



Triangle Brick

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July 25, 2012

North Carolina Department of Environment and Natural Resources

Division of Waste Management

1646 Mail Service Center

Raleigh, NC 27699-1646



Dear Mr. Brad Bailey,

I am writing to submit an annual report on behalf of Triangle Brick Company, Merry Oaks Plant, for the land application of the limestone by-product that we generate. This is in accordance with the BMP plan that was approved on June 2, 2009 by Michael E. Scott.

Triangle Brick Company has distributed 125.69 tons of limestone by-product from July 1, 2011 thru June 30, 2012. Mr. Tony Ragan has land applied 90 tons of material during this time (see attached documentation provided by Mr. Ragan). 250 tons of material is currently held in storage to be applied in the current year.

Please find enclosed Waste Analysis Reports from North Carolina Department of Agriculture & Consumer Services.

Sincerely,

Ricky Merritt

Director of Engineering

Triangle Brick Company

3/8 Chemical Limestone
Franklin Minerals

Delivery Date	Ticket #	Kiln #	Qty. (Tons)	Recv'd by:
8/13/2011	21601	1 & 2	25.31	JW
9/29/2011	26195	1 & 2	25.01	BR
11/11/2011	30241	1 & 2	24.78	JW
3/29/2012	41708	3	25.35	BR
5/15/2012	104919	3	25.24	JW

125.69

125.69	Total
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To: Triangle Brick

Lime Report

July 2011—July 2012

90 tons spread on 30 acres new ground

250 tons –stored

Ragan Farms
Tony Ragan
4507 Lower River Rd
Sanford, NC 27330
919-776-7061



Diagnostic

Waste Report

Client: Triangle Brick Co.
294 King Rd
Moncure, NC 27559

Advisor: USDA-NRCS-Chatham
PO Box 309
Pittsboro, NC 27312

County: Chatham

[Links to Helpful Information](#)

Sampled:

Received: 07/13/2011

Completed: 08/10/2011

Farm:

Sample Information	Nutrient and Other Measurements												
	Nitrogen (N) (ppm)	P (ppm)	K (ppm)	Ca (ppm)	Mg (ppm)	S (ppm)	Fe (ppm)	Mn (ppm)	Zn (ppm)	Cu (ppm)	B (ppm)	Na (ppm)	C (ppm)
Sample ID: TBCDLA	Total N	149	67.6	527	229000	3900	3950	814	62.9	77.9	2.82	534	587
Waste Code: SAO	Total Kjeldahl N												
Description: Indust.-Stack Ash	Inorganic N		pH	DM (%)	SS (10 ⁻⁵ S/cm)	EC (mS/cm)			CCE (%)		ALE(tons)		C:N
Comments:	NH ₄ -N	7.08	99.7						69.0		1.31		
	NO ₃ -N												
	Organic N		Ni (ppm)	Cd (ppm)	Pb (ppm)	Al (ppm)	Se (ppm)	Li (ppm)	As (ppm)	Cr (ppm)	Co (ppm)	Cl (ppm)	Mo (ppm)
	Urea	1.80	0.33	0									

Application Method	Estimate of Nutrients Available for First Crop (lb / ton)											Other Elements (lb / ton)							
	N	P ₂ O ₅	K ₂ O	Ca	Mg	S	Fe	Mn	Zn	Cu	B	Mo	Cl	Na	Ni	Cd	Pb	Se	Li
Broadcast		0.22	1.01	320	5.44	5.52	1.14	0.09	0.11	T	0.75		1.17	T	T	0			
Soil Integrated		0.25	1.14	365	6.22	6.30	1.30	0.10	0.12	T	0.85		1.17	T	T	0			

Agronomist's Comments:

Completed: 7/15/2011

The waste product has a high neutralizing value and should only be applied at rates needed to increase soil pH to the desired range. The ALE indicates the amount of the waste required to equal the neutralizing value of one ton of agricultural lime.



Reprogramming of the laboratory-information-management system that makes this report possible is being funded through a grant from the North Carolina Tobacco Trust Fund Commission.

Thank you for using agronomic services to manage nutrients and safeguard environmental quality.
- Steve Troxler, Commissioner of Agriculture.



Diagnostic

Waste Report

Client: Triangle Brick Co.
294 King Rd
Moncure, NC 27559

Advisor: USDA-NRCS-Chatham
PO Box 309
Pittsboro, NC 27312

County: Chatham

[Links to Helpful Information](#)

Sampled: Received: 10/13/2011 Completed: 11/08/2011 Farm:

Sample Information	Nutrient and Other Measurements																		
Sample ID: TBCDLA Waste Code: SAO Description: Indust.-Stack Ash Comments:	Nitrogen (N) (ppm)	P (ppm)	K (ppm)	Ca (ppm)	Mg (ppm)	S (ppm)	Fe (ppm)	Mn (ppm)	Zn (ppm)	Cu (ppm)	B (ppm)	Na (ppm)	C (ppm)						
	Total N	152	71.2	467	243000	3990	3210	669	65.4	37.1	2.46	404	596						
	Total Kjeldahl N	-----																	
	Inorganic N	pH	DM (%)	SS (10 ⁻⁵ S/cm)	EC (mS/cm)	CCE (%)	ALE(tons)	C:N											
	NH ₄ -N	7.29	99.8			75.0	1.20												
	NO ₃ -N																		
	Organic N	Ni (ppm)	Cd (ppm)	Pb (ppm)	Al (ppm)	Se (ppm)	Li (ppm)	As (ppm)	Cr (ppm)	Co (ppm)	Cl (ppm)	Mo (ppm)							
	Urea	0.30	0.42	0															
Application Method	Estimate of Nutrients Available for First Crop (lb / ton)											Other Elements (lb / ton)							
	N	P ₂ O ₅	K ₂ O	Ca	Mg	S	Fe	Mn	Zn	Cu	B	Mo	Cl	Na	Ni	Cd	Pb	Se	Li
	Broadcast	0.23	0.89	339	5.57	4.49	0.93	0.09	0.05	T	0.56			1.19	T	T	0		
Soil Integrated	0.26	1.01	388	6.37	5.13	1.07	0.10	0.06	T	0.64			1.19	T	T	0			

Agronomist's Comments:

Completed: 10/17/2011

The waste product has a high neutralizing value and should only be applied at rates needed to increase soil pH to the desired range. The ALE indicates the amount of the waste required to equal the neutralizing value of one ton of agricultural lime.



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- Steve Troxler, Commissioner of Agriculture.



Diagnostic

Waste Report

Client: Triangle Brick Co.
294 King Rd
Moncure, NC 27559

Advisor: USDA-NRCS-Chatham
PO Box 309
Pittsboro, NC 27312

County: Chatham

[Links to Helpful Information](#)

Sampled:

Received: 01/27/2012

Completed: 02/24/2012

Farm:

Sample Information	Nutrient and Other Measurements												
	Nitrogen (N) (ppm)	P (ppm)	K (ppm)	Ca (ppm)	Mg (ppm)	S (ppm)	Fe (ppm)	Mn (ppm)	Zn (ppm)	Cu (ppm)	B (ppm)	Na (ppm)	C (ppm)
Sample ID: TBCDLA	Total N	265	53.1	617	254000	4000	3730	1040	76.6	111	2.03	922	1150
Waste Code: SAO	Total Kjeldahl N												
Description: Indust.-Stack Ash	Inorganic N		pH	DM (%)	SS (10 ⁻⁵ S/cm)	EC (mS/cm)			CCE (%)		ALE(tons)		C:N
Comments:	NH ₄ -N	7.39	99.7						8.50		10.6		
	NO ₃ -N												
	Organic N		Ni (ppm)	Cd (ppm)	Pb (ppm)	Al (ppm)	Se (ppm)	Li (ppm)	As (ppm)	Cr (ppm)	Co (ppm)	Cl (ppm)	Mo (ppm)
	Urea	0.91	0.20	0									

Application Method	Estimate of Nutrients Available for First Crop (lb / ton)											Other Elements (lb / ton)						
	N	P ₂ O ₅	K ₂ O	Ca	Mg	S	Fe	Mn	Zn	Cu	B	Mo	Cl	Na	Ni	Cd	Pb	Se
Broadcast		0.17	1.18	354	5.59	5.20	1.45	0.11	0.15	T	1.29		2.29	T	T	0		
Soil Integrated		0.19	1.33	405	6.39	5.94	1.66	0.12	0.18	T	1.47		2.29	T	T	0		

Agronomist's Comments:

Completed: 1/31/2012

Neutralizing value is very low. The waste product cannot be economically used as a liming material. Application rates should be based on crop nutrient requirement.

The waste product contains a large amount of boron. Application rate should be limited by boron tolerance of the crop. For field crops, broadcast no more than 5 lbs boron per acre.



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Thank you for using agronomic services to manage nutrients and safeguard environmental quality.
- Steve Troxler, Commissioner of Agriculture.



Diagnostic Waste Report

Client: Triangle Brick Co.
294 King Rd
Moncure, NC 27559

Advisor: USDA-NRCS-Chatham
PO Box 309
Pittsboro, NC 27312

County: Chatham

[Links to Helpful Information](#)

Sampled: Received: 04/13/2012 Completed: 05/08/2012 Farm:

Sample Information	Nutrient and Other Measurements												
	Nitrogen (N) (ppm)	P (ppm)	K (ppm)	Ca (ppm)	Mg (ppm)	S (ppm)	Fe (ppm)	Mn (ppm)	Zn (ppm)	Cu (ppm)	B (ppm)	Na (ppm)	C (ppm)
Sample ID: TBCDLA	Total N	479	79.7	716	240000	3990	5280	823	87.9	163	3.82	526	673
Waste Code: SAO	Total Kjeldahl N												
Description: Indust.-Stack Ash	Inorganic N												
Comments:	NH4-N	7.45	99.8							68.5		1.32	
	NO3-N												
	Organic N												
	Urea	0.94	0.70	0									

Application Method	Estimate of Nutrients Available for First Crop (lb / ton)											Other Elements (lb / ton)							
	N	P2O5	K2O	Ca	Mg	S	Fe	Mn	Zn	Cu	B	Mo	Cl	Na	Ni	Cd	Pb	Se	Li
Broadcast	0.25	1.37	335	5.57	7.37	1.15	0.12	0.23	0.01	0.73			1.34	T	T	0			
Soil Integrated	0.29	1.54	383	6.37	8.43	1.31	0.14	0.26	0.01	0.84			1.34	T	T	0			

Agronomist's Comments:

*****NOTE: Values of 0.0 indicate nutrients/metals were below detection limits.*****

The waste product has a good neutralizing value. The ALE indicates the amount of the waste required to equal the neutralizing value of one ton of agricultural lime. Be careful to apply it at rates needed to increase soil pH to the desired range and not above that range.

Completed: April 26, 2012



Reprogramming of the laboratory-information-management system that makes this report possible is being funded through a grant from the North Carolina Tobacco Trust Fund Commission.

Thank you for using agronomic services to manage nutrients and safeguard environmental quality.
- Steve Troxler, Commissioner of Agriculture.