



CENTER FOR URBAN AND REGIONAL  
AFFAIRS OF THE UNIVERSITY OF  
MINNESOTA COMMUNITY  
ASSISTANTSHIP PROGRAM—NATURAL  
FIBER ALLIANCE PROJECT

SPONSORED BY UNIVERSITY OF  
MINNESOTA REGIONAL SUSTAINABLE  
DEVELOPMENT PARTNERSHIPS

**Consumer-Driven Demand Analysis  
for Locally Grown and Organic Wool  
in the Upper Midwest**

The Survey Section:  
Results, Analysis and Conclusions

---

Austin Yang

Ph.D. Student, Dept. of Applied Economics,  
University of Minnesota, Twin Cities

April 2, 2016



# 1. Project Overview (1)

---

- The project consists of two main components and is expected to finish by the end of May, 2016.
- Component 1: a survey (finished)
  - Aimed at the wool product manufacturers and intermediate processors
  - On their attitudes towards the *locally-grown* and *locally-grown-and-organic* wool of the Upper Midwest
  - The Upper Midwest: Iowa, Michigan, Minnesota, North Dakota, South Dakota, and Wisconsin by our definition



# *1. Project Overview (2)*

---

- Component 2: a pilot product (the next step)
  - Based on the analysis of the survey data
  - A pilot product made of the Upper Midwest wool
  - With the cooperation among wool farmers, manufacturers, retailers and Natural Fiber Alliance



## *2. Research Background and Motivation*

---

- The motivation of this research stems from the convergence of several emerging trends about the shopping habits of the US consumers.
  - 1) **The affection for wool is reignited** and the lauded characteristics of wool, such as breathability, durability, and the ability to resist water are again becoming attractive.
  - 2) More and more consumers are buying **environmental friendly, sustainable or organic** products.
  - 3) **Local identity can be a unique advantage** of a product while the buying-local campaigns are heating up.



## 3. Survey

### 3.1. Survey Design

---

- Before the survey, we provide the participant a brief overview about the topic, covering both the potentials and challenges of the local wool industry.
- During the survey, we specifically ask
  - 1) If the participant thinks that there is any added value for the Upper Midwest locally grown wool
  - 2) If the participant thinks that there is any *extra* added value for the Upper Midwest locally grown wool *if it is certified as organic by USDA*
  - 3) Max premium range that the participant is willing to pay for the Upper Midwest local wool if he/she thinks that there is added value attached to it
  - 4) Max *extra* premium range that the participant is willing to pay for the Upper Midwest local and *USDA-certified-organic wool* if he/she thinks that there is extra added value attached to it
  - 5) Other miscellaneous questions



## *3. Survey*

### *3.2. Results and Analysis*

---

- Use online survey approach via Qualtrics with the license from the University of Minnesota
- We have received 12 responses from the identified manufacturers and 8 responses from the identified intermediate processors, with a participation rate of about 40%.



### 3. Survey

#### 3.2. Results and Analysis

##### 3.2.5. Ranking of Wool Source Selection Criteria

---

- In this question, we give 9 criteria for wool source selection and let the respondent rank them in the preference order.
  - “animal rights concerns”
  - “diameter”
  - “environmental concerns”
  - “grade”
  - “length”
  - “local identity”
  - “price”
  - “quantity”
  - “supplier reliability”.
- The most preferred criterion is scored as 1 while the least preferred criterion is scored as 9.



### 3. Survey

#### 3.2. Results and Analysis

##### 3.2.5. Ranking of Wool Source Selection Criteria

---

- Among the manufacturer respondents, we find that averagely,
  - “grade” and “diameter” are the most preferred;
  - “local identity” is ranked in the middle among the criterions.
- Among the intermediate respondents (see Table 1-b), we find that averagely,
  - again, “diameter” and “grade” are the most preferred;
  - but “local identity” is ranked as the second least preferred.



### *3. Survey*

#### *3.2. Results and Analysis*

##### *3.2.8. Awareness for the Emerging Local and Organic Wool Market*

---

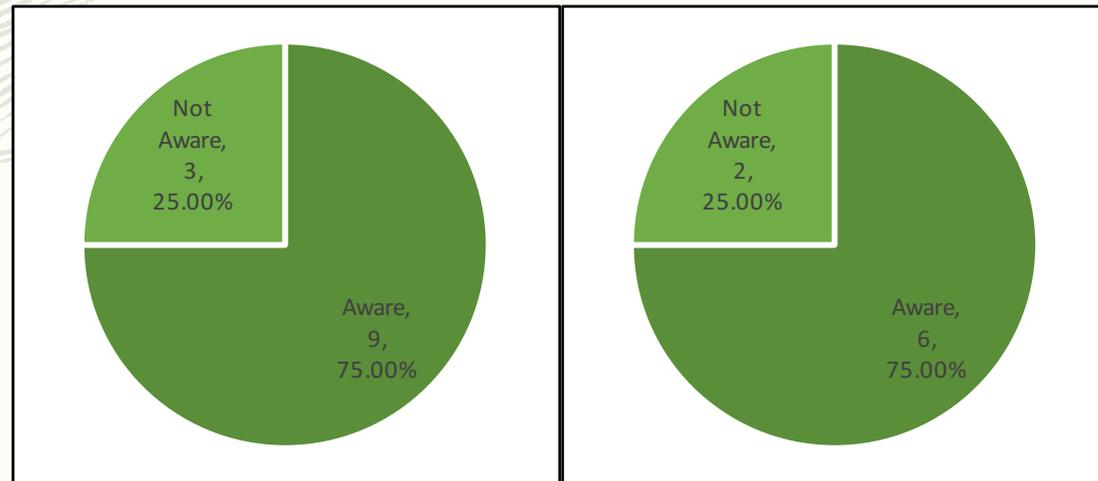
- We ask the respondent if he/she is aware of the emerging consumer-driven market for locally grown, natural, sustainable and organic fibers.
- 9 (75.00%) of the manufacturer respondents and 6 (75.00%) of the intermediate respondents answer “yes”, revealing that a major part of both groups are aware of such a consumer-driven market (see Graph 5).

### 3. Survey

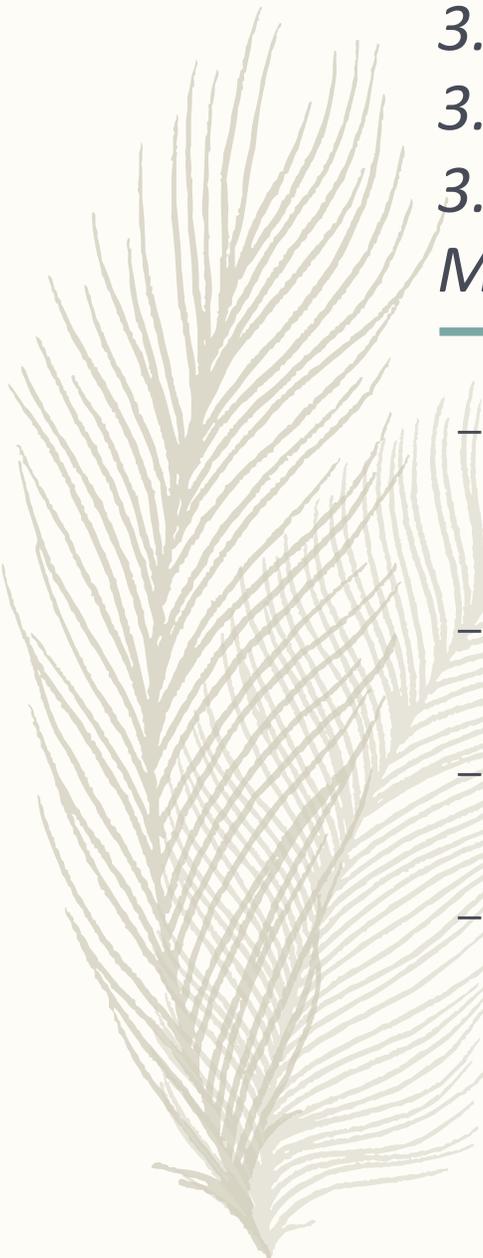
#### 3.2. Results and Analysis

##### 3.2.8. Awareness for the Emerging Local and Organic Wool Market

---



**Graph 5:** Awareness of the manufacturer (left) and intermediate (right) respondents on the emerging market for local, natural, sustainable and organic wool



### *3. Survey*

#### *3.2. Results and Analysis*

##### *3.2.16. Attitude to the Added Value of the Upper Midwest Wool*

---

- We ask every survey participant if they, after reading our research background information, agree that there is any added value for the Upper Midwest wool due to its local identity.
- Among the 12 manufacturer respondents, 10 (83.33%) agree with the notion.
- In contrast, among the 8 intermediate processor respondents, only 3 (37.50%) agree.
- The intermediates' gloomier perception may be due to their narrower profit margins in handling the Upper Midwest wool, and they believe that they can earn higher profits by distributing wool regardless of the local identities.

### 3. Survey

#### 3.2. Results and Analysis

##### 3.2.16. Attitude to the Added Value of the Upper Midwest Wool

---

- For both of the manufacturer and intermediate respondents, we see that the attitude is not likely to be relevant to the operating scale.

**Table 5-a:** The attitudes to the added value for the Upper Midwest wool of the manufacturer respondents, linked with the information of the amounts of wool handled by the respondents

| <b>Attitude</b> | <b>Count of Respondents</b> | <b>Amount of Wool Handled Annually by Respondents</b>                                                                    |
|-----------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Yes             | 10                          | 25 lbs., 50 lbs., 200-300 lbs., 5,000 lbs., 15,000 lbs., 500,000 lbs., thousands, undisclosed, undisclosed, undisclosed. |
| No              | 2                           | 3,000 lbs., 30,000 lbs.                                                                                                  |

**Table 5-b:** The attitudes to the added value for the Upper Midwest wool of the intermediate respondents, linked with the information of the amounts of wool handled by the respondents

| <b>Attitude</b> | <b>Count of Respondents</b> | <b>Amount of Wool Handled Annually by Respondents</b>                    |
|-----------------|-----------------------------|--------------------------------------------------------------------------|
| Yes             | 3                           | 3,500,000 lbs., 4,000,000 lbs., 4,700,000 lbs.                           |
| No              | 5                           | 250,000+ lbs., 3,500,000 lbs., 4,000,000 lbs., undisclosed, undisclosed. |



### 3. Survey

#### 3.2. Results and Analysis

##### 3.2.17. Premium of Willingness-to-Pay for Upper Midwest Wool

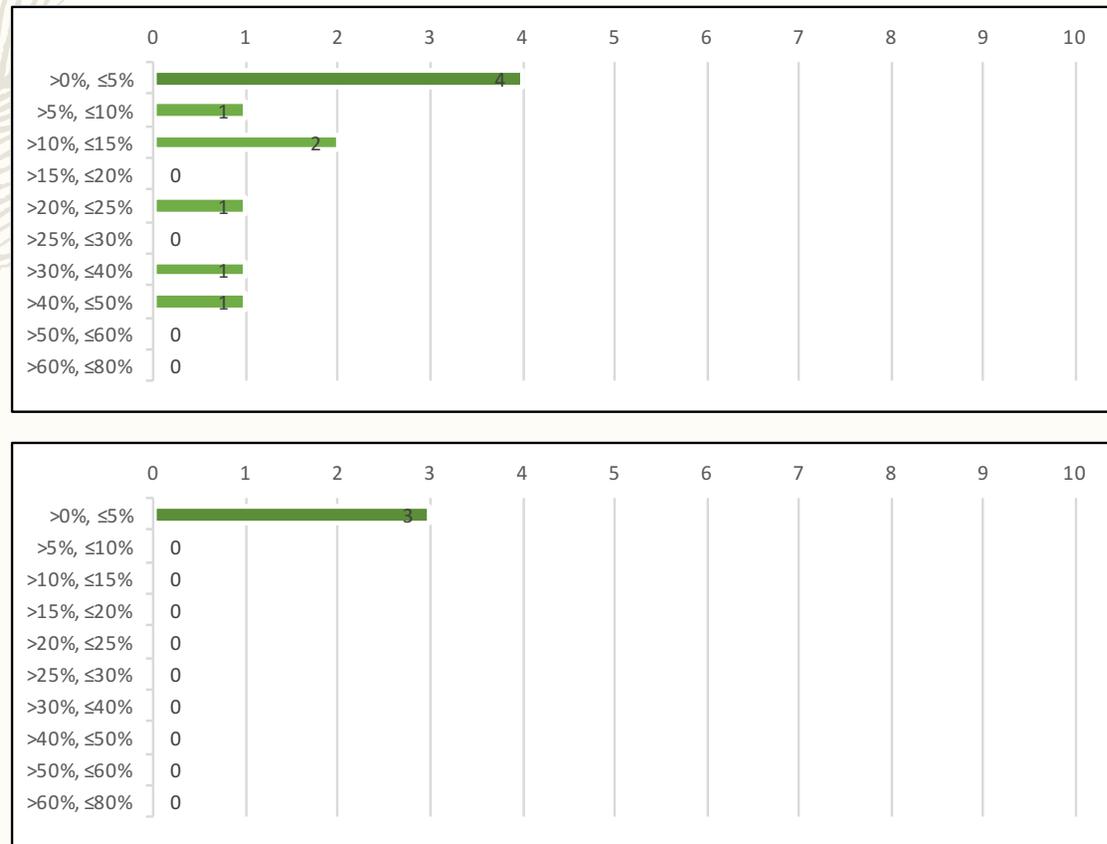
---

- If a respondent agrees that there is added value of the locally grown Upper Midwest wool, we then continue to ask he/she about the maximum premium that he/she is willing to pay for the Upper Midwest wool, which is the percentage above the average price of the other wool that he/she purchases.
- Among the 10 manufacturer respondents who agree on the added value of the Upper Midwest wool, 4 choose (0%, 5%), 1 chooses (5%, 10%), 2 choose (10%, 15%), 1 chooses (20%, 25%), 1 choose (30%, 40%), 1 choose (40%, 50%). All the 3 intermediate respondents who agree on the added value choose the range of (0%, 5%).

### 3. Survey

#### 3.2. Results and Analysis

##### 3.2.17. Premium of Willingness-to-Pay for Upper Midwest Wool



**Graph 12:** Premium willingly to be paid by the manufacturer (up) and intermediate (down) respondents who agree with the added value of the Upper Midwest wool



### *3. Survey*

#### *3.2. Results and Analysis*

##### *3.2.17. Premium of Willingness-to-Pay for Upper Midwest Wool*

---

- Interestingly, more than half of the manufacturer respondents are willing to pay for a higher premium than the intermediate counterparts, which may again suggest the profit potential in the supply chain of the Upper Midwest local wool.
- We think it is important for the intermediates to know that the manufacturers are generally willing to pay for a higher, if not equivalent, premium, so the profit margins for the intermediates can be actually higher than they originally expected.



### 3. Survey

#### 3.2. Results and Analysis

##### 3.2.19. Attitude to the Extra Added Value of the Organic Upper Midwest Wool

---

- If a respondent agrees that there is added value to the locally grown Upper Midwest wool, we also ask if the respondent agrees that there is *extra* added value to the Upper Midwest wool *if it is certified as organic by USDA*.
- Among the 10 manufacturer respondents, the attitudes are evenly split with 5 (50.00%) agreeing with the notion. Among the 3 intermediate processor respondents, 2 (66.67%) agree with the notion.



### *3. Survey*

#### *3.2. Results and Analysis*

##### *3.2.19. Attitude to the Extra Added Value of the Organic Upper Midwest Wool*

---

- Such results suggest that even though a majority of the surveyed manufacturers are confirmative about the added value to the Upper Midwest wool due to its identity, the opinions are divided on if there is convincing market potential for the organic Upper Midwest wool, which could represent higher production costs and an even narrower market.
- We think that the sample for the intermediate respondents is too small to make any conclusion on this topic.



## 3. Survey

### 3.3. Conclusions (1)

---

- Conclusion 1
  - A majority of the manufacturer respondents in our survey are in favor of the possible market potentials for the Upper Midwest wool due to its local identity, regardless of their operation scales, and they are generally willing to pay a premium of no larger than 15% for it.
  - In contrast, less than half of the intermediate respondents are in favor of the notion, suggesting a possibly narrower profit margin for them.
  - Despite of the more suspicious attitude from the intermediate respondents, we still think that further developing the local wool business in the Upper Midwest is feasible and promising.



## 3. Survey

### 3.3. Conclusions (2)

---

- Conclusion 2
  - Among the manufacturer respondents agreeing with the added value of the Upper Midwest wool, the attitudes towards some *extra* added value for the Upper Midwest wool if it is certified as organic by USDA are evenly divided, with an *extra* premium generally no larger than 10% from the supporters.
  - It is still possible to exploit this narrower market, but properly designed marketing and awareness raising plans will be essential.
  - In addition, a new set of organic standards tailored specifically to the wool or fiber industry will be of great help.