

Differences between Expanding and Non-Expanding Wisconsin Dairy Farms

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Dairy operations in Wisconsin represent a diverse array of management styles and viewpoints regarding expansion and modernization. Consequently, the informational and support needs of dairy producers are varied. To effectively meet the needs of the dairy producers they serve, members of the research and extension communities need to have a thorough understanding of current demographics and trends within the dairy industry. One such way of strengthening the connections between researchers, extension personnel, and dairy producers is through the use of comprehensive surveys. Late in 2009, the Wisconsin Dairy Business and Production Survey was mailed to 1,000 randomly selected Wisconsin dairy producers. A 30% response rate was achieved and results were categorized to distinguish differences between dairy producers planning to expand and those not planning to expand their operations. A series of questions were used to gather information about dairy producers themselves, their herds, facilities, crops, and informational needs. Table 1 offers insight as to why dairy producers either wanted to expand or stay the same size.

Table 1. Top three reasons given for or against expansion.

Top Reasons	Planning to Expand (N=78)	Not Planning to Expand (N=222)
1	Increase farm's net income 46.6 %	Keep operation at best size given available labor 36.8 %
2	Reduce production costs 24.1 %	Avoid costly investments in structures and equipment 18.4 %
3	Other* 20.7 %	Avoid increased stress from managing a larger operation 16.7 %
*Sample responses given: Fill barn to capacity; improve efficiency; provide enough work for family		

About 33% of all survey respondents indicated plans to expand their herd, whereas the remaining two-thirds of producers were satisfied with their current size. Dairy producers planning to expand were generally younger and had fewer years of experience compared to those not planning to expand. Also, producers planning to expand had significantly larger herd sizes and rented more hectares than producers not planning to expand. Tables 2 and 3 summarize some of these survey results.

Table 2. Differences in personal characteristics between producers planning to expand and those not planning to expand.

Characteristic	Planning to Expand (N=78)	Not Planning to Expand (N=222)
Age (Mean) Age of Respondent *	47.1 (SD 10.7)	51.2 (SD 10.7)
Experience (Mean) Years Farming *	25.1 (SD 13.0)	29.1 (SD 12.1)
* Denotes significant difference between means at (P < 0.05) for t-test. (SD) Denotes standard deviation from the mean.		

Table 3. Comparison of farm demographics between expanding and non-expanding Wisconsin dairy farms.

Farm Enterprise	Planning to Expand (N=78)	Not Planning to Expand (N=222)
Dairy: Milking Herd (Mean)		
# of Cows *	247.4 (SD 363.0)	82.1 (SD 117.0)
Rolling Herd Average (RHA, kg/cow/yr)	9,864.3 (SD 2,243.6)	9,363.1 (SD 1,746.3)
Milkings per Day		
2x	72.0 %	94.5 %
3x	28.0 %	5.5 %
Crops: Hectares (Mean)		
Hectares Owned ^(NS)	124.3 (SD 157.4)	106.0 (SD 111.3)
Hectares Rented *	127.2 (SD 200.7)	46.7 (SD 67.7)
*Denotes significant difference between means at (P < 0.05) for t-test. ^(NS) Denotes no significant difference between means at (P < 0.05) for t-test. (SD) Denotes standard deviation from the mean.		

Additional questions were asked of dairy producers planning to expand, in order to gain a better understanding of their reasoning and potential outreach needs. When asked about improvements to facilities, 27% of producers in this category were most likely to improve calf/heifer facilities. Nearly 90% of producers planning to expand indicated growing from within as the herd growth strategy of choice.

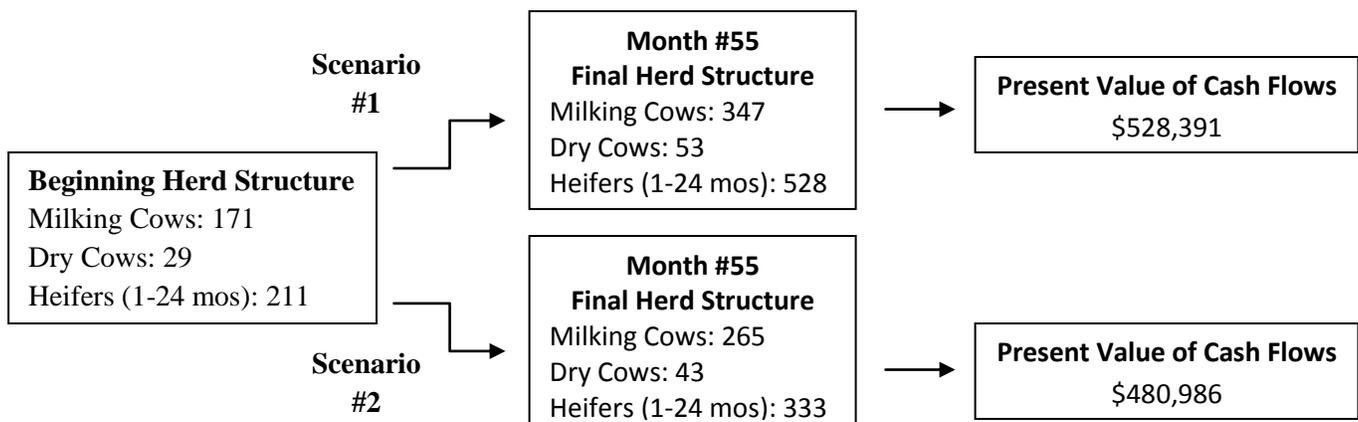
A great deal of information must be taken into account when planning a successful dairy expansion or making management decisions. Both producers planning to expand and those not planning to expand were asked to prioritize their informational needs from research and extension sources. A substantial amount of requests were placed for more information regarding financial planning by producers planning to expand (49%) and producers not planning to expand (30%).

In response to some of the informational needs of dairy producers planning to expand, a Dairy Expansion Decision Support System tool (DE-DSS) was created by the UW Dairy Management Team. The interactive computer-based program gathers information from several different areas of a dairy farm and provides an effective means for simulating changes in herd structure and cash flows. As a complement to the Wisconsin Dairy Business and Production Survey, two simulations were conducted for a 200-cow dairy over a period of 55 months:

1. The dairy aggressively expands the milking herd by using sexed semen to grow from within.
2. The dairy does not aggressively expand and allows only natural growth from within.

Figure 1 illustrates the final results of the simulations. Scenario #1 generated a 9% higher net present value over 55 months.

Figure 1. Results of DE-DSS simulations.



A detailed user guide, informational video, and free download of the DE-DSS are available under the “Tools” section of the UW Dairy Management Website: DairyMGT.info.