



## Sustainable economic development through organic and grazing dairy farm establishment and transition

**Abstract:** This project aimed to increase the number of grass-based and organic dairies in Iowa. However, progress was stymied by the severe 2008-09 economic downturn that kept beginning dairy farmers from getting into the business, and also forced some current producers who were candidates to transition to alternative methods to exit the business.

### Principal Investigator:

**Larry Tranel**  
ISU Extension  
Dubuque

**Co-investigator:**  
**Robert Tigner**  
Formerly ISU Extension

**Budget:**  
\$16,559 for year one  
\$16,708 for year two  
\$4,993 for year three

**Q** Are these model farms profitable, and can they serve as a viable model for both beginning dairy producers and those transitioning from a more traditional confinement system?

**A** These model farms were very profitable in most years and still at least broke even, covering all costs, in the low milk and high feed price year of 2009. So, Iowa dairy producers can be assured that the model is viable and sustainable, though not without risk. The model can support a young family as a starting point, but just as importantly, the model can grow to even a more profitable scale.

### Background

This project was designed increase the number of grass-based dairy farms in Iowa, specifically beginning (young producers and students) and organic dairy producers in eastern Iowa. Conventional producers transitioning to grazing and/or organic also were targeted to help their profitability.

The project also offered technical production assistance to targeted producers and their consultants/advisors (i.e., lenders, nutritionists, veterinarians, milk equipment vendors, etc.). Among the tools/practices used to help producers were:

- 1) Farm business, financial and production planning;
- 2) Development of training activities and teaching materials for farm advisors, extension personnel, high school vocational agriculture instructors, college dairy science faculty, county extension education directors and ISU Extension field specialists;
- 3) Understanding market outlet options for new and transitioning operations; and
- 4) Increasing lender understanding that operations based on grazing or organic production can be profitable alternatives to conventional systems.

The farm business planning and development activities and materials included technical training for production assets. The investigator focused strongly on facility assessments to improve dry matter intake, cow comfort, labor efficiency and pasture/organic development. Labor efficiency training included the whole farm, but also specifically targeted the use of lower cost milking parlor and housing options.

### Approach and methods

The project developed and analyzed model dairy farms as a basis for demonstration and profit analysis that would encourage other producers to enter dairying. The Dairy TRANS program was used to analyze profits. A spreadsheet was developed to compare profitability of individual model dairy farms. One organic producer

was included in 2007 for comparison purposes. Teaching methods included on-farm instruction, a seminar and web-based presentations and materials. The anticipated pre- and post-survey of statewide dairy producers and one anticipated website presentation were not completed due to the departure of the co-PI. Thus, only a post-survey on the work of the PI was used to document project impacts.

## Results and discussion

Financial data on five model dairy farms were analyzed by the Dairy TRANS program. The data showed very high levels of profitability in 2007 and 2008 while profits were only break-even in 2009. (These data appear in the Making Millionaire Model Dairy Producers, Part II publication cited in the Education section of this report.) Producers who worked in 2008-09 to transition their farms to become more sustainable and profitable using the model farms as a base were surveyed. Fifty-six producers received a post-meeting survey and 19 producers responded. All of the respondents rated the teaching or consulting effectiveness of the PI as good or excellent, and 100 percent also valued the PI's assistance in dairy farm management decisions.

## Conclusions

Very high feed prices in 2007 (the first year of the project) and the economic downturn in 2008 and 2009 created a difficult situation for producers interested in starting a dairy operation. The tough economic environment made it more critical to help existing dairy producers struggling to survive. Four dairy start-ups began and one terminated operations due to financial issues. However, despite the poor economy, the five model dairy farms proved their financial stability and sustainability, even during the risky years of low milk prices/high feed prices. This was a major and very critical finding in the study of the future of these alternative operations. Twenty-five percent of the outputs of this project were to be directed at increasing organic dairies. However, due to the economic doldrums, organic dairies were asked to cut production. New organic start-up dairies were impossible to launch, as no entrants could access the market during this period.

Lender misunderstanding was, and continues to be, a major constraint to acquiring capital to finance alternative enterprises such as grazing and organic production. Training activities and materials should be targeted to lenders to increase their knowledge regarding alternative production practices, thereby reducing the perceived and real risks associated with grazing and organic operations.

## Impact of results

Respondents also had the opportunity to list any estimated dollar or production improvement related to their interaction with the PI or ISU Extension. Eight respondents had an average herd size of 113 cows, which is fairly representative of the herds in the study. Three respondents indicated an average improvement of \$266.67 per cow, or a \$90,401 annual impact on these herds. Four herds noted improvements of an average of \$90,000 per farm, or \$360,000 total. One herd indicated an \$85 per acre improvement over 120 acres or \$10,200 annual impact. Five herds indicated a 165,000 decrease in somatic cell count score. This is estimated to increase milk production 400 pounds per cow per year and increase milk premiums



Larry Tranel (left) and a client on a north Iowa dairy farm.

\$0.30 per hundredweight of milk sold. This yields an impact of \$31,640 of additional total milk sales and \$33,900 in added total milk price premiums annually. One producer cited decreased feed costs of \$1 per cow per day with 150 cows for feed savings of \$54,750 annually. Another producer indicated feed costs reduced by \$0.50/cwt over 90 cows for feed savings of \$9,000 annually. Total estimated improvement to these eight dairy operations was \$589,891 annually, or an average of \$73,736 per farm.

## Education and outreach

Five publications were developed as part of this project:

- 1) Remodeling Your Dairy--Cost Effective Facilities <http://www.extension.iastate.edu/NR/rdonlyres/B090C051-8602-4456-B3D6-1ED769C2D495/111976/PM2040June2009FacilitiesLT.pdf>
- 2) TRANS-Iowa Low Cost Milking Parlors <http://www.extension.iastate.edu/NR/rdonlyres/B090C051-8602-4456-B3D6-1ED769C2D495/61848/pm2033transiowaparlor12Mg.pdf>
- 3) Making Millionaire Model Dairy Producers I <http://www.extension.iastate.edu/NR/rdonlyres/B090C051-8602-4456-B3D6-1ED769C2D495/124973/MillionaireModelDairyFarmI2010.pdf>
- 4) Making Millionaire Model Dairy Producers II <http://www.extension.iastate.edu/NR/rdonlyres/B090C051-8602-4456-B3D6-1ED769C2D495/124974/MillionaireModelDairyFarmII2010.pdf>
- 5) Making Millionaire Model Dairy Producers III <http://www.extension.iastate.edu/NR/rdonlyres/B090C051-8602-4456-B3D6-1ED769C2D495/124975/MillionaireModelDairyFarmIII2010.pdf>

In lieu of the classes for new and transitioning dairy producers, several Adobe Connect® presentations were created and are available on the ISU Extension website:

- 1) Beginning Dairy Grazing, <http://connect.extension.iastate.edu/grazing>
- 2) Building Your Own Low-Cost TRANS-Iowa Parlor, <http://connect.extension.iastate.edu/parlor>
- 3) Managing Dairy Farm Finances, <http://connect.extension.iastate.edu/finances>
- 4) Using Dairy TRANS for Profit Performance, <http://connect.extension.iastate.edu/dairytrans>

## Leveraged funds

Travel costs for individual farm visits related to the project were reimbursed by ISU Extension.

**For more information, contact:**

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