

Impact of feeding strategies on milk production and profitability on Wisconsin organic dairy farms.

C. A. Hardie*¹, M. Dutreuil¹, R. Gildersleeve², M. Wattiaux¹, N. S. Keuler¹, and V. E. Cabrera¹, ¹University of Wisconsin-Madison, Madison, ²University of Wisconsin-Extension, Lancaster.

The purpose of this study was to group and compare certified organic Wisconsin dairy farms based on general farm characteristics and their feeding regimens during the course of 2010 and evaluate their productivity and profitability. An on-site survey containing sections on farm demographics, feeding, pasturing, and economics was conducted on 69 organic dairy farms. A non-hierarchical clustering method using 9 variables related to general farm characteristics, feed supplementation, and grazing was applied to partition the farms into clusters. A scree plot was used to determine the most appropriate number of clusters. Farm production and profitability were evaluated using reported milk rolling herd averages (RHA) and calculated monthly milk income minus feed costs (IOFC), respectively. The farms in Clusters 1 (n = 8) and 3 (n = 32), the large and small high-input farms, respectively, had the largest RHA and IOFC (Table 1). Cluster 2 (n = 5), the completely seasonal, extremely low-input farms had the lowest RHA and IOFC. Cluster 4 (n = 24), the semi-seasonal, moderate-input cluster, was third for RHA and IOFC. Results indicate that Wisconsin organic dairy farms differed tremendously in structure and feeding strategies, and farms that supplemented more feed had larger RHA and higher IOFC. Evaluation of other farm costs needs to be conducted before assessing profitability at the whole-farm level.

Table 1. Cluster medians (interquartile ranges) for milk rolling herd average (RHA) and milk income minus feed costs (IOFC)

	Cluster (n=8)	Cluster 2 (n=5)	Cluster 3 (n=32)	Cluster 4 (n=24)
RHA, kg/cow per yr	6,878 ^a (1,038)	3,632 ^b (783)	7,457 ^a (1,754)	5,417 ^c (1,760)
IOFC, ¹ \$/cow per d	10.17 ^a (2.99)	5.07 ^{ab} (2.62)	8.59 ^a (4.68)	5.83 ^b (2.66)

^{a-c}Kruskal-Wallis test ($P \leq 0.001$); Wilcoxon test with Bonferroni correction ($P < 0.05$).

¹IOFC for lactating cows for Jan–Nov. (clusters 1, 3, 4) and May–Nov (cluster 2).

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