		CCS FER	TILITY C	ALCULAT	OR FOR	SOYBEA	N					SHEET 1
TEST LAB	Waters		Test Date	5/1	/16	DATE	5/12	2/16				
FIELD		FLD: 1,2	2,3,4,5,6			CROP	SOYE	BEAN	Square D	Soybean	ClientSoybean	
Base Ca	Base Mg	Base K	•			P Lb/A	S Lb/A	B Lb/A	Zn Lb/A	Mn Lb/A	Fe Lb/A	Cu Lb/A
0.53	0.10	0.020	Calcula	ced From E	Base Sat.	17.33	109.0	1.40	4.5	15.7	19.7	1.27
Gypsum	Hi Cal	Dolomite	J		K	Р	S	В	Zn	Mn	Fe	Cu
450		1157	(45.5) (97.8)		51.4	78.67	(134.95) (0.20)		2.67	15.53 4.33		(0.31)
CEC	CEC pH CE			OXIC & PO	OR N AVAILA	ABILITY	Phosphorus override			Potassium Override		
6.4	5.3	1.2		E LIME AND				Mg %	K %	Nitrogen Override		
SOYBEAN				AS SOON AS	S POSSIBLE		0.65	0.11	0.03	SOYBEAN BU./AC.		75
1				Pro	duction Nut	trient Requi	rements in	Lbs/Ac Per Y	ear		LCD	10.0
NU	NUTRIENTS			K ₂ O	Ca	Mg	S	В	Zn	Mn	Fe	Cu
	SOIL BASE NEEDS			62	(45)	(97.8)	(135.0)	(0.200)	2.67	15.53	4.33	(0.307)
CROF	188	66	141	41.3	11.3	15.0	0.188	0.56	0.94	0.75	0.188	
TOTA	L REQUIRED	13	123	202	(4)	(86.6)	(120.0)	(0.013)	3.23	16.47	5.08	(0.119)
LB/AC	ANALYSIS	1	12	20					0.32	1.65	0.51	
222.2	0011			24.5		22.2	24.5					
300.0	SPM			64.5		33.0	64.5					
25.0	3-9-9 ST	0.75	2.25	2.25				0.008				
25.0	3-3-3 31	0.75	2.25	2.25				0.006				
700.0	2-14-20 SB DB	14	126	140				0.070	3.19	9.80	4.20	
	ADDED NUT.	15	128	207		33.0	64.5	0.078	3.19	9.80	4.20	
Nutr	ient Deficit	(2)	(5)	(4)	(4)	(119.6)	(184.5)	(0.090)	0.04	6.67	0.88	(0.119)
NOTE:	Proper pH	is very important. Correction of pH and calcium deficiencies should be made prior to planting. If P ₂ O ₅ starter enter 1										

70 - 80% of required nitrogen is supplied via bacteria in nodules. If the yield exceeds 70 bushel/acre for soybeans, additional nitrogen is recommended

DATE Test Date NUTRIEI TOTAL REC LB/AC 300.0	ANALYSIS MURIATE 10-2-10 SPM	Field N 13	P ₂ O ₅ 123		_D: 1,2,3,4,		rtilizer to stir	nulate microl Customer	<mark>bial diversit</mark>						
NUTRIEI TOTAL REC	ENTS EQUIRED ANALYSIS MURIATE 10-2-10 SPM	N 13 1	123	K₂O	Ca		S			Square D	Soybean				
LB/AC	ANALYSIS MURIATE 10-2-10 SPM	13	123	_		Mg	s	_				Square D Soybean			
LB/AC	ANALYSIS MURIATE 10-2-10 SPM	1		202	(4)		·	В	Zn	Mn	Fe	Cu			
	MURIATE 10-2-10 SPM	•	12		(4)	(87)	(120)	(0.013)	3.23	16.47	5.08	(0.119)			
300.0	10-2-10 SPM	400/		20					0.32	1.65	0.51				
300.0	SPM	400/		60%											
300.0		10%	2%	10%			3.0%					0.010%			
	400			22%		11.0%	21.5%								
	ACS														
25.0	3-9-9 ST	3%	9%	9%				0.030%							
	TIGER 90						90.0%								
	8-2-10		2%	10%			3.0%		0.20%	0.40%	0.40%	0.030%			
10-0-10		10%		10%		20.0%		0.030%	0.02%	0.40%	0.03%	0.010%			
	19-0-0 5-0-20 KTS														
				2%			13.0%								
	4-0-16	4%		16%											
	10-34-0	10%	34%												
	18-0-0	18%					5.0%								
	0-0-43 C			43%		3.6%	12.0%								
	SOP			50%			17.0%								
	9-0-0 Cal.	9%						0.020%							
	12-12-0 S	12%	12%					0.033%							
700.0	2-14-20 SB DB	2.00%	18.00%	20.00%				0.010%	0.46%	1.40%	0.60%				
NUTRIENTS FROM BLEND	15	128	207		33.0	64.5	0.08	3.19	9.80	4.20					
COMBINED NUT. STATUS	COMBINED NUT. STATUS			(4)	(4)	(120)	(184)	(0.090)	0.04	6.67	0.88	(0.119)			
SEE COMMEN		N	P_2O_5	K₂O	Ca	Mg	s	В	Zn	Mn	Fe	Cu			

RECOMMENDATIONS MADE ON THIS REPORT ARE BASED ON SOIL AND OTHER INFORMATION AS SUPPLIED BY THE CUSTOMER OR CUSTOMERS AGENT. SEASONAL ADJUSTMENTS MAY HAVE TO BE MADE DUE TO WEATHER, VARIETY, CULTURAL, IRRIGATION OR DISEASE/PEST CONDITIONS ENCOUNTERED DURING THE GROWING SEASON. IT IS VERY IMPORTANT TO BALANCE BASE CATIONS TO RECOMMENDED LEVELS. CALCIUM AND MAGNESIUM SHOULD BE DERIVED FROM DOLOMITE IF pH IS LOW, OTHERWISE USE GYPSUM FOR CALCIUM AND SULPO-MAG OR OTHER SUITABLE MAGNESIUM SOURCE. IF FOLIARS ARE SUBSTITUTED FOR SOIL T.M. TAKE THE SOIL DEFICIENCY AND DIVIDE BY 6 - 9 TO DETERMINE FOLIAR RATE TO APPLY IN LB/AC.

LIME AND/OR GYPSUM

APPLY GYPSUM AT 450 Lb/Acre

APPLY DOLOMITE AT 1,157 Lb/Acre

It is important to understand the growth characteristis of soybean varieties. Indeterminant varieties are suited for zone 5 and earlier and determinant varieties are suited for later zones. This growth habit will help determine the fertility timing. DOLOMITE &/or GYPAUM MAY BE NEEDED TO CORRECT THE BASE SATURATION OF CALCIUM.

The fertilizer analysis 2-14-20 SB DB should be

This fertilizer should be applied ppt broadcase for large population plantings or side dressed for lower plant density. The rate is based on a population of soybeans ~ 160,000 per acre for large density and less than 100,000 for small density plantings. The 3-9-9 should be applied at planting with the seeds for best results. If an inoculation is used, it can be included with this application as well. The ACS should be applied at 6 - 16 fl/oz per acre with the 3-9-9 starter/pop-up and then applied again with fungicide or other fertilizer applications. SEE THE DR. PLANK LIMESTONE CALC SHEET FOR EXACT AMENDMENTS/AC.

Waters	1	A&L		Summary From the Soil Tests Dated DATE									5/1	I/16	Crop		SOYBEAN				SHEET 3	
ccs	Custo	mer	;	Squar	e D Sc	ybean	1	Test	Test Taken By Bufor			ord Cree	ord Creech, CCA			Tested Area		FLD: 1,2,3			,4,5,6	
No.	SAMPLE	P1	P2	К	Mg	Ca	Na	Ph	CEC	%K	%Mg	%Ca	%Na	S	Zn	Mn	Fe	Cu	В	Ds/M	ОМ %	
1	1		14	96	146	1188		5.4	5.6	2.2	10.8	52.9		105.8	3.2	11.0	18.0	1.00	0.80		4.5	
1	2		12	76	140	1216		5.5	5.4	1.8	10.7	55.8		126.6	4.0	19.0	18.0	1.20	1.00		4.4	
1	3		14	70	126	1238		5.5	5.3	1.7	9.9	58.2		116.4	4.0	16.0	20.0	1.40	1.40		4.0	
1	4		30	72	238	1838		5.4	8.4	1.1	11.8	54.9		109.8	6.0	14.0	22.0	1.40	1.40		4.9	
1	5		24	154	130	1244		5.2	6.0	3.3	9.1	52.0		104.0	6.0	16.0	16.0	1.40	2.00		4.0	
1	6		10	100	132	1392		5.0	7.6	1.7	6.7	45.7		91.4	4.0	18.0	24.0	1.20	1.80		4.7	
																					+	
																					+	
MEASU	REMENTS	P1	P2	K	Mg	Ca	Na	Ph	CEC	%K	%Mg	%Ca	%Na	S	Zn	Mn	Fe	Cu	В	Ds/M	OM %	
6.0	Total		104	568	912	8116		32.0	38.3	11.8	59.0	319.5	76.10.	654.0	27.2	94.0	118.0	7.60	8.40		26.5	
	Avg. ppm		9	47	76	676		5.3	6.4	2.0	9.8	53.3		54.50	2.27	7.83	9.83	0.63	0.70		2.2	
	Lb/Ac		17	95	152	1353								109.0	4.5	15.7	19.7	1.27	1.40			
	STDEV		6	22	29	175		0.2	1.1	0.5	1.3	3.1		8.6	1.0	2.1	2.3	0.1	0.3		0.3	
	STD/AVG		0.74	0.46	0.38	0.26		0.03	0.17	0.3	0.1	0.1		0.16	0.43	0.27	0.24	0.21	0.48		0.1	
	T FLAG		4	4	4	4				4					4	4	4	4	4			
Amme	nd Flag		YES	YES	YES	YES				YES					YES	YES	YES	YES	YES		1	
nH TO	O LOW				4	4		4			4	4				4	4					
•			30	154	238	1838		5.5	8.4	3.3	11.8	58.2		126.6	6.0	19.0	24.0	1.40	2.00		4.9	
Highest Value Small Value (SV)																						
			10	70	126	1188		5.0	5.3	1.1	6.7	45.7	<u> </u>	91.4	3.2	11.0	16.0	1.00	0.80		4.0	
LOOK A	T IF (SV) <		13	75	121	1009							· · · · · · · · · · · · · · · · · · ·	72.7	3.1	10.0	13.3	0.80	0.93			
				= Low									CAI	CULAT	ED AVG.	" N " RE	LEASE	FROM	O.M./A	C/YR	44	
BLUE = High BLACK = Normal GREEN = Substitute											EST. AVG. % N RELEASE/YR. FROM O.M. ~(1-4%)/YR. (This release varies with moisture & temp.)							2				