



SILAGE MANAGEMENT PRACTICES ON CALIFORNIA DAIRIES



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INTRODUCTION

Corn silage is a common ingredient of California dairy rations. In well managed corn silages, dry matter losses can be as low as 8 - 10%. However, when poor management practices are implemented dry matter losses can be as high as 20 - 40%.

OBJECTIVES

The aim of this study was to describe current corn silage management practices in California's Central Valley dairies.

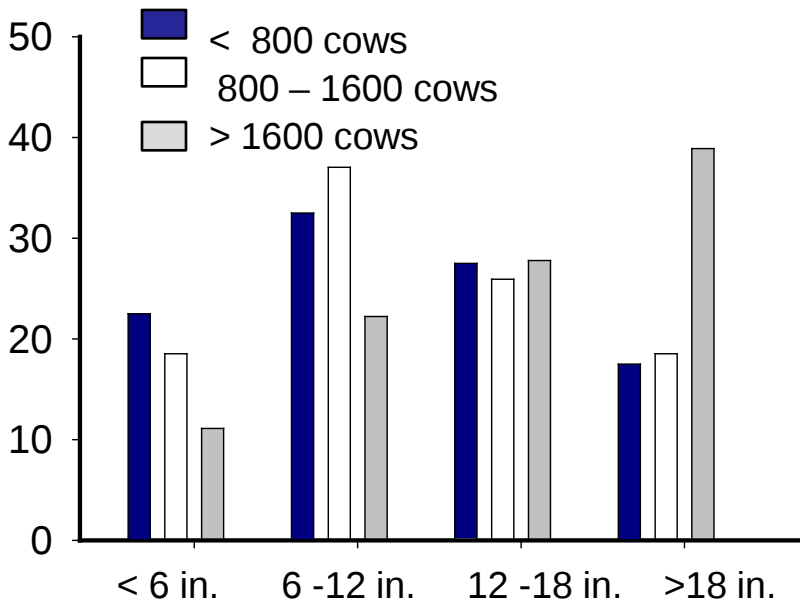
METHODS

In summer 2009, a feed management survey was mailed to dairy producers in Tulare, Stanislaus, and San Joaquin counties; the first, third and seventh largest dairy counties in California, respectively. Producers received an envelope containing an invitation letter to participate in the study, a one-page survey, and a pre-paid return envelope. Response rate was 16.9% (120/710). Herd size ranged from 160 to 6,600 cows (median=950).

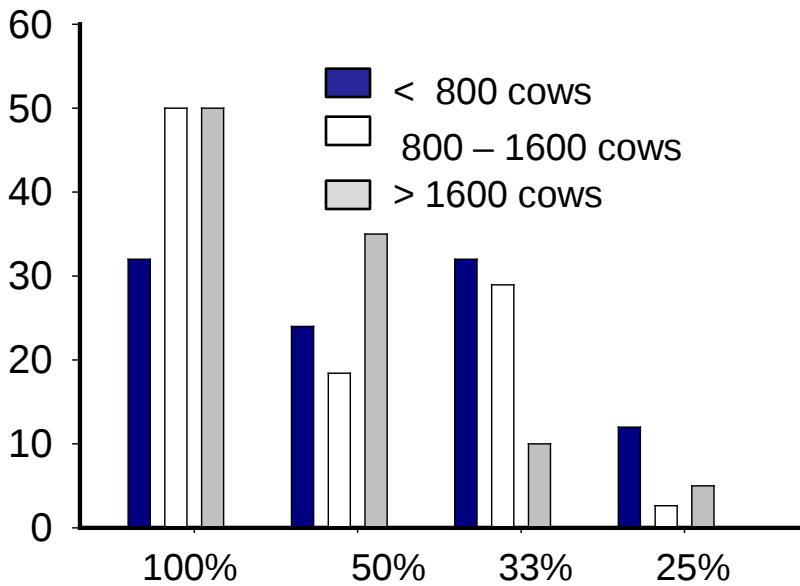


RESULTS: Removal Rate

Depth of the Corn Silage Face Removed per Day by Herd Size



Width of the Corn Silage Face Removed per Day by Herd Size

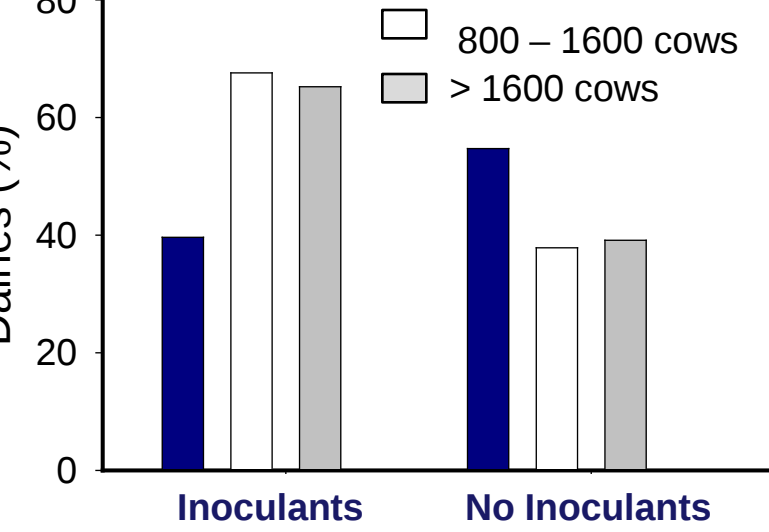


Width and Depth of Face Removed (% of dairies)

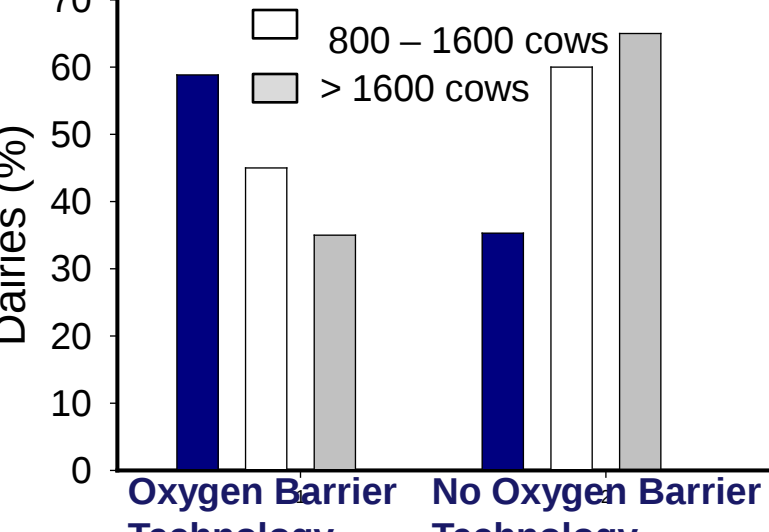
Width of Face Removed	Depth Removed (in.)				
	< 6	6-12	12-18	> 18	
whole	9.6	12.0	7.2	7.2	36.1
half	2.4	9.6	6.0	8.4	26.5
third	4.8	10.8	10.8	3.6	30.1
fourth	2.4	0.0	2.4	2.4	7.2
	19.3	32.5	26.5	21.7	

RESULTS: Inoculant Usage, Oxygen Barrier Technology Usage and Spoiled Forage on the Silage Surface

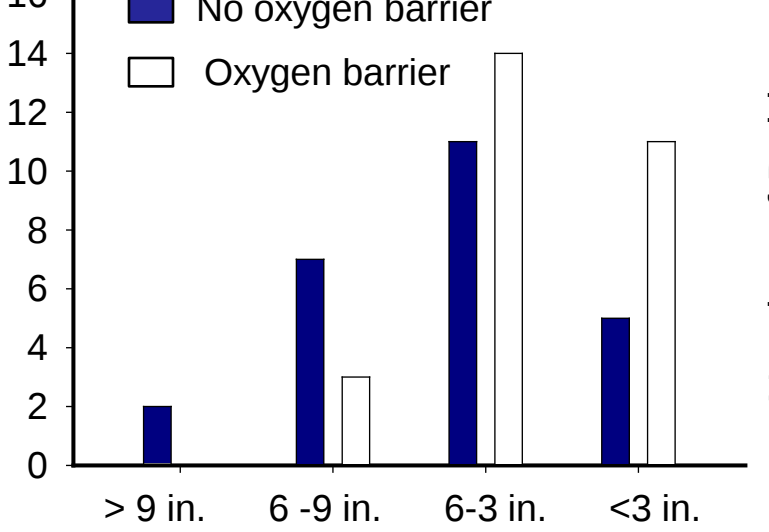
Dairies using Silage Inoculants by Herd Size



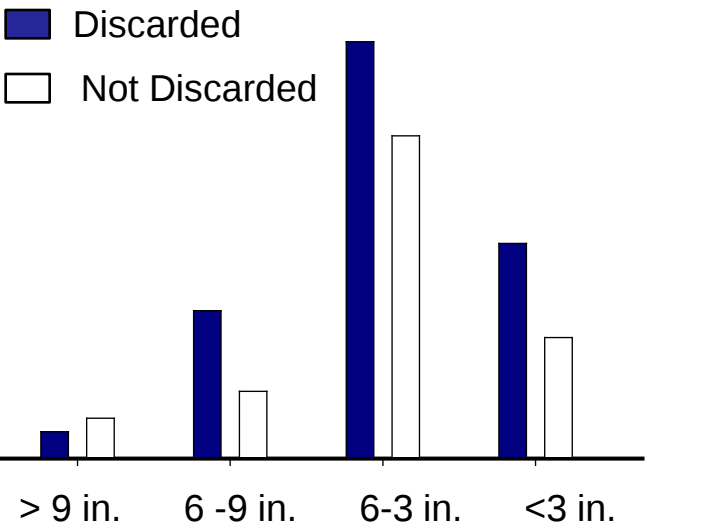
Dairies using Oxygen Barrier Technology by Herd Size



Spoiled Forage on Silage Surface (n=55)



Spoil Forage on Silage Surface (n=102)



RESULTS

Storing Corn Silage



Silage in California was more frequently stored in piles (85.0%) versus bunkers.

Mycotoxins

A total of 25.0% of dairies suspected mycotoxins in 2008. Top surface spoiled forage was discarded by 70.4% of dairies suspecting mycotoxins, and by 55.8% of those that did not suspect mycotoxins.

Face Management



Most respondents (73.4%) considered that silage faces were maintained smooth. Only five of 109 producers used face shavers.

Dry Matter Determination

Corn silage dry matter (DM) was conducted at least once a month in 52.3% of dairies. Only 8.3% of dairies determined DM weekly, or more often. Most dairies delegated DM determination to an outside nutrition consultant (86.6%).

Silage Additives

Bacterial inoculants of various types were used in 54.0% of corn silages.

SUMMARY

Although dairy owner and manager responses are subjective, results indicate areas where corn silage management can be improved, such as removal rate, surface spoilage, and sizing of silage structure.

ACKNOWLEDGEMENTS

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