



Soil Analysis Report

Waters Agricultural Laboratories, Inc

"Improving Growth...
With Science"

2101 Calhoun Rd | Owensboro, KY 42301- | Phone (270) 685-4039

WATERS AG - TEST [2005]

Grower: JOHN DOE

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Farm/Field: HOME / HOME

Target pH: 6.5

2101 CALHOUN ROAD

LID: C2D73886645

OWENSBORO, KY 42301

Test Method: Mehlich III - SMP

Received: 10/27/2022

Processed: 10/31/2022

Sample ID	Lab Number	P		K		Mg		Ca		pH		S	B	Zn	Mn	Fe	Cu	Na	OM	ENR	CEC	% Base Saturation				
		lbs/A	M	lbs/A	M	lbs/A	VH	lbs/A	VH	Soil	Buffer	lbs/A	lbs/A	lbs/A	lbs/A	lbs/A	lbs/A	lbs/A	lbs/A	%	lbs/A	meq	K	Mg	Ca	H
2	155321QM	67	M	186	M	490	VH	3977	VH	6.8	7.00							24	2.22	44	12.3	1.9	16.6	81.0	0.0	0.4
3	155322QM	45	M	178	M	291	H	2630	VH	6.1	6.90							34	1.37	27	9.3	2.5	13.1	70.8	12.9	0.8
4	155323QM	28	L	225	A	253	H	2419	VH	6.2	6.95							28	1.63	33	8.1	3.6	13.1	75.1	7.5	0.8
5	155324QM	24	L	183	M	288	H	2664	VH	6.1	6.95							23	1.50	30	8.7	2.7	13.7	76.2	6.9	0.6
6	155325QM	53	M	152	M	384	VH	3755	VH	6.8	7.00							32	1.33	27	11.3	1.7	14.2	83.4	0.0	0.6
7	155326QM	54	M	176	M	248	A	2457	VH	5.5	6.65							26	1.60	32	11.7	1.9	8.9	52.7	36.0	0.5
8	155327QM	85	M	350	H	467	VH	4132	VH	6.4	6.95							23	2.58	52	13.4	3.4	14.5	77.2	4.5	0.4
9	155328QM	33	L	142	M	318	VH	2658	VH	6.3	7.00							27	1.45	29	8.2	2.2	16.1	80.9	0.0	0.7
10	155329QM	16	L	127	M	355	VH	2784	VH	6.4	7.00							30	1.66	33	8.7	1.9	17.1	80.3	0.0	0.8
11	155330QM	63	M	260	A	456	VH	3797	VH	6.5	7.00							58	2.06	41	11.9	2.8	16.0	80.1	0.0	1.1

Report values represent available plant nutrients in the soil. Rating Codes: L (Low), M (Medium), A (Adequate), H (High), VH (Very High)

Abbreviations: ENR (Estimated Nitrogen Release), C.E.C. (Cation Exchange Capacity), OM (Organic Matter)

Soil Fertility Recommendations (lbs/A)

Sample ID	Crop	Yield	Lime	Gypsum	N	P	K	Mg	S	B	Zn	Mn	Fe	Cu
			Tons/Acre		Nitrogen	Phosphate	Potash	Magnesium	Sulfur	Boron	Zinc	Manganese	Iron	Copper
2	CORN	180 BUSHELS (Tri-State)			220	63	100							
3	CORN	180 BUSHELS (Tri-State)			220	63	101							
4	CORN	180 BUSHELS (Tri-State)			220	93	67							
5	CORN	180 BUSHELS (Tri-State)			220	103	97							
6	CORN	180 BUSHELS (Tri-State)			220	63	125							
7	CORN	180 BUSHELS (Tri-State)	1.6		220	63	107							
8	CORN	180 BUSHELS (Tri-State)			220									
9	CORN	180 BUSHELS (Tri-State)			220	80	125							
10	CORN	180 BUSHELS (Tri-State)			220	123	137							
11	CORN	180 BUSHELS (Tri-State)			220	63	56							

Explanation of Symbols - * (maintenance), % (percent), ppm (parts per million), lbs/A (pounds per acre), lbs/1000 sq. ft. (pounds per 1000 square feet), mmhos/cm (milli-mhos per centimeter), meq (meq/100g: milli-equivalent per 100 grams)

Comments:

SPECIFIC STATE/REGIONAL NITROGEN RECOMMENDATIONS MAY BE CALCULATED USING CNRC.AGRON.IASTATE.EDU
 TIMING/SIDEDRESSING OF NITROGEN SHOULD BE CONSIDERED WHERE THERE IS A HIGH RISK OF LOSS BETWEEN PLANTING AND CROP N USE. COPPER SHOULD BE APPLIED IN PEAT, MUCK, OR BLACK SANDS WITH PH <5.3 AT A RATE OF 1-4 LBS. MANGANESE SHOULD BE CONSIDERED IN PEAT AND MUCK SOILS WITH PH <5.8; BLACK SANDS AND LAKEBED/DEPRESSIONAL SOILS WITH PH > 6.2. MANGANESE RATE OF 2-10 LBS SHOULD BE APPLIED BUT NOT BROADCASTED. ZINC SHOULD BE BROADCASTED AT A RATE OF 5-10 LBS WHEN PEAT, MUCK, AND MINERAL SOILS ARE >6.5. FOLLOW UP WITH TISSUE SAMPLES THROUGHOUT THE GROWING SEASON.

Reported Lime, Phosphate, and Potash recommendations are based on Tri-State Fertilizer Recommendations.



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		lbs/A	L	lbs/A	A	lbs/A	VH	lbs/A	VH	Soil	Buffer	lbs/A	lbs/A	lbs/A	lbs/A	lbs/A	lbs/A	lbs/A	%	lbs/A	meq	K	Mg	Ca	H	Na
12	155331QM	37	L	176	M	321	VH	2920	VH	6.3	7.00							28	1.69	34	8.9	2.5	15.0	81.8	0.0	0.7
13	155332QM	31	L	227	A	440	VH	3890	VH	6.7	7.00							24	2.31	46	11.9	2.4	15.4	81.7	0.0	0.4
14	155333QM	20	L	176	M	331	VH	2744	VH	6.4	7.00							26	1.73	35	8.5	2.6	16.2	80.5	0.0	0.7
15	155334QM	49	M	260	A	260	H	2284	VH	6.1	6.90							21	1.60	32	8.4	4.0	12.9	68.2	14.3	0.5
16	155335QM	83	M	191	M	288	H	2608	VH	5.7	6.80							25	1.61	32	10.4	2.4	11.5	62.6	23.0	0.5
17	155336QM	145	A	238	A	420	VH	3578	VH	6.3	6.95							27	2.74	55	11.7	2.6	15.0	76.7	5.1	0.5
18	155337QM	123	A	366	H	425	VH	3577	VH	6.6	7.00							26	2.05	41	11.2	4.2	15.8	79.6	0.0	0.5
19	155338QM	25	L	116	L	297	H	2678	VH	6.3	7.00							30	1.45	29	8.1	1.8	15.2	82.2	0.0	0.8
20	155339QM	68	M	279	A	417	VH	3521	VH	6.4	6.95							25	2.30	46	11.6	3.1	15.0	76.2	5.2	0.5
21	155340QM	29	L	151	M	376	VH	3078	VH	6.9	7.00							27	1.45	29	9.5	2.0	16.5	80.9	0.0	0.6

Report values represent available plant nutrients in the soil. Rating Codes: L (Low), M (Medium), A (Adequate), H (High), VH (Very High)

Abbreviations: ENR (Estimated Nitrogen Release), C.E.C. (Cation Exchange Capacity), OM (Organic Matter)

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Sample ID	Crop	Yield	Lime	Gypsum	N	P	K	Mg	S	B	Zn	Mn	Fe	Cu
			Tons/Acre		Nitrogen	Phosphate	Potash	Magnesium	Sulfur	Boron	Zinc	Manganese	Iron	Copper
12	CORN	180 BUSHELS (Tri-State)			220	70	102							
13	CORN	180 BUSHELS (Tri-State)			220	86	66							
14	CORN	180 BUSHELS (Tri-State)			220	113	102							
15	CORN	180 BUSHELS (Tri-State)			220	63	56							
16	CORN	180 BUSHELS (Tri-State)	0.8		220		93							
17	CORN	180 BUSHELS (Tri-State)			220		58							
18	CORN	180 BUSHELS (Tri-State)			220									
19	CORN	180 BUSHELS (Tri-State)			220	100	143							
20	CORN	180 BUSHELS (Tri-State)			220	63	56							
21	CORN	180 BUSHELS (Tri-State)			220	90	122							

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		lbs/A	M	lbs/A	M	lbs/A	VH	lbs/A	VH	Soil	Buffer	lbs/A	lbs/A	lbs/A	lbs/A	lbs/A	lbs/A	lbs/A	%	lbs/A	meq	K	Mg	Ca	H	Na
2	155321QT	67	M	186	M	490	VH	3977	VH	6.8	7.00							24	2.22	44	12.3	1.9	16.6	81.0	0.0	0.4
3	155322QT	45	M	178	M	291	H	2630	VH	6.1	6.90							34	1.37	27	9.3	2.5	13.1	70.8	12.9	0.8
4	155323QT	28	L	225	A	253	H	2419	VH	6.2	6.95							28	1.63	33	8.1	3.6	13.1	75.1	7.5	0.8
5	155324QT	24	L	183	M	288	H	2664	VH	6.1	6.95							23	1.50	30	8.7	2.7	13.7	76.2	6.9	0.6
6	155325QT	53	M	152	M	384	VH	3755	VH	6.8	7.00							32	1.33	27	11.3	1.7	14.2	83.4	0.0	0.6
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9	155328QT	33	L	142	M	318	VH	2658	VH	6.3	7.00							27	1.45	29	8.2	2.2	16.1	80.9	0.0	0.7
10	155329QT	16	L	127	M	355	VH	2784	VH	6.4	7.00							30	1.66	33	8.7	1.9	17.1	80.3	0.0	0.8
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			Tons/Acre		Nitrogen	Phosphate	Potash	Magnesium	Sulfur	Boron	Zinc	Manganese	Iron	Copper
2	WHEAT	80 BUSHEL (Tri-State)			90	40	84							
3	WHEAT	80 BUSHEL (Tri-State)			90	78	85							
4	WHEAT	80 BUSHEL (Tri-State)			90	120	* 51							
5	WHEAT	80 BUSHEL (Tri-State)			90	130	81							
6	WHEAT	80 BUSHEL (Tri-State)			90	58	109							
7	WHEAT	80 BUSHEL (Tri-State)	1.6		90	55	91							
8	WHEAT	80 BUSHEL (Tri-State)			90	40								
9	WHEAT	80 BUSHEL (Tri-State)			90	108	109							
10	WHEAT	80 BUSHEL (Tri-State)			90	150	121							
11	WHEAT	80 BUSHEL (Tri-State)			90	40	* 40							

Explanation of Symbols - * (maintenance), % (percent), ppm (parts per million), lbs/A (pounds per acre), lbs/1000 sq. ft. (pounds per 1000 square feet), mmhos/cm (milli-mhos per centimeter), meq (meq/100g: milli-equivalent per 100 grams)

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12	155331QT	37	L	176	M	321	VH	2920	VH	6.3	7.00							28	1.69	34	8.9	2.5	15.0	81.8	0.0	0.7
13	155332QT	31	L	227	A	440	VH	3890	VH	6.7	7.00							24	2.31	46	11.9	2.4	15.4	81.7	0.0	0.4
14	155333QT	20	L	176	M	331	VH	2744	VH	6.4	7.00							26	1.73	35	8.5	2.6	16.2	80.5	0.0	0.7
15	155334QT	49	M	260	A	260	H	2284	VH	6.1	6.90							21	1.60	32	8.4	4.0	12.9	68.2	14.3	0.5
16	155335QT	83	M	191	M	288	H	2608	VH	5.7	6.80							25	1.61	32	10.4	2.4	11.5	62.6	23.0	0.5
17	155336QT	145	A	238	A	420	VH	3578	VH	6.3	6.95							27	2.74	55	11.7	2.6	15.0	76.7	5.1	0.5
18	155337QT	123	A	366	H	425	VH	3577	VH	6.6	7.00							26	2.05	41	11.2	4.2	15.8	79.6	0.0	0.5
19	155338QT	25	L	116	L	297	H	2678	VH	6.3	7.00							30	1.45	29	8.1	1.8	15.2	82.2	0.0	0.8
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			Tons/Acre		Nitrogen	Phosphate	Potash	Magnesium	Sulfur	Boron	Zinc	Manganese	Iron	Copper
12	WHEAT	80 BUSHELS (Tri-State)			90	98	86							
13	WHEAT	80 BUSHELS (Tri-State)			90	112	* 50							
14	WHEAT	80 BUSHELS (Tri-State)			90	140	86							
15	WHEAT	80 BUSHELS (Tri-State)			90	68	* 40							
16	WHEAT	80 BUSHELS (Tri-State)	0.8		90	40	77							
17	WHEAT	80 BUSHELS (Tri-State)			90		* 42							
18	WHEAT	80 BUSHELS (Tri-State)			90									
19	WHEAT	80 BUSHELS (Tri-State)			90	128	127							
20	WHEAT	80 BUSHELS (Tri-State)			90	40	* 40							
21	WHEAT	80 BUSHELS (Tri-State)			90	118	106							

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			Tons/Acre		Nitrogen	Phosphate	Potash	Magnesium	Sulfur	Boron	Zinc	Manganese	Iron	Copper
22	WHEAT	80 BUSHEL (Tri-State)			90	120	126							

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2	155321QD	67	M	186	M	490	VH	3977	VH	6.8	7.00							24	2.22	44	12.3	1.9	16.6	81.0	0.0	0.4
3	155322QD	45	M	178	M	291	H	2630	VH	6.1	6.90							34	1.37	27	9.3	2.5	13.1	70.8	12.9	0.8
4	155323QD	28	L	225	A	253	H	2419	VH	6.2	6.95							28	1.63	33	8.1	3.6	13.1	75.1	7.5	0.8
5	155324QD	24	L	183	M	288	H	2664	VH	6.1	6.95							23	1.50	30	8.7	2.7	13.7	76.2	6.9	0.6
6	155325QD	53	M	152	M	384	VH	3755	VH	6.8	7.00							32	1.33	27	11.3	1.7	14.2	83.4	0.0	0.6
7	155326QD	54	M	176	M	248	A	2457	VH	5.5	6.65							26	1.60	32	11.7	1.9	8.9	52.7	36.0	0.5
8	155327QD	85	M	350	H	467	VH	4132	VH	6.4	6.95							23	2.58	52	13.4	3.4	14.5	77.2	4.5	0.4
9	155328QD	33	L	142	M	318	VH	2658	VH	6.3	7.00							27	1.45	29	8.2	2.2	16.1	80.9	0.0	0.7
10	155329QD	16	L	127	M	355	VH	2784	VH	6.4	7.00							30	1.66	33	8.7	1.9	17.1	80.3	0.0	0.8
11	155330QD	63	M	260	A	456	VH	3797	VH	6.5	7.00							58	2.06	41	11.9	2.8	16.0	80.1	0.0	1.1

Report values represent available plant nutrients in the soil. Rating Codes: L (Low), M (Medium), A (Adequate), H (High), VH (Very High)

Abbreviations: ENR (Estimated Nitrogen Release), C.E.C. (Cation Exchange Capacity), OM (Organic Matter)

Soil Fertility Recommendations (lbs/A)

Sample ID	Crop	Yield	Lime	Gypsum	N	P	K	Mg	S	B	Zn	Mn	Fe	Cu
2	SOYBEANS	60 BUSHEL (Tri-State)				48	133							
3	SOYBEANS	60 BUSHEL (Tri-State)				48	134							
4	SOYBEANS	60 BUSHEL (Tri-State)				78	100							
5	SOYBEANS	60 BUSHEL (Tri-State)				88	130							
6	SOYBEANS	60 BUSHEL (Tri-State)				48	158							
7	SOYBEANS	60 BUSHEL (Tri-State)	1.6			48	140							
8	SOYBEANS	60 BUSHEL (Tri-State)												
9	SOYBEANS	60 BUSHEL (Tri-State)				66	158							
10	SOYBEANS	60 BUSHEL (Tri-State)				108	170							
11	SOYBEANS	60 BUSHEL (Tri-State)				48	89							

Explanation of Symbols - * (maintenance), % (percent), ppm (parts per million), lbs/A (pounds per acre), lbs/1000 sq. ft. (pounds per 1000 square feet), mmhos/cm (milli-mhos per centimeter), meq (meq/100g: milli-equivalent per 100 grams)

Comments:

MANGANESE SHOULD BE CONSIDERED IN PEAT AND MUCK SOILS WITH PH <5.8; BLACK SANDS AND LAKEBED/DEPRESSIONAL SOILS WITH PH > 6.2. MANGANESE RATE OF 2-10 LBS SHOULD BE APPLIED BUT NOT BROADCASTED. ZINC SHOULD BE BROADCASTED AT A RATE OF 5-10 LBS WHEN PEAT, MUCK, AND MINERAL SOILS ARE >6.5. CONSIDER MOLYBDENUM ON ACID PRAIRIE SOIL. FOLLOW UP WITH TISSUE SAMPLES THROUGHOUT THE GROWING SEASON.

Reported Lime, Phosphate, and Potash recommendations are based on Tri-State Fertilizer Recommendations.

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Soil Analysis Report

Waters Agricultural Laboratories, Inc

2101 Calhoun Rd | Owensboro, KY 42301- | Phone (270) 685-4039

"Improving Growth...
With Science"

WATERS AG - TEST [2005]

Grower: JOHN DOE

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Farm/Field: HOME / HOME

Target pH: 6.5

2101 CALHOUN ROAD

LID: C2D73886645

OWENSBORO, KY 42301

Test Method: Mehlich III - SMP

Received: 10/27/2022

Processed: 10/31/2022

Sample ID	Lab Number	P		K		Mg		Ca		pH		S	B	Zn	Mn	Fe	Cu	Na	OM	ENR	CEC	% Base Saturation				
		lbs/A	L	lbs/A	A	lbs/A	VH	lbs/A	VH	lbs/A	VH	Soil	Buffer	lbs/A	lbs/A	lbs/A	lbs/A	lbs/A	lbs/A	%	lbs/A	meq	K	Mg	Ca	H
12	155331QD	37	L	176	M	321	VH	2920	VH	6.3	7.00							28	1.69	34	8.9	2.5	15.0	81.8	0.0	0.7
13	155332QD	31	L	227	A	440	VH	3890	VH	6.7	7.00							24	2.31	46	11.9	2.4	15.4	81.7	0.0	0.4
14	155333QD	20	L	176	M	331	VH	2744	VH	6.4	7.00							26	1.73	35	8.5	2.6	16.2	80.5	0.0	0.7
15	155334QD	49	M	260	A	260	H	2284	VH	6.1	6.90							21	1.60	32	8.4	4.0	12.9	68.2	14.3	0.5
16	155335QD	83	M	191	M	288	H	2608	VH	5.7	6.80							25	1.61	32	10.4	2.4	11.5	62.6	23.0	0.5
17	155336QD	145	A	238	A	420	VH	3578	VH	6.3	6.95							27	2.74	55	11.7	2.6	15.0	76.7	5.1	0.5
18	155337QD	123	A	366	H	425	VH	3577	VH	6.6	7.00							26	2.05	41	11.2	4.2	15.8	79.6	0.0	0.5
19	155338QD	25	L	116	L	297	H	2678	VH	6.3	7.00							30	1.45	29	8.1	1.8	15.2	82.2	0.0	0.8
20	155339QD	68	M	279	A	417	VH	3521	VH	6.4	6.95							25	2.30	46	11.6	3.1	15.0	76.2	5.2	0.5
21	155340QD	29	L	151	M	376	VH	3078	VH	6.9	7.00							27	1.45	29	9.5	2.0	16.5	80.9	0.0	0.6

Report values represent available plant nutrients in the soil. Rating Codes: L (Low), M (Medium), A (Adequate), H (High), VH (Very High)

Abbreviations: ENR (Estimated Nitrogen Release), C.E.C. (Cation Exchange Capacity), OM (Organic Matter)

Soil Fertility Recommendations (lbs/A)

Sample ID	Crop	Yield	Lime	Gypsum	N	P	K	Mg	S	B	Zn	Mn	Fe	Cu
			Tons/Acre		Nitrogen	Phosphate	Potash	Magnesium	Sulfur	Boron	Zinc	Manganese	Iron	Copper
12	SOYBEANS	60 BUSHEL (Tri-State)				56	135							
13	SOYBEANS	60 BUSHEL (Tri-State)				70	99							
14	SOYBEANS	60 BUSHEL (Tri-State)				98	135							
15	SOYBEANS	60 BUSHEL (Tri-State)				48	89							
16	SOYBEANS	60 BUSHEL (Tri-State)	0.8				126							
17	SOYBEANS	60 BUSHEL (Tri-State)					91							
18	SOYBEANS	60 BUSHEL (Tri-State)												
19	SOYBEANS	60 BUSHEL (Tri-State)				86	176							
20	SOYBEANS	60 BUSHEL (Tri-State)				48	* 89							
21	SOYBEANS	60 BUSHEL (Tri-State)				76	155							

Explanation of Symbols - * (maintenance), % (percent), ppm (parts per million), lbs/A (pounds per acre), lbs/1000 sq. ft. (pounds per 1000 square feet), mmhos/cm (milli-mhos per centimeter), meq (meq/100g: milli-equivalent per 100 grams)

Comments:

MANGANESE SHOULD BE CONSIDERED IN PEAT AND MUCK SOILS WITH PH <5.8; BLACK SANDS AND LAKEBED/DEPRESSIONAL SOILS WITH PH > 6.2. MANGANESE RATE OF 2-10 LBS SHOULD BE APPLIED BUT NOT BROADCASTED. ZINC SHOULD BE BROADCASTED AT A RATE OF 5-10 LBS WHEN PEAT, MUCK, AND MINERAL SOILS ARE >6.5. CONSIDER MOLYBDENUM ON ACID PRAIRIE SOIL. FOLLOW UP WITH TISSUE SAMPLES THROUGHOUT THE GROWING SEASON.

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Soil Analysis Report

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WATERS AG - TEST [2005]

2101 CALHOUN ROAD
OWENSBORO, KY 42301

Grower: JOHN DOE

Farm/Field: HOME / HOME

LID: C2D73886645

Test Method: Mehlich III - SMP

Page 9

Target pH: 6.5

Received: 10/27/2022

Processed: 10/31/2022

Sample ID	Lab Number	P		K		Mg		Ca		pH		S	B	Zn	Mn	Fe	Cu	Na	OM	ENR	CEC	% Base Saturation				
		lbs/A	L	lbs/A	L	lbs/A	A	lbs/A	VH	Soil	Buffer	lbs/A	lbs/A	lbs/A	lbs/A	lbs/A	lbs/A	lbs/A	%	lbs/A	meq	K	Mg	Ca	H	Na
22	155341QD	28	L	109	L	235	A	2091	VH	6.1	7.00							24	1.61	32	6.4	2.2	15.3	81.7	0.0	0.8

Report values represent available plant nutrients in the soil. Rating Codes: L (Low), M (Medium), A (Adequate), H (High), VH (Very High)
Abbreviations: ENR (Estimated Nitrogen Release), C.E.C. (Cation Exchange Capacity), OM (Organic Matter)

Soil Fertility Recommendations (lbs/A)

Sample ID	Crop	Yield	Lime	Gypsum	N	P	K	Mg	S	B	Zn	Mn	Fe	Cu
			Tons/Acre		Nitrogen	Phosphate	Potash	Magnesium	Sulfur	Boron	Zinc	Manganese	Iron	Copper
22	SOYBEANS	60 BUSHEL (Tri-State)				78	175							

Explanation of Symbols - * (maintenance), % (percent), ppm (parts per million), lbs/A (pounds per acre), lbs/1000 sq. ft. (pounds per 1000 square feet), mmhos/cm (milli-mhos per centimeter), meq (meq/100g: milli-equivalent per 100 grams)

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