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DAIRY DEVELOPMENT AND PROFITABILITY ENHANCEMENT PROGRAM

Work Plan Fiscal Year 2020 Fiscal Year 2019 Legislative Report



David Weinand 625 Robert Street North Saint Paul, Minnesota 55155 Phone: 651-201-6646

www.mda.state.mn.us

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Pursuant to Minn. Stat. § 3.197, the cost of preparing this report was approximately \$1,000

WORKPLAN FOR FISCAL YEAR 2021

Dairy Profit Teams

The Dairy Profit Teams provide one-on-one guidance to dairy producers across the state, including comprehensive financial analysis, risk management education, and production enhancement advice.

In Fiscal Year 2021 (FY21): Support and direct the regional Dairy Profit Teams to work with at least 200 farms statewide. Continue to use the majority of the budget for team delivery activities.

Dairy Business Planning Grants

These grants provide matching dollars for producers to develop a business plan. Grants are capped at \$5,000 per producer. Recipients continue to use these grants to evaluate modernization projects and test for stray voltage.

In FY21: Work with at least 15 farms statewide farms statewide, capped at \$5,000 per application. All grant recipients required to provide a dollar-for-dollar match.

Administration

The administration for this program is provided by the Minnesota Department of Agriculture (MDA) and includes program oversight, office rental, benefits package, copier expenses, and supplies.

Budget

| Budget Item | FY20 Amount | FY21 Amount |
|---|-------------|-------------|
| Dairy Profit Teams | \$500,000 | \$500,000 |
| Dairy Business Planning Grants | \$89,000 | \$89,000 |
| Administration | \$45,000 | \$45,000 |
| Total Funding (2020-2021 Agricultural Appropriations Act) | \$634,000 | \$634,000 |

LEGISLATIVE REPORT FISCAL YEAR 2019

EXECUTIVE SUMMARY

- 1. Dairy Profit Teams worked with 327 farms across the state. The Dairy Profit Teams worked one-on-one with farmers to address a variety of issues that affected the long-term viability of their farms. According to Farm Business Management, the 327 farms' gross revenue represented \$7.3 million in revenue during Fiscal Year 2019 (FY19). The program also generated \$880,000 dollars of in-kind contributions through the industry's work with the participating dairy farms. There were 1,113 team members involved on teams, including veterinarians, nutritionists, Farm Business Management instructors, lenders, and others.
- 1. Dairy Business Planning Grants helped 17 Minnesota producers hire professional advisers to aid them in developing business plans and strategies in FY19. Some producers explored expanding their herds, while others looked to transfer their operation to a new generation

Most dairy farms experienced severe financial challenges in 2019, due in large part to low milk prices. Milk prices started to improve in late 2019 but crashed in early 2020 after COVID-19 affected the world market. Experts believe these stresses will continue through 2020, making this program as relevant and helpful to the dairy community as it has ever been. The continuation of this critical program is essential.

INTRODUCTION

Since 1996, the Dairy Development and Profitability Enhancement Program (DDPEP) has helped Minnesota dairy farms lower costs, improve quality as well as profits.

The MDA prepared this report to meet its statutory obligation in Minnesota Session Laws, 2019 Chapter 1 Subdivision 3.

The Minnesota Legislature appropriated \$634,000 per year for the 2020/21 biennium to continue the Dairy Development and Profitability Enhancement and dairy business planning grant programs established under Laws 1997, chapter 216, section 7, subdivision 2, and Laws 2001, First Special Session chapter 2, section 9, subdivision 2.

The Legislature specified that "The Commissioner may allocate the available sums among permissible activities, including efforts to improve the quality of milk produced in the state, in the proportions that the Commissioner deems most beneficial to Minnesota's dairy farmers."

BACKGROUND

The DDPEP funds two primary components to serve dairy farmers in Minnesota: 1) dairy profit teams and; 2) dairy business planning grants.

The MDA administers this program by granting funds to the Minnesota Dairy Initiative (MDI). The MDI coordinates the dairy profit teams so they can assist dairy farmers. Some of the partners that contribute to the success of this program are the Sustainable Farming Association, Minnesota Milk Producers Association,

University of Minnesota, University of Minnesota Extension, Minnesota State Colleges and Universities Farm Business Management (FBM), and other industry groups.

In 1996, the Minnesota Legislature provided \$1 million for a pilot program with just one dairy profit team. The program expanded in 1997 to support five regionally based teams and one statewide team. The statewide team specializes in management practices such as organic production and grazing as well as focusing on alternative dairy species (sheep and goats). The legislature then appropriated \$2 million for the 2004/05 biennium to expand



advisory team activity and to begin a grant program to encourage individual farmers to invest in dairy business planning. During budgetary reductions in 2009, annual funding was reduced to \$634,000 and it remains at that level. Appendix B references all the laws pertaining to the program.

Dairy Profit Teams

In 1996, the Minnesota Legislature provided \$1 million for a pilot program with just one dairy profit team. The program expanded in 1997 to support five regionally based teams and one statewide team. The statewide team specializes in management practices such as organic production and grazing as well as focusing on alternative dairy species (sheep and goats). The legislature then appropriated \$2 million for the 2004/05 biennium to expand advisory team activity and to

begin a grant program to encourage individual farmers to invest in dairy business planning. During budgetary reductions in 2009, annual funding was reduced to \$634,000 and it remains at that level. Appendix B references all the laws pertaining to the program.

In FY19, 327 dairy farms milking a total of 63,000 cows participated in the program (Appendix A). These figures represent 14 percent of the dairy farms and 14 percent of the dairy cows in the state.

In addition to the farms that were directly served by Dairy Profit Teams, MDI reached other farmers by hosting barn tours and workshops on organic transition, stray voltage, and farm transition.

In FY 2019 the program awarded a total of \$460,000 to support advisory teams fielded by the seven MDI programs across the state (Figure 2).

Figure 1. Members on a Typical Dairy Profit Team.

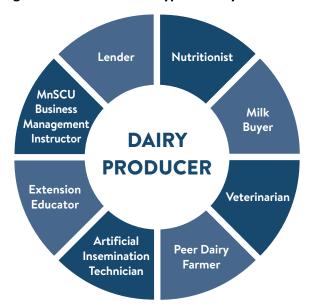
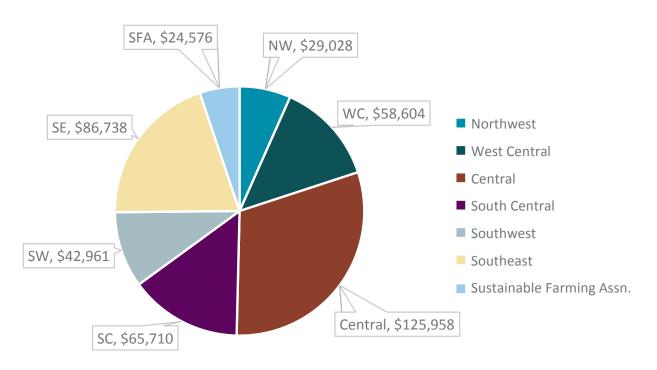


Figure 2. Distribution of FY 2019 MDI Dairy Profit Team Funds



FISCAL YEAR 2019 ACTIVITIES AND ACCOMPLISHMENTS

In FY19, the MDI Dairy Profitability Teams worked directly with farmers and farm families to utilize a flexible, custom-fit team diagnostic approach to help farm families evaluate their whole farm. The goal of the teams is to find ways to improve profitability, productivity, sustainability, and viability through establishing priorities, conducting team meetings, and achieving business goals. Despite low prices, farmers are eager to learn from their teams about expansion options, farm succession, value-added diversity, new farm startups, increasing milk production, and risk management.

Low profit margins in the industry continue to plague dairy farmers across the state. They are feeling emotionally and financially strained after four years of low prices while operating costs continue to go up. Farmers are being forced to look hard at their operations and make some hard decisions about their future. Minnesota lost approximately 255 dairy farms in 2018 and 315 dairy farms in 2019.

MDI functions by focusing on five key principles:

- ➤ Dairy Farmers First Keep the farmers' goals and objectives at the forefront.
- ➤ Boots on the Ground Guide farmers with practical resources and education delivered primarily on-farm. Our niche is to offer farmers a program no other organization or company can offer.
- ➤ Lifelong Learning Coordinators and farmers should never stop striving for the best. Stay relevant in the industry.
- ➤ Collaboration Collaborate with other organizations, companies, and MDI regions to deliver unbiased information to save time, energy, and money.
- ➤ Positive Experiences Market with a platform of positive experiences. Our best marketing comes from farmers and industry professionals having a positive experience in our teams.

Each regional partner provided the following highlights to represent their interpretation of points of interest, challenges, and issues from dairy farms in their region.



Central

Statistics:

- 11,387 total cows enrolled
- Several of the farms enrolled expanded their herds, adding 6,458 new cows
- 40 first-time farms enrolled in the program

Focus areas of interest:

- Expansion/Low cost expansion/ Low cost parlors
- New farm start ups
- Improve record keeping skills
- Increase milk production/components
- Farm Transfer/Estate planning/ Partnership agreement
- Cow Comfort

- · Risk management
- · DMC/Dairy RP
- Education about grants available for dairy producers
- · Transitioning into organic
- · Labor Management
- Finances and understanding cost of production

Communication about farm stress continues to be a common topic during farm meetings, which only reinforces the importance for the program and agriculture industry to help those individuals do business planning and facilitate communication for their families.



Northwest

- Planning educational dairy meetings including robotic dairying and organics.
- Inviting agronomists to help address weed pressures in organic fields for organic farms.
- Many dairy farms have been struggling over the past year with some exiting the business while others have been forced to seek off-farm employment in order to keep their accounts current.
- Lenders have been reluctant to work with dairy farms considering the poor milk prices over the past few years.
- Milk produced per cow continues to increase.



South Central

- Low milk prices continue to apply stress to the farms in this region (financial as well as mental).
- Many farms continue to struggle to find employees.



Southeast

Some of the challenges this year included:

- · Variation of milk price between milk processors
- Low price of cattle well below cost of production for sale of breeding stock
- · Finance institutions looking only at a farm's ability to cash flow for the past two years
- Farm Service Agency's challenges with the Dairy Margin program making it difficult for farmers to utilize it for cash flow projections
- Financial stress and weather stress on families resulting higher divorce rates and bankruptcies



Southwest

- Educational workshops about the Farm Bill Dairy programs, Dairy Revenue Protection program, and the DAIRI program resulted in 64 producers, lenders, and FBM instructors gaining a better understanding of the 2018 Farm Bill.
- Other educational events included topics about how to communicate to non-farm consumers about agriculture, farm transition planning, milk marketing, and navigating through challenging times.
- This region also co-sponsored a minibus for dairy producers to go to the Central Plains
 Dairy Expo in Sioux Falls, South Dakota, and assisted farms who had barn roofs go down
 due to the heavy snow loads.
- This region also has several peer groups about robotics and are planning a four-week session about leadership and positioning their farm for the future.



Sustainable Farming Association

The Sustainable Farming Association (SFA) continues to serve MDI and Minnesota's dairy industry in an advisory role, similar to how University of Minnesota Extension supports other MDI regions. Organic dairies continue to struggle with the weather and markets just as conventional dairies, but there are still some farms that are profitable or at least breaking even in 2019. The common thread within the pool of profitable dairies is management. MDI is often asked to assist struggling farms with high accounts payable and high debt loads that leave very little wiggle room. This stress and fear are so overwhelming that the thought of major changes in the dairy is beyond comprehension in the farmer's mind. It's hard to move the operation quickly enough to salvage something for the farm family. MDI and SFA can often find things that can help with reducing labor and improving the bottom line. For example, many farms struggle with labor and individually feeding calves while group rearing calves can be a quick answer to labor shortages. Meanwhile, the farm might be more focused on looking into robotic milking machines and more debt. Feeding for Energy Corrected Milk or higher butterfat can be another option, especially if milk hauling charges are high. Getting the farm to ship and be paid for higher butterfat vs. charged for volume of the milk can be a mental challenge to overcome but has its benefits just as implementing the principles of soil regeneration and grazing heifers can also help reduce costs. Grazing heifers can improve the soil health as well as offer cost savings back to the farm. University data shows that grazed heifers perform well in the milking herd and may possibly live longer than their counterparts. The longer a dairy cow can be in the herd the longer that asset can contribute to the farm thereby making the farm more profitable. SFA works to help farmers reach their farm goals, but if farms are only interested in having the nicest farm in the township but aren't interested in making the business profitable their ability to help is very limited.



West Central

There is a great deal of stress in the farming community as a whole and with dairy farmers. Effectively dealing with the stress of low commodity prices will remain a top priority in our region. We are continuing to educate our farmers in the field of using cover crops for soil health, raising heifers and raising high quality feed sources. Along with low-cost parlors and grazing for profitability we continue to work with FBM instructors and Ag Lenders in the field of refinance while striving to remain sustainable and profitable.

TESTIMONIALS

"Our team leader is very knowledgeable and will help improve profit on our farm."

Jeremy and Barb Larson, Benton County

"We were overall very satisfied with our outcome. All parties involved were great."

Kevin and Lynelle Vetsch, Morrison County

"The team I assembled through MDI was a tremendous asset to me this year as I began taking my dairy farm business in a different direction. The advice that the team members gave to me was invaluable because all the team members helped to keep me focused on the right things, especially coaching me on how to invest capital in the right places, how to watch my spending, and how to maximize forage quality."

Scott Wittkop, Stearns County

"MDI is a great program. Growing up on a dairy farm that was involved with MDI helped me grow into the producer I am today. MDI benefiting me in so many ways I didn't even realize at the time. It helped me learn things such as reading DHIA reports, learning all kinds of things about rations/nutrition, herd health, also about communication and about the right kind of communication. The ability to have resources come to the farm and have small groups that are just there to talk about your farm, helped with my confidence to ask questions and have a better understanding about things that my parents have known for years, that they overlooked in me and assumed I knew because they already knew. The ability to have some one on one time also has helped me grow into a stronger producer.

MDI has not only benefitted me but has also helped my husband, he too grew up on a dairy farm but with no knowledge of MDI, for him coming into it now, he loves having the benefit of calling different resources to come and teach us about ways to improve our herd.

MDI has encouraged me to know that I am not alone in this industry I have chosen to make my life, being a young producer and having the support of MDI throughout my childhood and career has helped me grow my operation into the success I have today. Having MDI support through the tough times and the good times has shown me the consistent support in a very inconsistent industry can make a huge difference."

Kristen Briard, Mahnomen County

"The MDI program has enabled us to have access to resources that helped us make the best decisions to succeed in our dairy operation. We have explored options in nutrition, facility design, diversification, succession, and tax planning over the years and made decisions based on the information obtained.

We believe MDI is here to help dairy operations find ways to recognize and strengthen our weaknesses and build success on our strengths. Our advice to dairy producers is to be open to new information, and if dairy is your passion you may have to find a way to be more profitable, MDI can help with that."

Sue and Jim Steinmetz, Mahnomen County

"As we are moving toward transitioning our farm to the next generation, the MDI program has provided us with expertise that we would not have had available otherwise, it is helping us to transfer a viable business to the next owners. In northern Minnesota dairy farming is getting to be quite sparse and the MDI program opens up resources that would be difficult to access any other way."

Arne and Carol Kleppe, Clearwater County

"MDI has been a great resource for us during our transition into our new facility. Even now, as things are naturally evening out and larger issues have been dealt with, we see large benefits with regards to fine tuning the smaller issues that can affect our bottom line. MDI provides many benefits for all operation sizes. The opportunity to facilitate a group setting with lots of minds working together is invaluable."

KurthKine Holsteins, Renville County

"The face of our family dairy farm has changed over the years, but our values have stayed the same. How? As we continue to grow, it is vital that the communication lines stay open. Thanks to MDI, we are still sitting around the kitchen table having face-to-face conversations. Our extended family includes our veterinarian, nutritionist, agronomist, financial advisors and herdsman. Together with the resources of MDI, we can plan and dream. MDI has helped us keep the family in family farm."

Meghan Johnson (Bode Dairy), Sibley County

TESTIMONIALS

"With the help of our MDI diagnostic team, we have accomplished a number of goals in the past year, including reaching our cow housing capacity after a small addition, regained most of the production we had achieved with BST, maintained a low rate of mastitis cases, and reached a 36% pregnancy rate."

Rachelle Krienke, McLeod County

"2017 challenge was reproduction and not performing as well as wanted. The pregnancy rate then was 30. After we put in place new breeding program the Pregnancy rate has gone from 30 to 36. Using a value of \$20 for each point of pregnancy rate have an increase value of \$120 per cow or per herd \$30,000.

The dairy team was submitted to Dairy cattle reproductive Council. And will receive the bronze award at fall meeting."

Willie and Karen Naatz, Dodge County

"Our Farm #2 was averaging a SCC of 250-300. We held many team meetings to remedy this problem. Now our SCC is routinely under 100! Thanks to the MDI support and team meetings we are able to obtain our goal of under 100 SCC."

Valley Acres Dairy, Winona County

"With the unstable and ever-changing environment in agriculture the Minnesota Dairy Initiative program has been instrumental in keeping us moving forward towards our goals.

Robert Kreidermacher, Winona County

"When I was first approached about being a part of the team group meetings, I was a sceptic on if it would truly benefit my operation, when I was in pretty constant communication with my vet, nutritionist, and banker already. However, I was inaccurate in my original thoughts. I have been working with Heidi Sellner now for a couple years and the team set up has benefited my operation much more than I could have imagined. We've come up with some of the, what seems to have been, some of the smallest of changes and ideas to increase my milks quality, better my herd health, and adding simple changes to better the farm overall.

Along with bettering the operation, the team has been better preparing for me to take over the farm completely whenever my father retires. Between having more minds to throw

the ideas out for all ways to better my operation that can be utilized more in the long term. My father currently has issues with changes and fights me and the team's ideas, but eventually I will be prepared thanks to the help I get from the team.

The team has helped me address different issues that were causing mastitis and high somatic cell counts, by finding bigger issue that was causing extra bacteria and mastitis. I would have never looked at the towels we use for prepping the cows as the reason we had mastitis, but a sample of the towel showed that's the main issue.

I have been extremely happy with working with MDI and Heidi, and plan to keep utilizing the groups well into the future, and I look forward to what Heidi and the rest of my team can help me with on my operation going forward."

Andy Brandl, Brown County

"The MDI team is an integral part of our dairy farm.
They help us solve issues that arise, bounce ideas off for improvements, and help us keep moving forward to reach our goals."

Dean and Karen Sellner, Brown County

"Minnesota Dairy Initiative has been a good way for dairy producers to stay in good contact with nutritionists, vets, bankers, and employees to be able to sit down and discuss issues on farms and future goals or upcoming plans that each dairy has in mind."

Jacob Bierstedt (nutritionist for Chandler Feeds)

Murray County

"The combination of MDI and FBM is helping us through the tough economic dairy times."

Karl Hanson, Becker County

"MDI is helping us getting bids for roof and building repair from summer storms"

Jerry Dahring, Becker County

"MDI is helping us transition our farm to a new dairy producer who did not grow up on a farm"

Ben Wagner, Douglas County

DAIRY BUSINESS PLANNING GRANTS

In FY 2019, the Dairy Business Planning Grants Program awarded \$78,794 to 17 producers considering making significant changes to their operations. The average grant was \$4,600 with recipients contributing a required match of \$78,794.

Some applicants were considering expansion, while others were improving environmental stewardship, refinancing debt, or transferring the operation to the next generation.

BENCHMARKING

Despite the belief that the size of a herd and milk production predicts the profitability of a dairy enterprise, farm financial data collected through Farm Business Management indicates that even a well-managed small farm carrying a small debt load can have tight margins (www.finbin.umn.edu). Using resources efficiently, maintaining a healthy herd, and monitoring milk production and quality using milk testing programs such as the ones offered by the Dairy Herd Improvement Association (DHIA) can all return profits to a dairy enterprise.

While we use benchmarks to compare the performance of different enterprises to an average, many variables can affect performance and profits in any given year – including weather, herd health, interest rates, debt load, milk marketing conditions, the availability and cost of labor, and the cost of feed and supplements (Table 1). Recently, milk price has had a particularly strong effect on dairy profitability. In 2014, Minnesota dairies reported receiving an average milk price of \$24.45/cwt. That year, they saw a net return of \$1,000/cow. In 2019, milk prices averaged \$18.87/cwt, with an annual net return of \$315/cow, less than one dollar per day.

Most experts predict that dairy farms will continue to experience financial challenges in 2020 but there is some optimism that 2021 will be better.

Table 1. 2019 Dairy Enterprise Data

| Benchmark Item | Minnesota Average | |
|------------------------------------|----------------------|--|
| Hired labor | \$266/cow | |
| Total interest expense | \$117/cow | |
| Total direct expenses | \$12.91/cwt | |
| Total direct and overhead expenses | \$15.75/cwt | |
| Milk produced (pounds) | 22,619 lbs./cow | |
| Cull rate | 29% | |
| Turnover rate | 36% | |
| Percent of barn capacity | 115% | |
| Feed cost | \$8.46/cwt | |
| Milk price and government support | \$18.23/cwt | |
| Cost of production | \$17.86/cwt | |
| Total debt to asset ratio | <50% | |
| Debt per cow | <\$3,000 | |
| Labor hours per cow | <41 | |
| Average somatic cell count | <300,000 | |

Source: www.finbin.umn.edu

Quality Count\$

Quality Count\$ is a statewide campaign to improve milk quality in Minnesota. Quality Count\$ is led by the University of Minnesota with help from the University of Minnesota Extension, the MDA, regional MDI teams, FBM instructors, and Minnesota's dairy processors.

One key measure of milk quality is somatic cell count (SCC). Partner organizations worked together to help farmers reduce herds' SCC to less than 300,000 per milliliter. Since the Quality Count\$ program began in 2003, the average SCC on Minnesota dairies has fallen by 40% (Table 2).

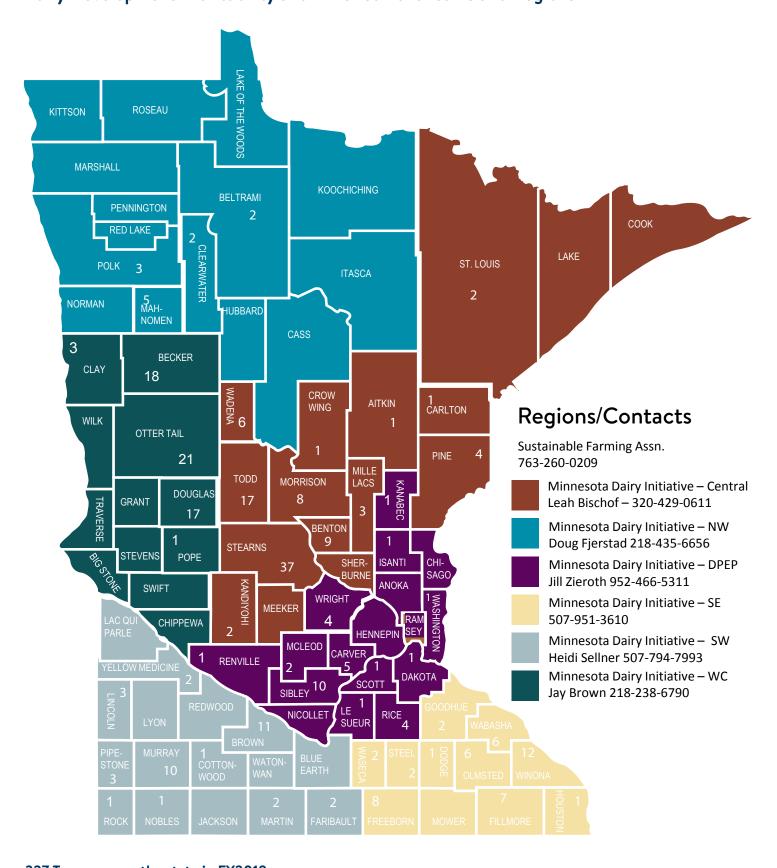
Table 2.

Average Somatic Cell Count (SCC) of Minnesota
Herds Enrolled in DHIA Milk Quality Testing

| Calendar Year | Average SCC (x1,000) |
|---------------|----------------------|
| 2002 | 420 |
| 2003 | 397 |
| 2004 | 362 |
| 2005 | 366 |
| 2006 | 357 |
| 2007 | 347 |
| 2008 | 321 |
| 2009 | 297 |
| 2010 | 294 |
| 2011 | 266 |
| 2012 | 240 |
| 2013 | 234 |
| 2014 | 245 |
| 2015 | 251 |
| 2016 | 250 |
| 2017 | 239 |
| 2018 | 216 |
| 2019 | 220 |

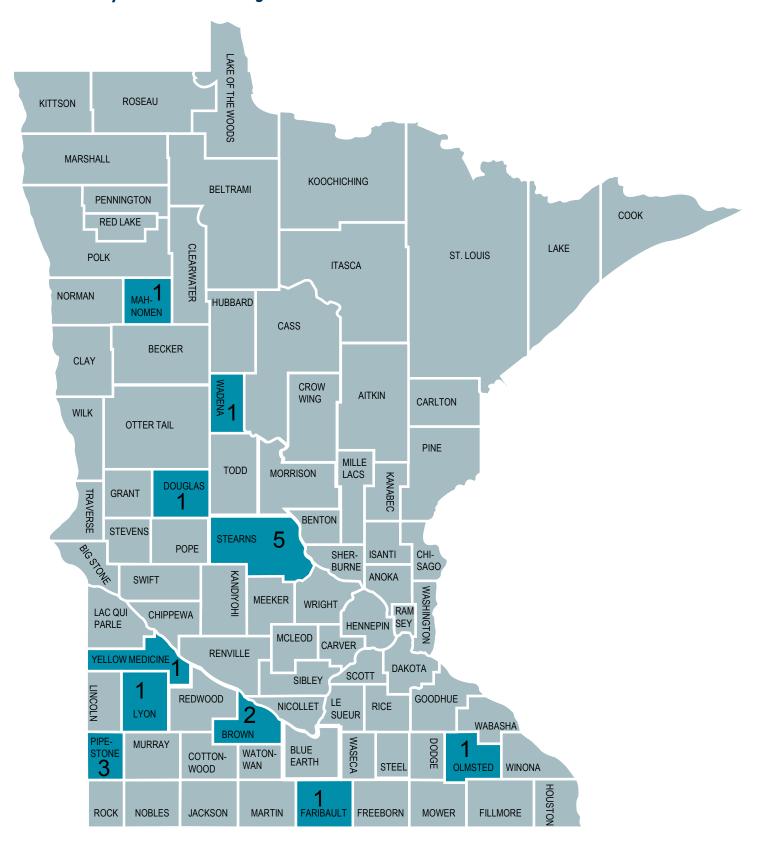
Source: MN DHIA

APPENDIX A: Dairy Development Profitability and Enhancement Teams and Regions



327 Teams across the state in FY2019

APPENDIX B: FY2019 Dairy Business Planning Grants



17 Dairy Business Planning Grants distributed \$78,794

APPENDIX C

Legislative History of the Program Minnesota Laws and Statutes

Minnesota Laws 1997, Chapter 216, Section 7, Subdivision 2

Minnesota Laws 1999 Minn. Stat. Chapter 231, Section 11, Subdivision 2

Minnesota Laws 2001, 1st Special Session, Chapter 2, Section 9, Subdivision 2

Minnesota Laws 2003, Chapter 128

Minnesota Laws 2005 First Special Session Chapter 1 Article 1 Section 3 Subdivision 5

Minnesota Laws 2007 Chapter 45 Article 1 Section 3 Subdivision 5

Minnesota Laws 2009, Chapter 94, Article 1

Minnesota Laws 2011 Chapter 14, Section 3, Subdivision 5

Minnesota Laws 2013, Chapter 114, Subdivision 5

Minnesota Laws 2015 Chapter 17 Subdivision 3

Minnesota Laws 2017 Chapter 88 Subdivision 3C