	244 417
EXCHANGEABLE CATIONS	CALCIUM: Desired Value 10 lbs / acre Value Found Deficit	4315 4452
	MAGNESIUM: Desired Value 11 lbs / acre Value Found Deficit	456 719
	POTASSIUM: Desired Value 12 lbs / acre Value Found Deficit	463 310 -153
	SODIUM: lbs / acre 13	63
BASE SATURATION PERCENT		
Calcium (60 to 70%) } 80% 14		70.15
Magnesium (10 to 20%)		18.88
Potassium (2 to 7.5%)		2.50
Sodium (.5 to 3%)		0.86
Other Bases (Variable)		4.60
EXCHANGEABLE HYDROGEN (10 to 15%)		3.00
Cobalt (p.p.m.)	15	
Salinity 1:2 EC (dS/M)	16	
Chlorides (p.p.m.)	17	
Boron (p.p.m.)	18	0.84
Iron (p.p.m.)	19	376.00
Manganese (p.p.m.)	20	79.00
Copper (p.p.m.)	21	2.40
Zinc (p.p.m.)	22	7.00



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Field	1	
Sample	2	C / B
Lab No.	3	IA
Total Exchange Capacity (M.E.)	4	37.64
pH of Soil Sample	5	7.30
Humus, Percent	6	3.80
ANIONS	NITROGEN: ENR Value lbs / acre	7 88
	SULFATE - S: p.p.m.	8 3
	() = OLSEN P	
	PHOSPHATES: Desired Value as (P ₂ O ₅) lbs / acre Value Found Deficit	9 300 505 205
EXCHANGEABLE CATIONS	CALCIUM: Desired Value lbs / acre Value Found Deficit	10 10238 12646 2408
	MAGNESIUM: Desired Value lbs / acre Value Found Deficit	11 1084 940 -144
	POTASSIUM: Desired Value lbs / acre Value Found Deficit	12 677 406 -271
	SODIUM: lbs / acre	13 22
	BASE SATURATION PERCENT	
	Calcium (60 to 70%) } 80%	14 83.99
	Magnesium (10 to 20%)	10.41
	Potassium (2 to 7.5%)	1.38
	Sodium (.5 to 3%)	0.13
	Other Bases (Variable)	4.09
	EXCHANGEABLE HYDROGEN (10 to 15%)	0.00
	Cobalt (p.p.m.)	15
	Salinity 1:2 EC (dS/M)	16
	Chlorides (p.p.m.)	17
	Boron (p.p.m.)	18 1.07
	Iron (p.p.m.)	19 71.00
	Manganese (p.p.m.)	20 70.00
	Copper (p.p.m.)	21 0.51
	Zinc (p.p.m.)	22 7.00



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