

2014 Corn Silage Audit

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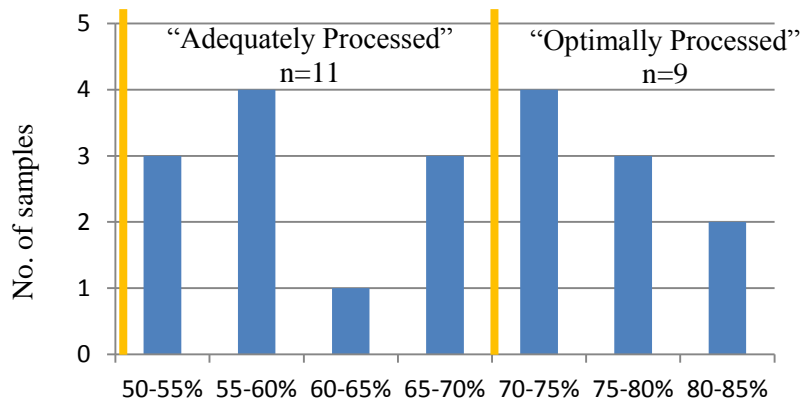
In summer 2014, we visited twenty San Joaquin Valley dairies during corn silage harvest, and sampled and composited five, consecutive truckloads of corn silage for nutrient analysis. **Table 1** includes the summarized nutrient results. Herd size ranged from 350 to 5250 cows (median=1800), and structures were primarily wedge piles (n=14), with fewer bunkers (n=3) and drive-over piles (n=3). Delivery rate varied; the five truckloads of corn were delivered in as little as eight minutes and in as many as 64 minutes. Twelve dairies utilized one packing tractor, seven dairies had two packing tractors, and one dairy packed with three tractors. Only two dairies did not utilize custom harvesting services.

Table 1. Nutrient composition of chopped corn (n=20) taken at harvest.

	% of DM						
	DM	CP	ADF	NDF	Starch	NFC	Ash
AVG	35.9	7.7	24.4	41.0	30.2	43.6	5.4
MEDIAN	35.9	7.8	24.9	42.3	29.0	43.2	5.4
MIN	31.2	6.2	20.2	35.2	23.3	36.6	4.2
MAX	40.3	8.8	28.3	46.7	36.7	50.7	6.8
STD	2.5	0.6	2.1	2.8	3.6	3.1	0.7

Corn silage processing score (CSPS) was also analyzed using the composited forage (**Figure 1**); nine samples were optimally processed (CSPS >70%) and eleven samples were adequately processed (CSPS between 50% and 70%). Corn silage processing score ranged from 50.7% to 82.2%. Even though all dairies kernel processed, and no samples were inadequately processed (CSPS < 50%), there is still room for improvement.

Figure 1. Corn silage processing score of chopped corn (n=20) taken at harvest.



Corn silage processing score is useful to gauge how the chopper performed and to plan for subsequent harvests, but unfortunately does not provide timely information to monitor, and make adjustments, during harvest. In a recent survey of dairy producers using custom choppers (n=138), 13% felt that chopping and processing either needed improvement or was not satisfactory, and 92.5% of producers (n=134) monitored kernel processing during harvest. Regularly checking the degree of kernel processing on-farm, throughout harvest, will allow for adjustments and improvements in kernel processing. Due to the large range in CSPS observed, we recommend hourly inspection of the delivered material, and open communication with the chopper to meet your harvesting goals.