

# The Impacts of Agricultural Literacy in North Dakota: A High Schools Youths Perception

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# Purpose and Objectives

## Purpose

- **Examine Agricultural Literacy Levels of Youth**
- **Examine Agricultural Perceptions of Youth**

## Objectives

- Describe self-reported agricultural literacy levels and perceptions of high school students.
- Compare findings of students of the two sub groups in the study.
- Address Question of:
  - “Does Agricultural Education have value based on a students perspective.”

# Overview of Methods

- ▶ **Survey of Beulah and Hazen, ND High School Students 2015-2016 school year.**
  - ▶ **Junior and Seniors**

## **Two Groups**

**Students Enrolled vs Students that have never been enrolled.**

# Methods

## **Actual Participation**

**101 students enrolled in at least one agricultural education class.**

**42 students not enrolled**

**59 females**

**84 males**

**143 out of a possible 173 participated in the survey (82.6%)**

# Findings - Demographics

## ► Number of Agricultural Classes Taken

<u>Ag Classes Taken</u>	<u>Number of Students</u>	<u>Percentage</u>
<b>0</b>	<b>42</b>	<b>29.4</b>
<b>1</b>	<b>32</b>	<b>22.4</b>
<b>2</b>	<b>11</b>	<b>7.7</b>
<b>3</b>	<b>15</b>	<b>10.5</b>
<b>4</b>	<b>15</b>	<b>10.5</b>
<b>5 or more</b>	<b>28</b>	<b>19.6</b>

# Objective # 1 Findings

## Agricultural Knowledge Scores (n=143)

▶ <u>Construct Scores</u>	<u>Min</u>	<u>Max</u>	<u>Mean</u>	<u>SD</u>
▶ Ag. Knowledge	1.0	12.0	7.87	2.61
▶ Ag. Career Literacy	1.0	5.0	<b>1.59</b>	1.12
▶ Ag. Policy Literacy	1.0	10.0	6.46	2.24
▶ Environmental/NR	1.0	7.0	5.12	1.56
▶ Overall results	2.0	32.0	20.86	5.93

**65.1 % overall percentage**

# Objective # 2 Findings

## Agriculture Perceptions

### ► Overall Student Perceptions of Agriculture (n=143)

<u>Range</u>	<u>Min.</u>	<u>Max.</u>	<u>Mean</u>	<u>SD</u>
51.0	61.0	112	89.40	10.75

Minimum Score = 35

Maximum Score = 175

**Overall Percentage Score = 79.8%**

# Objective #3 Findings of Two Groups Enrolled vs Non-Enrolled

- ▶ Perceptions based on agricultural education courses taken (n=143)

**Findings have taken at least one agricultural education class.**

<b>N</b>	<b>Range</b>	<b>Min.</b>	<b>Max</b>	<b>Mean</b>	<b>SD</b>
<b>101</b>	<b>50</b>	<b>61</b>	<b>111</b>	<b>88.25</b>	<b>10.71</b>

**Not taken at least one agricultural education class.**

<b>N</b>	<b>Range</b>	<b>Min.</b>	<b>Max</b>	<b>Mean</b>	<b>SD</b>
<b>42</b>	<b>43</b>	<b>69</b>	<b>112</b>	<b>92.16</b>	<b>10.44</b>



# Objective #3 Findings Continued

## Knowledge Levels based on classes taken

No Ag Classes	N	Mean(SD)	df	sig.
	42	20.19 (5.26)	89.54	.350
At Least One	101	21.15 (6.19)		

## Perceptions Levels based on classes taken

Non	42	92.17 (10.44)	78.58	.047*
At least one	101	88.25 (10.72)		

\*p<.05

\*\*\*Significant difference in perceptions

\*\*\*No significant differences found in knowledge levels

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# Findings to Question

- ▶ Does agricultural education have value?
- ▶ Nine questions examined to evaluate responses to the main question “*Does Agricultural Education have value based on a students perspective?*”

## Highlights

Disagree that agriculture doesn't impact their life in some way. (Q72)

Disagree that agriculture has no effect on them. (Q71)

Agree to having an opportunity to take Ag. Classes in High school. (Q78)

Agree to being able to see themselves working in an Ag. Career. (Q75)

# Implications

- ▶ Low overall literacy scores
  - ▶ Career literacy
  - ▶ Agricultural knowledge
- ▶ Provide opportunities to review current programs.
- ▶ Perceptions
  - ▶ Higher if they have experiences to Agriculture programs
    - ▶ FFA, 4-H, Extension Programs, Adult Ag. Program

# Recommendations

- ▶ Opportunities to review current programs.
  - Career literacy
  - Policy literacy
- ▶ Opportunities to maintain students interest in agriculture.
  - Provide support and learning opportunities for Extension programs.
  - Perceptions increase with experiences towards agriculture.

# Conclusions

Beulah and Hazen have valued agricultural education programs.

Students perceptions of Agriculture increase when they have agricultural experiences.

Students without agricultural experiences still value agriculture.

Youth can teach adults about agriculture and change perceptions.

Agricultural Education at any level is needed in the future.

# Thank you!

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