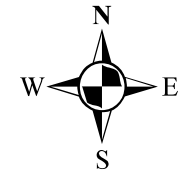


Logeman Brothers

Individual Fields

Soil Map



Legend

- Fields
- Water
- Water Buffer
- Wells
- Well Buffer
- Finisher Buildings
- Existing Land Treatment
- Waste Holding Pond

1,300

Feet

 **Frank & West**
Environmental Engineers, Inc.
7226 N. State Route 29 Phone: 217/487-7686
Springfield, IL 62707 Fax: 217/487-7687

Individual Field Information**Logeman Brothers Farm**

Field Name:	<u>Quint Farm</u>	Total Acres	149.1
		Non-Spreadable Acres	9.9
Township	T14S-R4E	Total Spreadable Acres	139.2
Section	21 & 22		
FSA Farm #	1899	Predominant Soil Type:	8422A+ Cape silt loam, overwash, 0-2% slopes, occasionally flooded
	448		
FSA Tract #	458	P test	113.94
	1-10		
FSA Field #'s	1-4, 11	K test	238.834

Individual Field Application & Nutrients

Crop needs	Year	2009	2010	2011	2012	2013	2014
Crop		Beans	Corn	Beans	Corn	Beans	Corn
Yield	(bu/acre OR ton/acre)		175	50	175	50	175
N needed (lbs/ac)	lbs/ac		210	0	210	0	210
- Legume N credits	(lb/acre)		40	0	40	0	40
- Commercial fertilizer N credits	(lb/acre)						
- Manure N carryover credit **	(lb/acre)		0.0	3.8	1.9	4.7	2.4
Total N Credits	(lb/acre)		40	3.8	41.9	4.7	42.4
Crop N Need Minus Credits	(lb/acre)		170	-4	168	-5	168
Maintenance P needed *	(lb/acre)		75.25	42.5	75.25	42.5	75.25
Maintenance K needed *	(lb/acre)		49	65	49	65	49

* Maintenance P & K needed are listed for calculation & uptake purposes only

** Manure N carryover credit = Previous years' apps * Org N * Mineralization factor

Logeman Brothers Farm							
Quint Farm		2009	2010	2011	2012	2013	2014
Manure Application		Beans	Corn	Beans	Corn	Beans	Corn
Storage			Overflow		Overflow		West Finisher
Application Method			Inject		Inject		Inject
Storage/Application Method			LINE4		LINE4		LINE2
1st Year Available N (<i>Am-N * N retention due to app method</i>) + (<i>OrgN * .35</i>)	(lb/1000 gal)		14.01		14.01		14.01
N App Rate (<i>Crop N Need / 1st Yr Av N</i>)	(1000 gal/acre)		12.1		12.0		12.0
P App Rate (<i>Maintenance P / P in analysis</i>)	(1000 gal/acre)		9.90		9.90		9.90
Apply at Prate or Nrate?			Nrate		Nrate		Nrate
Application Rate to Use	(1000 gal)	0.0	12.1	0.0	12.0	0.0	12.0
Total application (<i>App Rate * Spreadable Acres</i>)	(gallons)		48,000		96,000		1,617,924
N applied (<i>1st Year AvN * App rate</i>)	(lb/acre)		169		168		168
P applied (<i>P in manure * App rate</i>)	(lb/acre)		169		91		91
K applied (<i>K in manure * App rate</i>)	(lb/acre)		92		313		312
Additional N Needed	(lb/acre)		1	-4	0	-5	0
Acres Covered	(acres)		4.0	0.0	8.0	0.0	135.2