
MMIH QUALITATIVE SURVEY SUMMARY

Prepared by Gigi DiGiacomo, Department of Applied Economics, University of Minnesota
July 2024



BACKGROUND

This survey is part of the *Match Made in Heaven* (MMIH) project that seeks to foster re-integration of livestock and grain production systems in the North Central Region by generating information on producer practices, attitudes, and goals. One aspect of the project was as producer survey to identify the concerns of row crop farmers wary of adding livestock to their enterprise and to help identify ways to overcome systemic challenges to livestock integration in today's agriculture. This knowledge will help guide development of educational programming and other activities aimed at promoting environmental, economic, and social benefits of integrated livestock and crop systems in the North Central Region.

The project was coordinated by the Midwest Perennial Forage Working Group (MPFWG) of Green Lands Blue Waters. All work was funded by the USDA Sustainable Agriculture Research and Education (SARE) program (grant #3002-11029-00098541).

DISTRIBUTION

Target population. The survey was distributed to crop and livestock producers via partner organizations in the North Central, U.S. (Minnesota, Illinois, Indiana, Iowa, Missouri, Wisconsin).

Timeframe.

Survey Design and Methods. The survey was designed by and fielded by the University of Wisconsin Survey Center (UWSC) using Qualtrics software in collaboration with project partners. Results were analyzed by the University of Minnesota.

The 60-question survey questionnaire was developed using the Tailored Design Method (TRUE?) and structured primarily for online deployment using Qualtrics software. The survey was also formatted and made available to partner organizations in paper form for distribution at farm events and via direct mail. The UWSC met with the project team to advise on outreach strategies to maximize the response rate. Each project partner conducted outreach and distribution of the survey among their members and audiences.

The survey was designed to gather basic information from all respondents and allow specific, in-depth questions for different sub-groups of farmers (such as farmers who already have integrated crop and livestock systems, and underserved farmers). Livestock farmers were asked about their grazing management and their interest in/attitudes toward partnering with crop farmers to graze cover crops, crop aftermath or rent land for pasture. Likewise, crop farmers were asked about their interest in/attitudes toward incorporating livestock enterprises into their operations, allowing livestock farmers to graze cover crops or crop aftermath, or incorporating harvested forage crops into their crop rotations. Both groups were asked about incentives, market and processing availability, and policies related to adoption of these practices.

Other survey topics included: 1) Farm organization, size, structure, and management practices (e.g. herd size, breeding strategies, land acreage, business structure, labor, facilities), 2) Land use management (e.g. crop rotations, tillage practices, input use, cover cropping, nutrient management), 3) Marketing and financial management (e.g. products/commodities sold, direct/commodity markets used, income streams, farm enterprises), 4) General questions on attitudes, policies, and interests (e.g. opinions on policy and federal, state, and local programs; attitudes toward their sector, community, and environment), 5) Household demographics (e.g. age, family structure, off-farm income, farm succession).

Survey Promotion. Survey promotion was a collaborative effort among the projects 100+ partners. All partners were given access to an online “survey promotion toolkit” that contained: a press release, a template for an email campaign, a variety of professionally designed advertisements for print/digital (postcards, flyers, social media posts), a variety of images and text blurbs that could be added to any newsletter, individual PPT slides that could be dropped into any presentation, a full PPT slide deck with recorded presentation, a professionally printable educational infographic handout with a QR link to the

survey, a PDF version of the survey that could be printed & returned by mail, and a template for a 'networking' email that could be used to recruit additional partners to the project effort. \$1000 stipends were available to offset costs of promotion if needed but few partners requested the stipend. Partners used the toolkit materials to promote at conferences, workshops, and on-farm events throughout the 6 states, as well as in newsletters and social media. Only about 25% of partners recorded data on their outreach numbers, but that data showed that the survey promotion reached over 60k farmers. Most promotion was virtual but a particular hands-on effort was made by MN Cow-Calf Days who put paper copies directly into the hands of event attendees, set aside event time for attendees to complete the survey, and then batch collected/returned them. This effort yielded the greatest return: ~180 of our ~840 total responses came from the series of MN CCD events.

Response

Opened by email (anonymous link): 509

Opened by social media (QR code): 64

Opened by mail (paper survey): 180

Opened (all methods): 753

Answered at least one survey question (all methods): 753

Completed 90% of survey (all methods): 570

Data Storage and Security. (Following is typical language that I use for storing in DRUM. UW will have different language). Survey responses were aggregated and cleaned of disclosive information to protect participants' privacy and confidentiality. Quantitative data generated using Qualtrics is stored on the Qualtrics server at University of Minnesota. Qualtrics offers Transport Layer Security encryption (HTTPS) and survey security options like password protection and HTTP referer checking. Their servers are stored in a tier one data storage facility that includes security measures such as biometric entry and double card swipe. The survey instrument and deidentified survey data are available from the Data Repository for the University of Minnesota (DRUM), <http://hdl.handle.net/XXXXX>. This University of Minnesota Libraries' hosted institutional data repository is an open access platform for dissemination and archiving of university research data. DRUM curators review all incoming submissions and work with data authors to comply with data sharing requirements in ways that make data FAIR (Findable, accessible, interoperable, reusable). Data files in DRUM are written to an Isilon storage system with two copies, one local to each of the two geographically separated UMN Data Centers. DRUM provides long-term preservation of digital data files for at least 10 years using services such as migration (limited format types), secure backup, bit-level checksums, and maintains a persistent DOIs for data sets, facilitating data citations.

HIGHLIGHTS

The majority of survey respondents:

- Managed **farms in Minnesota** (42%). Other respondents farmed in Wisconsin (17%), Iowa (14%), Illinois (11%), Indiana (3%), Ohio (2%) and Michigan (2%). See Q1.
- Managed **mid-sized farms with land tenure split evenly** between ownership (mean of 260 acres) and rental (mean of 251 acres). See Q2-Q3.
- Operated an **integrated farm with crops and livestock** at the time of the survey (83%) and had done so for more than 5 years (82%) with a mean of 26 years. See Q19-Q20 and Q32.
- **Grew a mix of traditional midwestern crops** dominated by corn (59%) and corn silage (38%), soybeans (53%) and small grains (47%). See Q4.
- **Grew forages** such as hay (85%), forages for livestock (64%) and perennial pasture (77%). See Q5.
- **Incorporated cover crops** into their rotations during the last three years, including single- (55%) and multi-species (46%). See Q6.
- **Raised livestock** during the last three years (91%); primarily **beef cow-calf pairs** (80%) or other beef enterprises and practiced rotational grazing (87%). See Q7-Q10.
- **Managed fertility using a mix of manure** (94%), purchased **synthetic inputs** (87%) and **cover crops** (71%). See Q15.
- Considered it **very or extremely important** to look at the **interconnections/influences between all farm management decisions** (72%) and to adopt practices that **conserve soil and water resources** (66%). See Q17.

The majority of respondents who managed *integrated crop+livestock systems* (n=443-449):

- Observed **benefits** such as being able to use **manure as fertilizer** (70%), **improved soil health** (61%), **improved conservation outcomes** (55%), reduction of feed costs (49%), and diversification of income streams (49%) "**quite a bit**" or "**a great deal.**" See Q21.
- Found it "**very**" or "**extremely**" **challenging to find adequate land (48%)**; afford needed equipment (44%), generate enough income (44%), find adequate processing (42%), obtain a premium for products (40%), and manage time (39%). See Q23-Q26.

The majority of respondents who managed *crops only, no livestock* (n=39):

- Were "**very**" or "**extremely**" **concerned** about infrastructure needs (40-50%), access to land (41%), winter feed costs (36%), labor (53%) and time management (45%), generating enough income (44%), **finding local processing (62%)** and obtaining premiums for their products (56%) if they were to add livestock to their operations. See Q38-Q41.
- Would **consider adding livestock** to their operation (58%) particularly if livestock were on the farm **seasonally** (72%). See Q44.

Q1 - This is a multi-state survey and we are hoping to break out results by region. Therefore, please provide the ZIP code for your farm's business address:

Field Count

Minnesota 231

Wisconsin 92

Iowa 79

Illinois 60

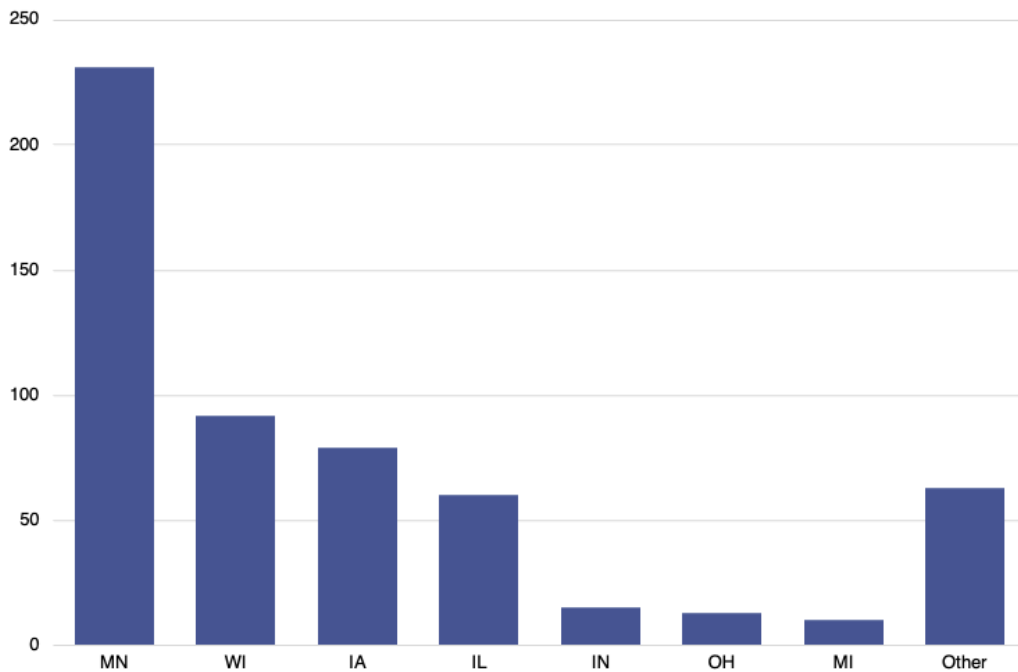
Indiana 15

Ohio 13

Michigan 10

Other (CA, CO, DC, GA, LA, ME, NJ, NY, SD, VA, WV) 53

Total 553

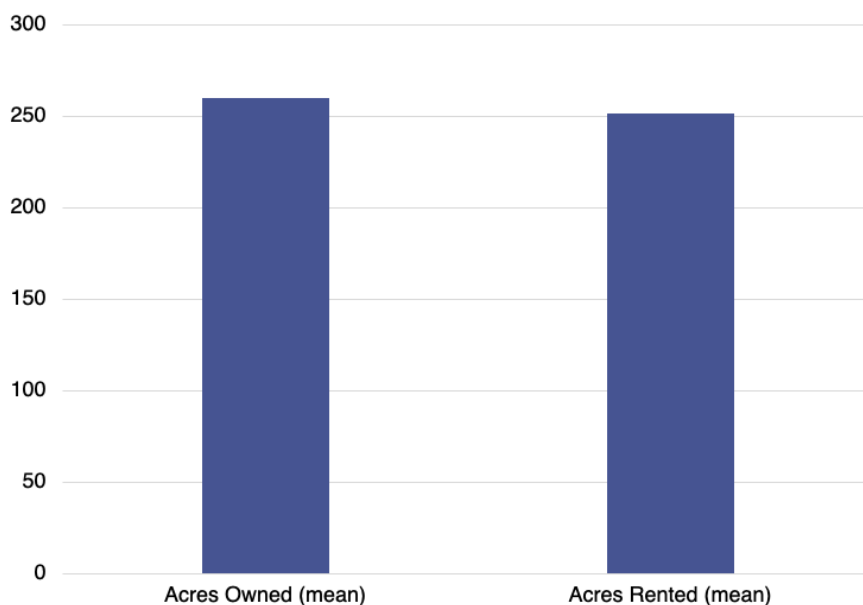


Q2 - These first questions are about land that you farmed in 2022. How many acres of the land that you farmed in 2022 did you own? If you did not own any of the land please enter zero.

No data found - your filters may be too exclusive!

Q3 - How many acres of the land that you farmed in 2022 did you rent from others? If you did not rent any of the land from others, please enter zero.

No data found - your filters may be too exclusive!



Q4 - In the last three years, did you raise any of the following grain crops? Did you grow ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q5 - For this question, consider pasture and forages for livestock as crops. In the last three years, did you grow any of the following forage crops? Did you grow ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q6 - In the last three years, did you grow any of the following other kinds of crops? Did you grow ...

No data found - your filters may be too exclusive!

Q7 - In the last three years, did you raise livestock?

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q8 - For each of the following kinds of livestock, please indicate if you have them on your farm operation, either owned or custom raised:

No data found - your filters may be too exclusive!

Q9 - *REMOVED*

Q10 - The next questions are about your grazing management practices. Please tell us when you used the following grazing management practices? Check all that apply.

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q11 - The next questions are about your livestock feeding practices. Please tell us when you used the following livestock feeding practices. Check all that apply.

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q12 - The next questions are about your livestock marketing practices. Please tell us when you used the following marketing practices. Check all that apply.

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

The next set of questions apply to respondents who reported growing crops only, no livestock *within the past three years*.

Q13 - Which one of the following do you consider your primary farming enterprise?

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q14 - The next questions are about your soil tillage practices. Please tell us when you used the following tillage practices. Check all that apply.

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q15 - The next questions are about your fertility management practices. Please tell us when you used the following fertility management practices. Check all that apply.

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q16 - How much do the following match your farming approach?

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q17 - Continue to think about your farming approach and please tell us:

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q18 - How much do you rely on the conservation information provided by USDA-NRCS?

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q19 - For the next question, please tell us about the integration of livestock and crops in your farm operation. We want to know about the presence of both, even if you do not own or manage both livestock and crops yourself. Remember that pasture and forage are considered crops. Does your farm operation currently have:

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

The next set of questions apply to respondents who reported managing *both livestock and crops*.

Q20 - For about how many years have both livestock and crops been on your farm?

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q21 - Integration of crops and livestock is associated with several potential benefits. To what extent have you observed the following in your operation? To what extent have you observed ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q22 - Have you found any other benefits from integrating crops and livestock on your farm? Please tell us about them:

No data found - your filters may be too exclusive!

Q23 - The next questions are about challenges you may have faced in your adoption of integrated livestock and crops on your farm. First think about infrastructure needs. How challenging has it been to ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q24 - Continuing to think about crop and livestock integration production systems, how challenging has it been to ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q25 - Next, think about farm business management. How challenging has it been to ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q26 - Next, think about financial issues. How challenging has it been to

...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q27 - Have you experienced other challenges in integrating livestock and crops on your farm not mentioned above? Please tell us about them:

No data found - your filters may be too exclusive!

The next set of questions apply to those respondents who reported *currently managing crops only, no livestock.*

Q28 - Have you ever had both crops and livestock present in your farm operation in the same year?

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q29 - How long ago was it that you had both crops and livestock present on this farm at the same time?

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q30 - When you had both crops and livestock present on this farm at the same time...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q31 - Did you have any other kinds of livestock on this farm at that time?
What kind?

No data found - your filters may be too exclusive!

Q32 - For how many years in total did you have livestock on this farm?

No data found - your filters may be too exclusive!

Q33 - Which of the following were reasons you stopped having livestock on this farm? Did you stop because ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q34 - Did you stop having livestock for some other reason? Please tell us:

No data found - your filters may be too exclusive!

The next two questions (Q35-36) apply to respondents who have *never had crops and livestock present on their farm in the same year.*

Q35 - Which of the following were reasons you never had livestock on this farm? Did you never have livestock because ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q36 - Did you not have livestock for some other reason? Please tell us:

No data found - your filters may be too exclusive!

The next questions apply to respondents who manage crops only, no livestock on their farm.

Q37 - The decision to add a livestock enterprise to your operation involves both positives and negatives. Research shows that livestock integration can have significant benefits, but there are also significant challenges. Below we ask you to share your attitudes and interest in those benefits and challenges. First, how interested would you be in integrating livestock to ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q38 - Think about what it would take to have livestock on your farm. First think about infrastructure needs. How challenging would it be to ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q39 - Next, think about production systems. How challenging would it be to ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q40 - Next, think about farm business management. How challenging would it be to ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q41 - Next, think about financial issues. How challenging would it be to

...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q42 - How challenging would you find each of the following crop management concerns to adding livestock to your operation? How challenging would it be to manage ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q43 - Are there other challenges you might face in integrating livestock and crops on your farm not mentioned above? Please describe:

No data found - your filters may be too exclusive!

Q44 - Knowing the potential benefits and challenges of adding livestock, under which of the following circumstances would you consider including livestock in your operation? Would you consider adding livestock ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q45 - How helpful would each of the following be in reducing your challenges to adding livestock to your farm operation? How helpful would it be ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q46 - Are there other things you would find helpful to adding livestock to your farm operation? Please describe.

No data found - your filters may be too exclusive!

Q47 - The next questions are about farm policy and programs. In the last 3 years, have you used ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q48 - We have asked you questions about challenges and potential support. Now is your chance to share any additional ideas you have. What specific types of assistance that are not currently offered would be useful to you in achieving your soil health or livestock integration goals?

No data found - your filters may be too exclusive!

Q49 - What farming enterprise is your primary source of farm income?

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q50 - In 2022, about how much was your gross farming income?

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q51 - In 2022, about how much of your total household income was from off-farm sources?

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q52- Did you hear about this survey from any of the following organizations? Did you hear about it from ...

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q53 - If you heard about it through an organization you participate in, how does that organization help you and in what way could it do better?

No data found - your filters may be too exclusive!

Q54 - Finally, just a few questions about you. Not including years growing up on a farm, for about how many years have you been farming?

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q55 - What is the highest level of education you have completed?

No data found - your filters may be too exclusive!

No data found - your filters may be too exclusive!

Q56 - Is this degree in Agriculture?

No data found - your filters may be too exclusive!

Q57 - If you have a college degree in a field other than agriculture, what is that field?

No data found - your filters may be too exclusive!

Q59 - What is your age?

No data found - your filters may be too exclusive!

**Q60 - Check all of the following that describe your race or ethnicity: -
Selected Choice**

No data found - your filters may be too exclusive!

CROSS-TAB ANALYSIS

Q16X21 examines the number of respondents by farming approach to questions about observed benefits from the integration of crops and livestock. Respondents were asked to rate nine potential benefits on a scale of 1-5 where (1) indicated that the respondent had not observed the benefit at all and (5) indicated that they had observed the benefits a "great deal" on their farm.

Double click to edit