

# IOWA AGRICULTURAL EDUCATION TEACHERS' CAPACITY TO TEACH AGRICULTURAL PROCESSING

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## INTRO & FRAMEWORK

- Providing students with experiences in quality and realistic facilities will assist in satisfying the demand for AFNR services.
- 22.1 million U.S. jobs connect to AFNR; 70.1% of these jobs are connected specifically to AFNR processing (USDA, 2024).
- This work is needed to determine if programs have the capacity to provide students with hands-on experiences in order to prepare students to satisfy the AFNR career demands (Hill et al., 2021).
- Ajzen's (1991) Theory of Planned Behavior guided the study.

## PURPOSE

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To assess Iowa SBAE teachers' capacity to teach processing instruction.

### OBJECTIVES

- To determine what agricultural processing facilities Iowa SBAE teachers have in their programs.
- To determine what agricultural processing topics they most desire to teach about.

## METHODS

- Instrument reviewed by a panel of experts for content and face validity (Thyer, 2010) and piloted.
- Attempted to reach a census of 248 Iowa SBAE teachers.
- 175 responses obtained, achieving a 70.56% response rate.
- Data analysis on RStudio.

## RESULTS

Facilities in SBAE Programs ( $n = 174$ )

	n	%		n	%
Classroom	172	98.95	Kitchen Space	19	10.92
Greenhouse	130	74.71	Orchard	13	7.47
Storage Room	104	59.77	Landscaping Lab	11	6.32
Ag Mechanics Lab	93	53.45	Foods Lab	4	2.30
Test Plot	63	36.21	Vineyard	2	1.15
Livestock Lab or Barn	21	12.07	Meats Processing Lab	1	0.57

Desire to Provide Instruction on Processing Topics

	n	SD	D	N	A	SA	$\bar{x}$	$\sigma$
Meat	144	3	1	18	72	50	4.15	0.82
Grain	144	7	9	26	78	24	3.72	0.98
Vegetable	142	3	13	32	68	26	3.71	0.94
Dairy	144	7	10	34	64	29	3.68	1.03
Honey	144	6	16	34	57	31	3.63	1.07
Fruit	144	3	20	38	63	20	3.53	0.97

## CONCLUSIONS

- Greatest desire to teach about concepts such as meat, grain, vegetable, and dairy production.
- Only 10.92% ( $n = 19$ ) reported use of a kitchen to teach these topics.
- About 60% ( $n = 104$ ) lack storage space for the equipment needed for these supply-heavy areas.

## RECOMMENDATIONS

### RESEARCH

- Examine the PD needs of teachers to build their PBC (Ajzen, 1991).
- Qualitative research to examine barriers in SBAE facilities.

### PROFESSIONAL PRACTICE

- Additional equipment and facilities should be purchased.
- Development of a best practices guide for administrators.

## REFERENCES



Scan the QR code to access references and the abstract.