References
Birchen Farms INC.

Manure Sample Analysis	***(#/1000 gal or #/ton basis)***					
	N	NH4	OrgN	1st Year AvN	P2O5	K20
Liquid	16.0	10.0	6.0	11.9	7.9	18.0
Solid	9.0	4.0	5.0	5.7	3.0	6.0

Application Method N retention	**% N retention, from MWPS**
SURFACE, SOLID	0.75
SURFACE, LIQUID	0.8
AERWAY	0.9
SURFACE, INCORP	0.95
INJECT	0.98
IRRIGATE	0.7
NONE	0

Organic N Mineralization	**% of OrgN**	LMFA Regulations
Year of App	0.35	
Year 1 after App	0.35	
Year 2 after App	0.175	
Year 3 after App	0.0875	
Year 4 after App	0.04375	

N, P, & K Requirements	**lbs/bu or t, from IL Agronomy Handbook**		
Crop	**N**	**P**	**K**
Corn	1.2	0.43	0.28
Soybeans	0	0.85	1.3
Corn Silage	1.2	2.6	7
Wheat	1	0.9	0.3
Grass Hay	150	12	50
Alfalfa Hay	0	12	50

REPORT N
F09120-6

ACCOUNT NUMBER
89022

A & L GREAT LAKES LABORATORIES, INC.

3505 Conestoga Drive • Fort Wayne, IN 46808 • Phone 260-483-4759 • Fax 260-483-5274
www.algreatlakes.com • lab@algreatlakes.com

QUALITY ANALYSES FOR INFORMED DECISIONS

!6 1 0 4 6 8 7 0 6 2!

TO: CROP PRODUCTION SERVICES
25885 IL ROUTE 72
LANARK, IL 61046-8706

FOR: BIRCHEN FARMS

ATTN: DARIN MUSSER

LAB NUMBER: 45507
MANURE TYPE: DAIRY, LAGOON
SAMPLE ID: M1

MANURE ANALYSIS REPORT

DATE SAMPLED: 04/24/2009
DATE RECEIVED: 04/30/2009
DATE REPORTED: 05/06/2009 PAGE: 1

PARAMETER	UNIT	ANALYSIS RESULT	TOTAL POUNDS PER 1,000 GAL**	FIRST YEAR AVAILABILITY @ POUNDS PER 1,000 GAL
Moisture	%	95.48	7953.5	
Solids	%	4.52	376.5	
Nitrogen, Total (TKN)	%	0.230	19.2	14.0 *
Nitrogen, Ammonium (NH4-N)	%	0.146	12.2	12.2 *
Nitrogen, Organic (N)	%	0.084	7.0	1.8 *
Phosphorus (P)	%	0.043	8.3 (as P2O5)	8.3 (as P2O5) *
Potassium (K)	%	0.164	16.3 (as K2O)	16.3 (as K2O) *

A&L

@ Estimate of first-year availability does not account for incorporation losses. Consult MWPS-18, "Livestock Waste Facilities Handbook" for additional information.
* Source: MWPS-18, Livestock Waste Facilities Handbook, 1993
** Manure density assumed to be 8.33 lb/gallon

REPORT N
F09253-6

ACCOUNT NUMBER
89022

A & L GREAT LAKES LABORATORIES, INC.

3505 Conestoga Drive • Fort Wayne, IN 46808 • Phone 260-483-4759 • Fax 260-483-5274
www.algreatlakes.com • lab@algreatlakes.com

QUALITY ANALYSES FOR INFORMED DECISIONS

!6 1 0 4 6 8 7 0 6 2!

TO: CROP PRODUCTION SERVICES
25885 IL ROUTE 72
LANARK, IL 61046-8706

FOR: BIRCHEN FARMS
15247 W BUSCH RD
PEARL CITY, IL 61062

ATTN: DARIN MUSSER

LAB NUMBER: 47265
MANURE TYPE: DAIRY, LAGOON
SAMPLE ID: M1

MANURE ANALYSIS REPORT

DATE SAMPLED: 09/01/2009
DATE RECEIVED: 09/10/2009
DATE REPORTED: 09/15/2009 PAGE: 1

PARAMETER	UNIT	ANALYSIS RESULT	TOTAL POUNDS PER 1,000 GAL**	FIRST YEAR AVAILABILITY @ POUNDS PER 1,000 GAL
Moisture	%	98.43	8199.2	
Solids	%	1.57	130.8	
Nitrogen, Total (TKN)	%	0.079	6.6	4.1 *
Phosphorus (P)	%	0.024	4.6 (as P2O5)	4.6 (as P2O5) *
Potassium (K)	%	0.117	11.6 (as K2O)	11.6 (as K2O) *

A&L

@ Estimate of first-year availability does not account for incorporation losses. Consult MWPS-18, "Livestock Waste Facilities Handbook" for additional information.
* Source: MWPS-18, Livestock Waste Facilities Handbook, 1993
** Manure density assumed to be 8.33 lb/gallon

REPORT
F08296-6028
ACCOUNT NUMBER
89022

A & L GREAT LAKES LABORATORIES, INC.

3505 Conestoga Drive • Fort Wayne, IN 46808 • Phone 260-483-4759 • Fax 260-483-5274
www.algreatlakes.com • lab@algreatlakes.com

QUALITY ANALYSES FOR INFORMED DECISIONS

TO: CROP PRODUCTION SERVICES
25885 IL ROUTE 72
LANARK, IL 61046-8706

FOR: ROD BIRCHEN LAGOON

LAB NUMBER: 43113
MANURE TYPE: DAIRY, LAGOON
SAMPLE ID: 1

MANURE ANALYSIS REPORT

DATE SAMPLED: 10/10/2008
DATE RECEIVED: 10/22/2008
DATE REPORTED: 10/27/2008

PARAMETER	UNIT	ANALYSIS RESULT	TOTAL POUNDS PER 1,000 GAL**	FIRST YEAR AVAILABILITY @ POUNDS PER 1,000 GAL
Moisture	%	95.32	7940.2	
Solids	%	4.68	389.8	
Nitrogen, Total (TKN)	%	0.234	19.5	12.1 *
Phosphorus (P)	%	0.046	8.7 (as P2O5)	8.7 (as P2O5) *
Potassium (K)	%	0.216	21.6 (as K2O)	21.6 (as K2O) *

A&L

@ Estimate of first-year availability does not account for incorporation losses. Consult MWPS-18, "Livestock Waste Facilities Handbook" for additional information.
* Source: MWPS-18, Livestock Waste Facilities Handbook, 1993
** Manure density assumed to be 8.33 lb/gallon