

Fig. 23: Forage yields, forage composition, and weed biomass by cutting and management (RH: reduced herbicide or SH: standard herbicide), for establishment-year stands and the first cut of the second year. Stands were established in A) 2010, B) 2011, and C) 2012. Bars with letters above indicate statistical difference in total forage yield between management within a cut at $P < 0.05$; bars with an asterisk (*) above indicate significantly greater weed biomass within a cut at $P < 0.05$.

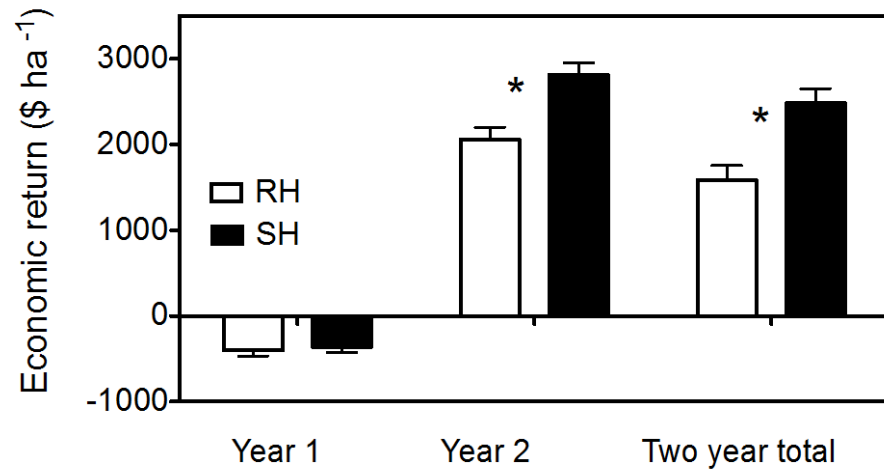


Figure 24: Mean economic return based on forage yield and quality for RH and SH treatments summed across all harvests in: a) year 1, the establishment year, b) the year two and c) total over the two years. * indicate when mean economic return across years differed significantly at $p < 0.05$.

**Financial Performance Comparison
Summary Information**

9/9/2015

Year	2011	2012	2013	2014	Average	
Total Cows	75	75	75	75		
Milk Price	\$ 20.70	\$ 19.09	\$ 21.06	\$ 25.65		
BMSH Lbs Sold/Year	1,779,375	1,845,805	1,769,885	1,819,708	1,803,693	
IMRH Lbs Sold/Year	1,779,375	1,888,510	1,888,510	1,893,255	1,862,413	
BMSH Lbs Sold/Total Cows	23,725	24,611	23,598	24,263	24,049	
IMRH Lbs Sold/Total Cows	23,725	25,180	25,180	25,243	24,832	
Liquidity						
BMSH Current ratio	1.25	1.49	2.39	6.74		Vulnerable 1.1 Strong 1.7
IMRH Current ratio	1.13	1.25	2.15	5.91		1.1 1.7
Profitability (cost)						
BMSH Rate of return on assets	4.8	3.6	6.2	16.0		4.0 8.0
IMRH Rate of return on assets	3.7	3.3	5.8	15.3		4.0 8.0
BMSH Net farm income per Cow	\$ 1,190	\$ 930	\$ 1,521	\$ 3,978	\$ 1,904	
IMRH Net farm income per Cow	\$ 907	\$ 848	\$ 1,409	\$ 3,716	\$ 1,720	
Repayment Capacity						
BMSH Term debt coverage	1.64	1.28	1.74	4.03		1.2 1.5
IMRH Term debt coverage	1.37	1.20	1.63	3.74		1.2 1.5
BMSH Feed cost per cow/year	\$ 1,932	\$ 1,977	\$ 2,163	\$ 1,955	\$ 2,007	
IMRH Feed cost per cow/year	\$ 2,100	\$ 2,066	\$ 2,630	\$ 1,815	\$ 2,153	
BMSH Cost per cwt w lbr & mgt	\$ 19.03	\$ 18.21	\$ 19.98	\$ 17.77	\$ 18.75	
IMRH Cost per cwt w lbr & mgt	\$ 19.47	\$ 18.00	\$ 20.22	\$ 16.72	\$ 18.60	
BMSH Dairy Net return over lbr & mgt/cow	\$ 397	\$ 217	\$ 255	\$ 1,912	\$ 695	\$800-\$1000
IMRH Dairy Net return over lbr & mgt/cow	\$ 291	\$ 275	\$ 212	\$ 2,255	\$ 758	\$800-\$1000

Figure 25. Financial performance comparison between the scenarios of broadcast manure standard herbicide and injected manure reduced herbicide.