Table 5: Crop yields (Mg/ha) from the Forage rotation that compares injection manure (IM) and broadcast manure (BM) treatments.

Crop	Year	IM (6 yr)	BM (6 yr)	SE	Constrast IM vs. BM p value
Corn Silage, W	2010	17.30	17.29	0.85	0.98
	2011	10.25	10.87	0.66	0.41
Corn Silage, Ca	2010	17.09	17.24	0.85	0.84
	2011	12.94	12.43	0.66	0.50
Canola[§]	2010	1.14	1.12	0.13	0.97
	2011	1.53	1.68	0.23	0.36
Wheat	2010	--	--	--	
	2011	3.40	3.23	0.23	0.31
Alfalfa& Orchardgrass, Yr. 1[€]	2010	6.81	7.50	0.85	0.35
	2011	7.22	6.78	0.66	0.57
Alfalfa&Orchardgrass, Yr. 2	2010	7.01	7.14	0.85	0.86
	2011	13.84	13.27	0.66	0.45

§ In 2010, spring canola was planted, while in 2011, winter canola was planted in the previous fall.
€ All forage crop entry yields are reported as total yield for the year.

Table 6: Forage Yield by harvest date for the FORAGE rotation in 2011. The main management comparison in this rotation is broadcasting (BM) vs. injecting (IM) manure.

		Dry Matter Yield (Mt/ha)		
Crop Entry	Harvest Date	IM	BM	(SE)
Alf+Grass Yr. 1 (cut #1)/silage	6/3/2011	**2.23**	**2.03**	0.127
Alf+Grass Yr. 1 (cut #2)/hay	7/1/2011	**1.10**	**1.15**	0.127
Alf+Grass Yr. 1 (cut #3)/silage	8/1/2011	**0.48**	**0.57**	0.127
Alf+Grass Yr. 1 (cut #4)/silage	8/31/2011	**1.96**	**1.97**	0.127
Alf+Grass Yr. 1 (cut #5)/silage	11/3/2011	**1.45**	**1.51**	0.127
Alf+Grass Yr. 2 (cut #1)/silage	6/3/2011	**5.13**	**5.52**	0.281
Alf+Grass Yr. 2 (cut #2)/hay	7/1/2011	**2.48**	**2.43**	0.281
Alf+Grass Yr. 2 (cut #3)/silage	8/1/2011	**1.55**	**1.32**	0.281
Alf+Grass Yr. 2 (cut #4)/silage	8/31/2011	**3.06**	**2.39**	0.281
Alf+Grass Yr. 2 (cut #5)/silage	11/3/2011	**1.63**	**1.61**	0.281

There were no signficant differences between treatments at the 0.05 level.

Table 7: Subset of NESARE forage and feed quality analyses for the FORAGE rotation in 2011. The main management comparison in this rotation is broadcasting (BM) vs. injecting (IM) manure. Standard errors (SE) are presented.

		% Crude Protein			% Neutral Detergent Fiber			Net Energy of Lactation		
Crop Entry	Harvest Date	IM	BM	(SE)	IM	BM	(SE)	IM	BM	(SE)
Corn Silage (after alf+grass)	9/13/11	**10.39**	**10.30**	(0.60)	**43.12**	**45.27**	(2.17)	**0.709**	**0.717**	(0.24)
Corn Silage (after red clov.)	9/13/11	**8.43**	**7.98**	(0.60)	**39.80**	**35.65**	(2.17)	**0.783**	**0.813**	(0.24)
Canola^	7/5/11	**36.4**	**36.4**	--	**30.2**	**30.2**	--	**0.86**	**0.86**	--
Red Clover (fall cut)/hay	10/7/11	**18.77**	**19.70**	(0.56)	**48.73**	**46.90**	(1.85)	**0.533**	**0.587**	(0.019)
Alf+Grass Yr. 1 (cut #1)/silage	6/3/11	**13.67**	**15.27**	(1.05)	**61.93**	**56.33**	(1.77)	**0.520**	**0.557**	(0.010)
Alf+Grass Yr. 1 (cut #2)/hay	7/1/11	**17.47**	**17.90**	(1.05)	**46.13**	**45.67**	(1.77)	**0.653**	**0.657**	(0.010)
Alf+Grass Yr. 1 (cut #3)/silage	8/1/11	**25.97**	**26.77**	(1.05)	**45.40**	**42.47**	(1.77)	**0.627**	**0.647**	(0.010)
Alf+Grass Yr. 1 (cut #4)/silage	8/31/11	**26.53**	**26.17**	(1.05)	**45.47**	**46.40**	(1.77)	**0.620**	**0.613**	(0.010)
Alf+Grass Yr. 1 (cut #5)/silage	11/3/11	**21.73**	**21.73**	(1.05)	**45.40**	**44.60**	(1.77)	**0.677**	**0.663**	(0.010)
Alf+Grass Yr. 2 (cut #1)/silage	6/3/11	**18.67**	**16.17**	(0.94)	**54.13**	**58.63**	(1.47)	**0.537**	**0.510**	(0.012)
Alf+Grass Yr. 2 (cut #2)/hay	7/1/11	**20.93**	**19.33**	(0.94)	**46.93**	**45.20**	(1.47)	**0.627**	**0.650**	(0.012)
Alf+Grass Yr. 2 (cut #3)/silage	8/1/11	**25.97**	**26.77**	(0.94)	**45.40**	**42.47**	(1.47)	**0.627**	**0.647**	(0.012)
Alf+Grass Yr. 2 (cut #4)/silage	8/31/11	**26.10**	**25.90**	(0.94)	**47.90**	**48.47**	(1.47)	**0.603**	**0.593**	(0.012)
Alf+Grass Yr. 2 (cut #5)/silage	11/3/11	**23.03**	**22.57**	(0.94)	**42.80**	**44.13**	(1.47)	**0.683**	**0.683**	(0.012)

a,b: Different lowercase letters between IM and BM for a particular variable indicate a statistical difference between main management treatments at the 0.05 level.

^For canola, results shown are the averages from two representative samples and were not analyzed statistically.