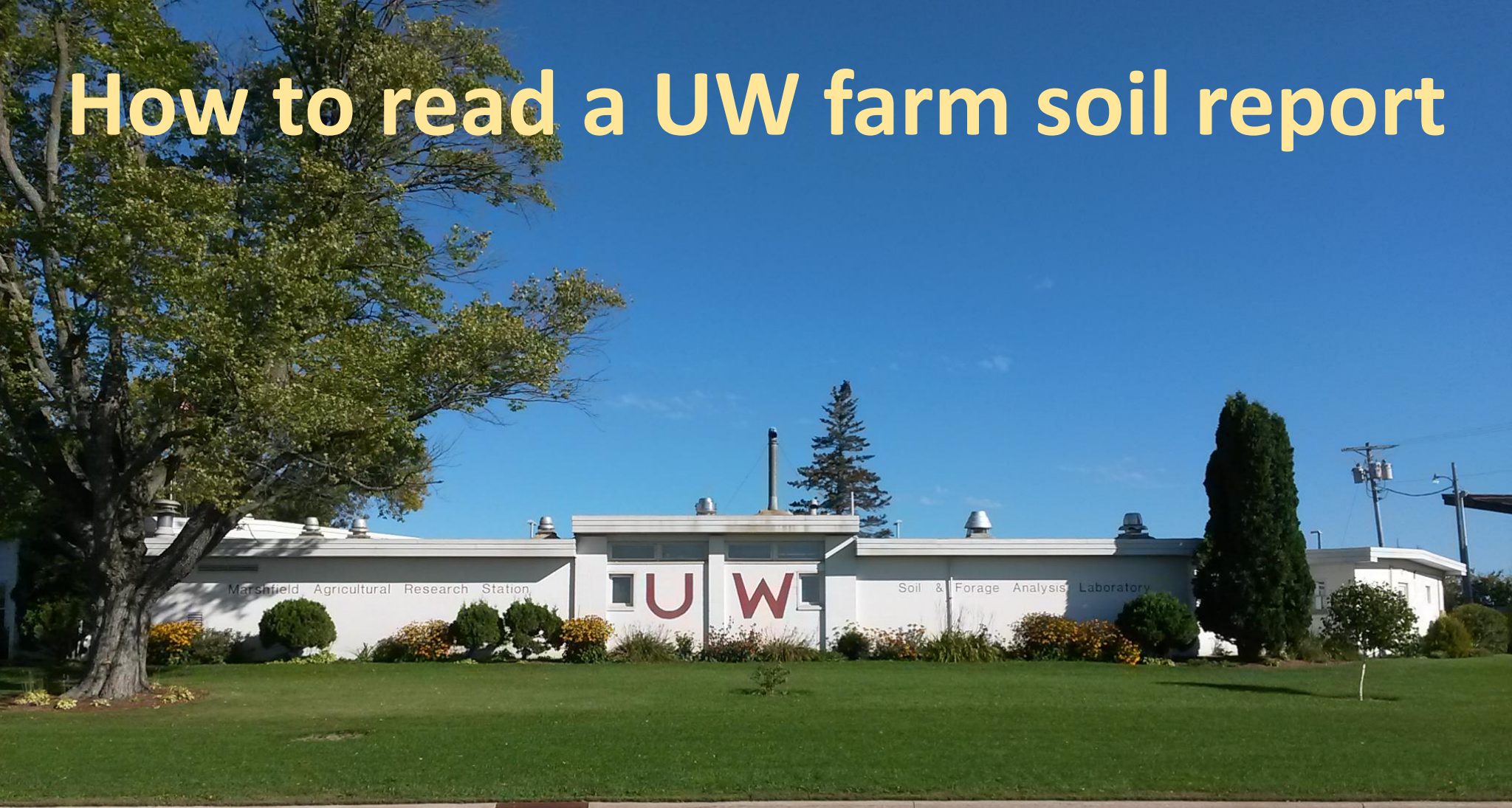
How to read a UW farm soil report



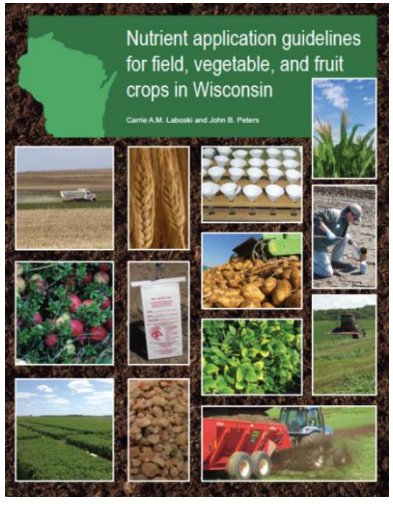
Robert Florence
Lab Director
Soil and Forage Analysis Lab
Marshfield, WI

UW Extension
University of Wisconsin-Extension

Introduction

Use a Wisconsin Dept. of Agriculture, Trade and Consumer Protections (DATCP) certified lab.

Recommendations are based off University of Wisconsin publication Nutrient application guidelines for field, vegetable, and fruit crops in Wisconsin A2809.



Information

Information →

Samples Analyzed By:
UW Soil & Plant Analysis Lab
8452 Mineral Point Road
Verona, WI 53593
(608) 262-4364

LAB #: 12346

SOIL TEST REPORT

COOPERATIVE EXTENSION
University of Wisconsin-Extension
University of Wisconsin-Madison
Department of Soil Science

Results also available on-line at http://uwlab.soils.wisc.edu/reports
lab number: 12346 access code: 9xqfc

This Report is for:
Bucky Badger

County	Account No.
Dane	556996

Date Received	Date Processed
9/1/2011	9/6/2011

Slope	Acres	Plow Depth	Irrigated
0%	10	7"	No

Soil Name: Antigo

Field Name: 1

Previous Crop: no crop

NUTRIENT RECOMMENDATIONS

Cropping Sequence	Yield Goal	Crop Nutrient Need N	Crop Nutrient Need P2O5	Crop Nutrient Need K2O	Legume N	Fertilizer Credit Manure N	Fertilizer Credit P2O5	Fertilizer Credit K2O	Nutrients to Apply N	Nutrients to Apply P2O5	Nutrients to Apply K2O
	per acre	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a
Corn, grain	131-150 bu	see below	0	40	0	0	0	0	see below	0	40
Soybean, grain	46-55 bu	0	0	35	0	0	0	0	0	0	35
Alfalfa, seeding	1-2.5 ton	30	0	105	0	0	0	0	30	0	105
Alfalfa, established	4.6-5.5 ton	0	0	300	0	0	0	0	0	0	300

The lime required for this rotation to reach pH 6.8 is 12 T/a of 60-69 lime or 9 T/a of 80-89 lime.

SUGGESTED N APPLICATION RATES FOR CORN (GRAIN) AT DIFFERENT N:CORN PRICE RATIOS

Previous Crop — Medium/Low Yield Potential Soils	N:Corn Price Ratio ($/lb N:$/bu) 0.05 Rate[1]	0.05 Range	0.10 Rate[1]	0.10 Range	0.15 Rate[1]	0.15 Range	0.20 Rate[1]	0.20 Range
	lb N/a (Total to Apply)[2]							
Corn, Forage legumes, Leguminous vegetables, Green manures[3]	125	110-140	110	100-115	100	95-110	95	85-100
Soybean, Small grains[4]	110	90-125	85	70-95	70	60-80	60	50-70

[1] Rate is the N rate that provides the maximum return to N (MRTN). Range is the range of profitable N rates that provide an economic return to N within $1/a of the MRTN.
[2] These rates are for total N applied including N in starter fertilizer and N used in herbicide applications.
[3] Subtract N credits for forage legumes, leguminous vegetables, green manures and animal manures. This includes 1st, 2nd and 3rd year credits where applicable. Do not subtract N credits for leguminous vegetables on sand and loamy sand soils.
[4] Subtract N credits for animal manures and 2nd year forage legumes.

Guidelines for choosing an appropriate N application rate for corn (grain)

1) If there is more than 50% residue cover at planting, use the upper end of the range.
2) For small grains grown on medium and fine textured soils, the mid to low end of the profitable range is the most appropriate.
3) If 100% of the N will come from organic sources, use the top end of the range. In addition, up to 20 lb N/a in starter fertilizer may be applied in this situation.
4) For medium and fine textured soils with 10% or more organic matter, use the low end of the range; for medium and fine textured soils with less than 2% organic matter, use the high end of the range.
5) If there is a likelihood of residual N, then use the low end of the range or use the high end of the range and subtract preplant nitrate test (PPNT) credits.
6) For corn following small grains on medium and fine textured soils, the middle to low end of the range is most appropriate.

For more information on the new N application rate guidelines for corn see http://uwlab.soils.wisc.edu/pubs/MRTN/

ADDITIONAL INFORMATION

Lime recommendation may not achieve desired pH in 3 years. Retest then and apply as recommended.

If lime has been applied in the last two years, more lime may not be needed due to incomplete reaction.

Recommended rates are the total amount of nutrients to apply (N-P-K), including starter fertilizer.

This soil should be monitored more closely because it has a relatively low potassium buffering capacity.

Starter fertilizer (e.g. 10+20+20 lbs N+P_2O_5+K_2O/a) is advisable for row crops on soils slow to warm in the spring.

Year 1: If corn is harvested for silage instead of grain apply extra 90 lbs K_2O per acre to next crop.

If alfalfa will be maintained for more than three years, increase recommended K_2O by 20% each year.

TEST INTERPRETATION

Cropping Sequence — Very Low — Low — Optimum — High — Very High — Excessive

Corn, grain
PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
KKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKK

Soybean, grain
PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
KKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKK

Alfalfa, seeding
PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
KKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKK

Alfalfa, established
PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
KKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKK

Rotation pH
XXXXXXX

LABORATORY ANALYSIS

Sample Identification	Soil pH	O.M %	Phosphorus ppm	Potassium ppm	60-69 Lime Req (T/a)	Calcium ppm	Magnesium ppm	Est. CEC (cmol/kg)	Boron ppm	Manganese ppm	Zinc ppm	Sulfate-Sulfur ppm	Sulfur Avail. Index	Texture Code	Sample Density	Buffer pH
1	6.0	1.9	34	128	36.8									2	1.00	5.6
Adjusted Averages	6.0	1.9	34	128												

Recommendations based on UW Extension publication 'Nutrient Application Rate Guidelines for Field, Vegetable, and Fruit Crops in Wisconsin' (A2809).

Farmer's Copy

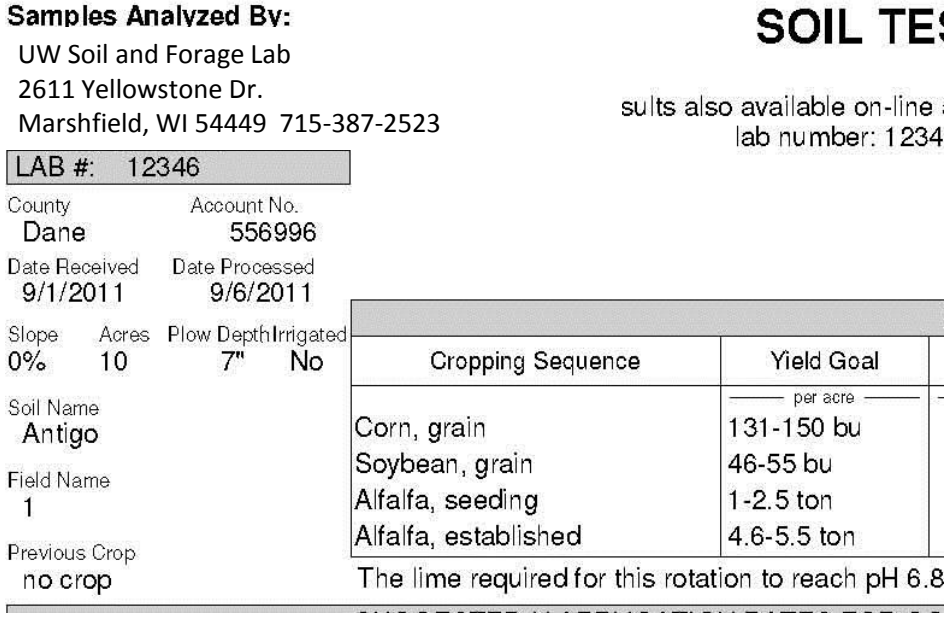
Information

Check That your information is correct

lime recommendations are based off Plow depth, crop rotation, and soil type

N rate adjustments are based off previous crop, soil series, county, irrigation, and tile drainage

P and K nutrient recommendations are based off soil type



Samples Analyzed By:
UW Soil and Forage Lab
2611 Yellowstone Dr.
Marshfield, WI 54449 715-387-2523

SOIL TE

sults also available on-line
lab number: 1234

LAB #: 12346

County	Account No.
Dane	556996

Date Received	Date Processed
9/1/2011	9/6/2011

Slope	Acres	Plow Depth	Irrigated
0%	10	7"	No

Soil Name
Antigo

Field Name
1

Previous Crop
no crop

Cropping Sequence	Yield Goal (per acre)
Corn, grain	131-150 bu
Soybean, grain	46-55 bu
Alfalfa, seeding	1-2.5 ton
Alfalfa, established	4.6-5.5 ton

The lime required for this rotation to reach pH 6.8

UW Extension
University of Wisconsin-Extension

Nutrient Recommendations

Information

P, K, and lime Recommendations

Samples Analyzed By:
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COOPERATIVE EXTENSION
University of Wisconsin-Extension
University of Wisconsin-Madison
Department of Soil Science

This Report is for:
Bucky Badger

LAB #: 12346

County: Dane — Account No. 556996
Date Received: 9/1/2011 — Date Processed: 9/6/2011
Slope: 0% — Acres: 10 — Plow Depth: 7" — Irrigated: N
Soil Name: Antigo
Field Name: 1
Previous Crop: no crop

NUTRIENT RECOMMENDATIONS

Cropping Sequence	Yield Goal	Crop Nutrient Need N	P2O5	K2O	Legume N	Fertilizer Credit Manure N	P2O5	K2O	Nutrients to Apply N	P2O5	K2O
	per acre	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a
Corn, grain	131-150 bu	see below	0	40	0	0	0	0	see below	0	40
Soybean, grain	46-55 bu	0	0	35	0	0	0	0	0	0	35
Alfalfa, seeding	1-2.5 ton	30	0	105	0	0	0	0	30	0	105
Alfalfa, established	4.6-5.5 ton	0	0	300	0	0	0	0	0	0	300

The lime required for this rotation to reach pH 6.8 is 12 T/a of 60-69 lime or 9 T/a of 80-89 lime.

SUGGESTED N APPLICATION RATES FOR CORN (GRAIN) AT DIFFERENT N:CORN PRICE RATIOS

Previous Crop — Medium/Low Yield Potential Soils	0.05 Rate[1]	0.05 Range	0.10 Rate[1]	0.10 Range	0.15 Rate[1]	0.15 Range	0.20 Rate[1]	0.20 Range
	lb N/a (Total to Apply)[2]							
Corn, Forage legumes, Leguminous vegetables, Green manures[3]	125	110-140	110	100-115	100	95-110	95	85-100
Soybean, Small grains[4]	110	90-125	85	70-95	70	60-80	60	50-70

(N:Corn Price Ratio ($/lb N:$/bu))

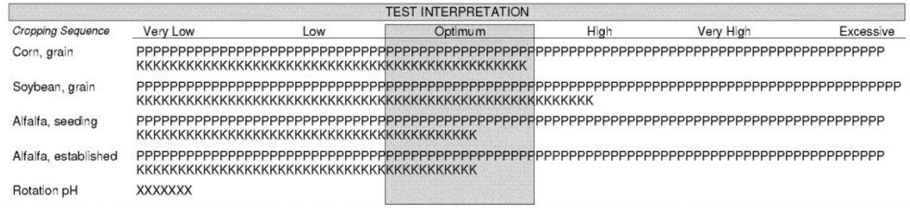
[1] Rate is the N rate that provides the maximum return to N (MRTN). Range is the range of profitable N rates that provide an economic return to N within $1/a of the MRTN.
[2] These rates are for total N applied including N in starter fertilizer and N used in herbicide applications.
[3] Subtract N credits for forage legumes, leguminous vegetables, green manures and animal manures. This includes 1st, 2nd and 3rd year credits where applicable. Do not subtract N credits for leguminous vegetables on sand and loamy sand soils.
[4] Subtract N credits for animal manures and 2nd year forage legumes.

Guidelines for choosing an appropriate N application rate for corn (grain)
1) If there is more than 50% residue cover at planting, use the upper end of the range.
2) For small grains grown on medium and fine textured soils, the mid to low end of the profitable range is the most appropriate.
3) If 100% of the N will come from organic sources, use the top end of the range. In addition, up to 20 lb N/a in starter fertilizer may be applied in this situation.
4) For medium and fine textured soils with 10% or more organic matter, use the low end of the range; for medium and fine textured soils with less than 2% organic matter, use the high end of the range.
5) If there is a likelihood of residual N, then use the low end of the range or use the high end of the range and subtract preplant nitrate test (PPNT) credits.
6) For corn following small grains on medium and fine textured soils, the middle to low end of the range is most appropriate.
For more information on the new N application rate guidelines for corn see http://uwlab.soils.wisc.edu/pubs/MRTN/

ADDITIONAL INFORMATION

Lime recommendation may not achieve desired pH in 3 years. Retest then and apply as recommended.
If lime has been applied in the last two years, more lime may not be needed due to incomplete reaction.
Recommended rates are the total amount of nutrients to apply (N-P-K), including starter fertilizer.
This soil should be monitored more closely because it has a relatively low potassium buffering capacity.
Starter fertilizer (e.g. 10+20+20 lbs N+P_2O_5+K_2O/a) is advisable for row crops on soils slow to warm in the spring.
Year 1: If corn is harvested for silage instead of grain apply extra 90 lbs K_2O per acre to next crop.
If alfalfa will be maintained for more than three years, increase recommended K_2O by 20% each year.

TEST INTERPRETATION



LABORATORY ANALYSIS

Sample Identification	Soil pH	O.M %	Phosphorus ppm	Potassium ppm	60-69 Lime Req (T/a)	Calcium ppm	Magnesium ppm	Est. CEC (cmol/kg)	Boron ppm	Manganese ppm	Zinc ppm	Sulfate-Sulfur ppm	Sulfur Avail. Index	Texture Code	Sample Density	Buffer pH
1	6.0	1.9	34	128	36.8									2	1.00	5.6
Adjusted Averages	6.0	1.9	34	128												

Recommendations based on UW Extension publication 'Nutrient Application Rate Guidelines for Field, Vegetable, and Fruit Crops in Wisconsin' (A2809).

Farmer's Copy

UW Extension
University of Wisconsin-Extension

Nutrient Recommendations

NUTRIENT RECOMMENDATIONS											
Cropping Sequence	Yield Goal	Crop Nutrient Need			Fertilzer Credit				Nutrients to Apply		
		N	P2O5	K2O	Legume N	Manure N	P2O5	K2O	N	P2O5	K2O
	per acre	lbs/a			lbs/a	lbs/a			lbs/a		
Corn, grain	131-150 bu	see below	0	40	0	0	0	0	see below	0	40
Soybean, grain	46-55 bu	0	0	35	0	0	0	0	0	0	35
Alfalfa, seeding	1-2.5 ton	30	0	105	0	0	0	0	30	0	105
Alfalfa, established	4.6-5.5 ton	0	0	300	0	0	0	0	0	0	300

The lime required for this rotation to reach pH 6.8 is 12 T/a of 60-69 lime or 9 T/a of 80-89 lime.

Nutrient needs – Based off soil test values and crop removal rates

Fertilizer credits – From previous crop or manure applications

Nutrients to apply – Difference between nutrient needs and fertilizer credits
Given in lbs. of N, P_2O_5 or K_2O equivalents / acre

Lime requirement – To the most limiting crop in rotation
Based off current pH, buffer pH, and target pH
Given in Tons/acre of 60-69 or 80-89 grade lime

Nitrogen Rates

Information

P, K, and lime Recommendations

N rates →

Samples Analyzed By:
UW Soil & Plant Analysis Lab
8452 Mineral Point Road
Verona, WI 53593
(608) 262-4364

SOIL TEST REPORT

COOPERATIVE EXTENSION
University of Wisconsin-Extension
University of Wisconsin-Madison
Department of Soil Science

Results also available on-line at http://uwlab.soils.wisc.edu/reports
lab number: 12346 access code: 9xqfc

This Report is for:
Bucky Badger

LAB #: 12346

County: Dane
Account No.: 556996
Date Received: 9/1/2011
Date Processed: 9/6/2011
Slope: 0%
Acres: 10
Plow Depth: 7"
Irrigated: No
Soil Name: Antigo
Field Name: 1
Previous Crop: no crop

NUTRIENT RECOMMENDATIONS

Cropping Sequence	Yield Goal	Crop Nutrient Need N	Crop Nutrient Need P2O5	Crop Nutrient Need K2O	Legume N	Fertilizer Credit Manure N	Fertilizer Credit P2O5	Fertilizer Credit K2O	Nutrients to Apply N	Nutrients to Apply P2O5	Nutrients to Apply K2O
	per acre	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a
Corn, grain	131-150 bu	see below	0	40	0	0	0	0	see below	0	40
Soybean, grain	46-55 bu	0	0	35	0	0	0	0	0	0	35
Alfalfa, seeding	1-2.5 ton	30	0	105	0	0	0	0	30	0	105
Alfalfa, established	4.6-5.5 ton	0	0	300	0	0	0	0	0	0	300

The lime required for this rotation to reach pH 6.8 is 12 T/a of 60-69 lime or 9 T/a of 80-89 lime.

SUGGESTED N APPLICATION RATES FOR CORN (GRAIN) AT DIFFERENT N:CORN PRICE RATIOS

Previous Crop — Medium/Low Yield Potential Soils	N:Corn Price Ratio ($/lb N:$/bu) 0.05 Rate[1]	0.05 Range	0.10 Rate[1]	0.10 Range	0.15 Rate[1]	0.15 Range	0.20 Rate[1]	0.20 Range
	lb N/a (Total to Apply)[2]							
Corn, Forage legumes, Leguminous vegetables, Green manures[3]	125	110-140	110	100-115	100	95-110	95	85-100
Soybean, Small grains[4]	110	90-125	85	70-95	70	60-80	60	50-70

[1] Rate is the N rate that provides the maximum return to N (MRTN). Range is the range of profitable N rates that provide an economic return to N within $1/a of the MRTN.
[2] These rates are for total N applied including N in starter fertilizer and N used in herbicide applications.
[3] Subtract N credits for forage legumes, leguminous vegetables, green manures and animal manures. This includes 1st, 2nd and 3rd year credits where applicable. Do not subtract N credits for leguminous vegetables on sand and loamy sand soils.
[4] Subtract N credits for animal manures and 2nd year forage legumes.

Guidelines for choosing an appropriate N application rate for corn (grain)

1) If there is more than 50% residue cover at planting, use the upper end of the range.
2) For small grains grown on medium and fine textured soils, the mid to low end of the profitable range is the most appropriate.
3) If 100% of the N will come from organic sources, use the top end of the range. In addition, up to 20 lb N/a in starter fertilizer may be applied in this situation.
4) For medium and fine textured soils with 10% or more organic matter, use the low end of the range; for medium and fine textured soils with less than 2% organic matter, use the high end of the range.
5) If there is a likelihood of residual N, then use the low end of the range or use the high end of the range and subtract preplant nitrate test (PPNT) credits.
6) For corn following small grains on medium and fine textured soils, the middle to low end of the range is most appropriate.

For more information on the new N application rate guidelines for corn see http://uwlab.soils.wisc.edu/pubs/MRTN/

ADDITIONAL INFORMATION

Lime recommendation may not achieve desired pH in 3 years. Retest then and apply as recommended.

If lime has been applied in the last two years, more lime may not be needed due to incomplete reaction.

Recommended rates are the total amount of nutrients to apply (N-P-K), including starter fertilizer.

This soil should be monitored more closely because it has a relatively low potassium buffering capacity.

Starter fertilizer (e.g. 10+20+20 lbs $N+P_2O_5+K_2O$/a) is advisable for row crops on soils slow to warm in the spring.

Year 1: If corn is harvested for silage instead of grain apply extra 90 lbs K_2O per acre to next crop.

If alfalfa will be maintained for more than three years, increase recommended K_2O by 20% each year.

TEST INTERPRETATION

Cropping Sequence — Very Low — Low — Optimum — High — Very High — Excessive

Corn, grain
PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
KKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKK

Soybean, grain
PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
KKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKK

Alfalfa, seeding
PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
KKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKK

Alfalfa, established
PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
KKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKK

Rotation pH
XXXXXXX

LABORATORY ANALYSIS

Sample Identification	Soil pH	O.M %	Phosphorus ppm	Potassium ppm	60-69 Lime Req (T/a)	Calcium ppm	Magnesium ppm	Est. CEC (cmol/kg)	Boron ppm	Manganese ppm	Zinc ppm	Sulfate-Sulfur ppm	Sulfur Avail. Index	Texture Code	Sample Density	Buffer pH
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Farmer's Copy

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University of Wisconsin-Extension

Nitrogen Rates

SUGGESTED N APPLICATION RATES FOR CORN (GRAIN) AT DIFFERENT N:CORN PRICE RATIOS								
Previous Crop	N:Corn Price Ratio ($/lb N:$/bu)							
Medium/Low Yield Potential Soils	0.05		0.10		0.15		0.20	
	Rate[1]	Range	Rate[1]	Range	Rate[1]	Range	Rate[1]	Range
	lb N/a (Total to Apply)[2]							
Corn, Forage legumes, Leguminous vegetables, Green manures[3]	125	110-140	110	100-115	100	95-110	95	85-100
Soybean, Small grains[4]	110	90-125	85	70-95	70	60-80	60	50-70

[1] Rate is the N rate that provides the maximum return to N (MRTN). Range is the range of profitable N rates that provide an economic return to N within $1/a of the MRTN.
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[3] Subtract N credits for forage legumes, leguminous vegetables, green manures and animal manures. This includes 1st, 2nd and 3rd year credits where applicable. Do not subtract N credits for leguminous vegetables on sand and loamy sand soils.
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Guidelines for choosing an appropriate N application rate for corn (grain)

1) If there is more than 50% residue cover at planting, use the upper end of the range.
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4) For medium and fine textured soils with 10% or more organic matter, use the low end of the range; for medium and fine textured soils with less than 2% organic matter, use the high end of the range.
5) If there is a likelihood of residual N, then use the low end of the range or use the high end of the range and subtract preplant nitrate test (PPNT) credits.
6) For corn following small grains on medium and fine textured soils, the middle to low end of the range is most appropriate.

For more information on the new N application rate guidelines for corn see http://uwlab.soils.wisc.edu/pubs/MRTN/

For crops other than corn grain and wheat, a single N rate is given.

Comments

Information

P, K, and lime Recommendations

N rates

Comments

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Verona, WI 53593
(608) 262-4364

SOIL TEST REPORT

Results also available on-line at http://uwlab.soils.wisc.edu/reports
lab number: 12346 access code: 9xqfc

COOPERATIVE EXTENSION
University of Wisconsin-Extension
University of Wisconsin-Madison
Department of Soil Science

This Report is for:
Bucky Badger

LAB #: 12346

County: Dane
Account No.: 556996
Date Received: 9/1/2011
Date Processed: 9/6/2011
Slope: 0% Acres: 10 Plow Depth: 7" Irrigated: No
Soil Name: Antigo
Field Name: 1
Previous Crop: no crop

NUTRIENT RECOMMENDATIONS

Cropping Sequence	Yield Goal	Crop Nutrient Need N	Crop Nutrient Need P2O5	Crop Nutrient Need K2O	Legume N	Fertilizer Credit Manure N	Fertilizer Credit P2O5	Fertilizer Credit K2O	Nutrients to Apply N	Nutrients to Apply P2O5	Nutrients to Apply K2O
	per acre	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a
Corn, grain	131-150 bu	see below	0	40	0	0	0	0	see below	0	40
Soybean, grain	46-55 bu	0	0	35	0	0	0	0	0	0	35
Alfalfa, seeding	1-2.5 ton	30	0	105	0	0	0	0	30	0	105
Alfalfa, established	4.6-5.5 ton	0	0	300	0	0	0	0	0	0	300

The lime required for this rotation to reach pH 6.8 is 12 T/a of 60-69 lime or 9 T/a of 80-89 lime.

SUGGESTED N APPLICATION RATES FOR CORN (GRAIN) AT DIFFERENT N:CORN PRICE RATIOS

Previous Crop — Medium/Low Yield Potential Soils	N:Corn Price Ratio ($/lb N:$/bu) 0.05 Rate[1]	0.05 Range	0.10 Rate[1]	0.10 Range	0.15 Rate[1]	0.15 Range	0.20 Rate[1]	0.20 Range
	lb N/a (Total to Apply)[2]							
Corn, Forage legumes, Leguminous vegetables, Green manures[3]	125	110-140	110	100-115	100	95-110	95	85-100
Soybean, Small grains[4]	110	90-125	85	70-95	70	60-80	60	50-70

[1] Rate is the N rate that provides the maximum return to N (MRTN). Range is the range of profitable N rates that provide an economic return to N within $1/a of the MRTN.
[2] These rates are for total N applied including N in starter fertilizer and N used in herbicide applications.
[3] Subtract N credits for forage legumes, leguminous vegetables, green manures and animal manures. This includes 1st, 2nd and 3rd year credits where applicable. Do not subtract N credits for leguminous vegetables on sand and loamy sand soils.
[4] Subtract N credits for animal manures and 2nd year forage legumes.

Guidelines for choosing an appropriate N application rate for corn (grain)

1) If there is more than 50% residue cover at planting, use the upper end of the range.
2) For small grains grown on medium and fine textured soils, the mid to low end of the profitable range is the most appropriate.
3) If 100% of the N will come from organic sources, use the top end of the range. In addition, up to 20 lb N/a in starter fertilizer may be applied in this situation.
4) For medium and fine textured soils with 10% or more organic matter, use the low end of the range; for medium and fine textured soils with less than 2% organic matter, use the high end of the range.
5) If there is a likelihood of residual N, then use the low end of the range or use the high end of the range and subtract preplant nitrate test (PPNT) credits.
6) For corn following small grains on medium and fine textured soils, the middle to low end of the range is most appropriate.

For more information on the new N application rate guidelines for corn see http://uwlab.soils.wisc.edu/pubs/MRTN/

ADDITIONAL INFORMATION

Lime recommendation may not achieve desired pH in 3 years. Retest then and apply as recommended.

If lime has been applied in the last two years, more lime may not be needed due to incomplete reaction.

Recommended rates are the total amount of nutrients to apply (N-P-K), including starter fertilizer.

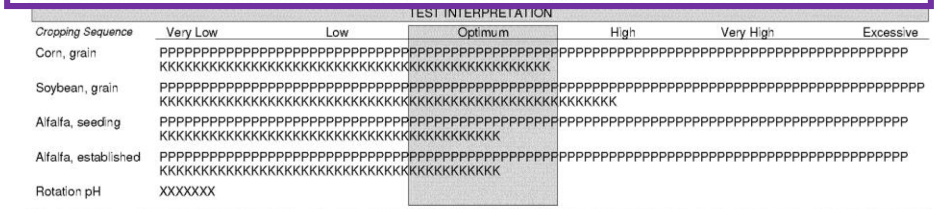
This soil should be monitored more closely because it has a relatively low potassium buffering capacity.

Starter fertilizer (e.g. 10+20+20 lbs N+P_2O_5+K_2O/a) is advisable for row crops on soils slow to warm in the spring.

Year 1: If corn is harvested for silage instead of grain apply extra 90 lbs K_2O per acre to next crop.

If alfalfa will be maintained for more than three years, increase recommended K_2O by 20% each year.

TEST INTERPRETATION



LABORATORY ANALYSIS

Sample Identification	Soil pH	O.M %	Phosphorus ppm	Potassium ppm	60-69 Lime Req (T/a)	Calcium ppm	Magnesium ppm	Est. CEC (cmol/kg)	Boron ppm	Manganese ppm	Zinc ppm	Sulfate-Sulfur ppm	Sulfur Avail. Index	Texture Code	Sample Density	Buffer pH
1	6.0	1.9	34	128	36.8									2	1.00	5.6
Adjusted Averages	6.0	1.9	34	128												

Recommendations based on UW Extension publication 'Nutrient Application Rate Guidelines for Field, Vegetable, and Fruit Crops in Wisconsin' (A2809).

Farmer's Copy

UW Extension
University of Wisconsin-Extension

Comments

ADDITIONAL INFORMATION
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Important notes on:

- lime and nutrient applications
- Alternatives one may choose
- Note on rotational considerations
- Can save you time and money so please read

Test Results

Information

P, K, and lime Recommendations

N rates

Comments

Test results →

Samples Analyzed By:
UW Soil & Plant Analysis Lab
8452 Mineral Point Road
Verona, WI 53593
(608) 262-4364

SOIL TEST REPORT

COOPERATIVE EXTENSION
University of Wisconsin-Extension
University of Wisconsin-Madison
Department of Soil Science

Results also available on-line at http://uwlab.soils.wisc.edu/reports
lab number: 12346 access code: 9xqfc

This Report is for:
Bucky Badger

LAB #: 12346

County: Dane | Account No.: 556996
Date Received: 9/1/2011 | Date Processed: 9/6/2011
Slope: 0% | Acres: 10 | Plow Depth: 7" | Irrigated: No
Soil Name: Antigo
Field Name: 1
Previous Crop: no crop

NUTRIENT RECOMMENDATIONS

Cropping Sequence	Yield Goal	Crop Nutrient Need			Fertilizer Credit				Nutrients to Apply		
		N	P2O5	K2O	Legume N	Manure N	P2O5	K2O	N	P2O5	K2O
	per acre	lbs/a			lbs/a	lbs/a			lbs/a		
Corn, grain	131-150 bu	see below	0	40	0	0	0	0	see below	0	40
Soybean, grain	46-55 bu	0	0	35	0	0	0	0	0	0	35
Alfalfa, seeding	1-2.5 ton	30	0	105	0	0	0	0	30	0	105
Alfalfa, established	4.6-5.5 ton	0	0	300	0	0	0	0	0	0	300

The lime required for this rotation to reach pH 6.8 is 12 T/a of 60-69 lime or 9 T/a of 80-89 lime.

SUGGESTED N APPLICATION RATES FOR CORN (GRAIN) AT DIFFERENT N:CORN PRICE RATIOS

Previous Crop — Medium/Low Yield Potential Soils	N:Corn Price Ratio ($/lb N:$/bu) 0.05		0.10		0.15		0.20	
	Rate[1]	Range	Rate[1]	Range	Rate[1]	Range	Rate[1]	Range
	lb N/a (Total to Apply)[2]							
Corn, Forage legumes, Leguminous vegetables, Green manures[3]	125	110-140	110	100-115	100	95-110	95	85-100
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If alfalfa will be maintained for more than three years, increase recommended K_2O by 20% each year.

TEST INTERPRETATION

Cropping Sequence — Very Low — Low — Optimum — High — Very High — Excessive

Corn, grain
PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
KKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKK

Soybean, grain
PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
KKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKK

Alfalfa, seeding
PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
KKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKK

Alfalfa, established
PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
KKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKK

Rotation pH
XXXXXXX

LABORATORY ANALYSIS

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Adjusted Averages	6.0	1.9	34	128												

UW Extension
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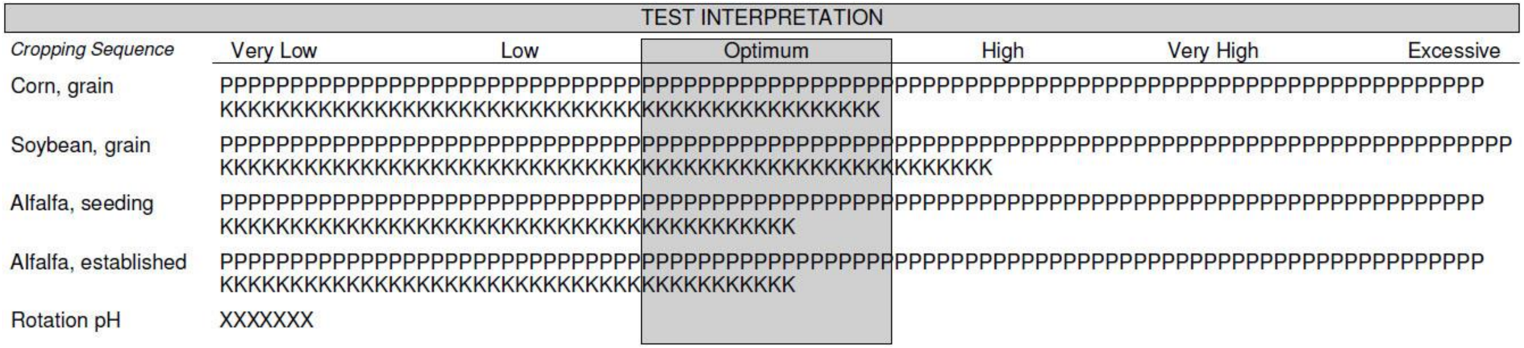
Test Results



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Adjusted Averages	6.0	1.9	34	128												

Graph: Soil test P and K levels for each crop
Rotation pH

Table: Raw result values

University of Wisconsin-Extension

Questions?

Robert Florence
Rflorence@wisc.edu
715-387-2523 x 13

Lab Director
UW- Soil and Forage Analysis Lab
2611 Yellowstone Dr.
Marshfield, WI 54449

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