

**Agricultural Education Research Summary Report**

**Expert Opinions of the Future of Agricultural  
Education in Illinois**

prepared by

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# **Expert Opinions of the Future of Agricultural Education in Illinois**

## **Introduction**

The purpose of the research summary report is to provide an overview of a research project to investigate the perceptions of experts in the agricultural education concerning the future of Agricultural Education programs in Illinois. This research project was designed to determine the future issues and concerns, research priorities, proposed impacts, ongoing limitations, major accomplishments and future competency area for Agricultural Education programs in Illinois.

This research project was supported by a grant developed by the Facilitating Coordination in Agricultural Education project staff. This project was funded by the Illinois State Board of Education and supported by the Agricultural Experiment Station of the University of Illinois at Urbana-Champaign. The expected outcome of this research project in conjunction with other projects being researched is to establish a cooperative university agricultural education research plan for Illinois over the next five years.

## **Objectives**

The overall goal of this research project was to ascertain Agricultural Education expert opinions and perceptions of the future of Agricultural Education programs in Illinois. The specific research questions for this research project were to determine:

1. What are expert opinions and perceptions of future issues and concerns facing Agricultural Education in Illinois?
2. What should be the future research priorities for Agricultural Education in Illinois?
3. What impacts should Agricultural Education Programs have on students the agricultural industry, and communities in Illinois?
4. What are the ongoing limitations that have kept Illinois Agricultural Education programs from meeting the needs of students, the agricultural industry, and communities?
5. What do Agricultural Education experts perceive as being the major significant accomplishments achieved through Illinois Agricultural Education programs the past ten years?
6. What future competency areas should be researched in order for Illinois Agricultural Education programs to provide for instruction in the food, fiber, environmental and natural resource system?

## **Methods**

The method of data collection for this investigation was the use of the Delphi technique. The Delphi technique was developed by the Rand Corporation in order to ascertain expert opinions related to future issues.

The first stage of the Delphi technique is to ask a panel of experts a series of open-ended questions for their candid responses. The questions used for the Delphi survey were developed by a committee of ten research advisors selected for this project. The committee members were selected based upon their experiences in Illinois agricultural education.

The Delphi participants were nominated by the research project committee. Twenty-three participants were identified by the committee. The primary nomination criteria was the extent to which the person is considered an "expert" on Agricultural Education programs in Illinois. They included agricultural education teachers, teacher educators, community college faculty and agricultural education leaders. Nineteen participants returned the completed round one instrument.

Based upon the first round of the Delphi survey, a complete list of all items was compiled for each of the six questions. A second instrument was mailed to each participant for each to assess their individual level of agreement as to whether the items were significant. Seventeen participants returned the completed second round instrument. A third and final round of the Delphi instrument was used to gain consensus of the items that more than two-thirds of the participants believed that they agreed that the item was significant. Sixteen participants completed the third and final round of the Delphi.

The final composite listings of the participants' responses comprise the findings of this investigation. The items found to be in consensus are perceived to be of significant expert opinions.

## **Findings**

The first research question was to determine expert opinions of future issues and concerns facing Agricultural Education in Illinois. Listed below in table 1 are the composite findings of the Delphi study participants when asked to describe the future issues or concerns facing Agricultural Education in Illinois.

**Table 1: Expert opinions of the future issues or concerns facing Agricultural Education in Illinois.**

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1. Adequately trained teachers.
  2. Expand the general public's perception of agriculture to be more than farming. (Defining agriculture to everyone.)
  3. Recruiting good people to teach.
  4. The number of schools that have agriculture education programs.
  5. The integration of technology.
  6. Identifying the types of jobs that will be available for future agriculturists.
  7. The types of skills needed for future agriculture instructors.
  8. Working with the non-agriculture part of society for a better understanding of modern agriculture.
  9. A Vo-Ag service organization to provide educational materials, and support.
  10. Maintaining an agriculture education presence with the Illinois State Board of Education.
  11. Sufficient funding to meet program needs.
  12. Competitive teacher salaries with agriculture industry.
  13. Agriculture teacher retention.
  14. Promotion of agriculture careers.
  15. The need for instructional programs, as well as agriculture literacy in grades K-8.
  16. Professionalism.
  17. Expansion of the public understanding, addressing food safety and environmental areas.
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The second research question was to determine expert opinions of future research priorities for Agricultural Education in Illinois. Listed below in table 2 are the composite findings of the Delphi study participants when asked to describe the future research priorities for Agricultural Education in Illinois.

**Table 2: Expert opinions of the future research priorities for Agricultural Education in Illinois.**

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1. Effects of BSAA and PSAA on student achievement in other lab courses, success in college, etc.
  2. New curriculum requirements in secondary and post-secondary education.
  3. How much local school counselors really know about the total agriculture industry field and the opportunities for young people.
  4. Determine effective methods of teaching agricultural literacy.
  5. Benefits received by funding secondary agriculture programs.
  6. Cost vs. benefits of secondary agriculture education programs.
  7. The benefits of SAE.
  8. What qualities will agriculture employers want in their future employees?
  9. How to improve agriculture education enrollments at all education levels.
  10. The importance and focus of post-secondary education.
  11. Models for teacher recruitment and retention.
  12. Alternative funding sources.
  13. Determining how much traditional agriculture is still needed in the future agriculture education program.
  14. How to integrate agriculture into all areas of curriculum?
  15. Technology and the internet.
  16. Does membership in FFA significantly improve achievement?
  17. Does SAE programs significantly improve achievement?
  18. The impact of secondary agriculture programs on career success and college success.
  19. The impact of agriculture literacy programs at the elementary level on the perceptions children have towards agriculture.
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The third research question was to determine expert opinions of what impacts should Agricultural Education programs have on students, the agricultural industry, and communities in Illinois. Listed below in table 3 are the composite findings of the Delphi

study participants when asked to describe the impacts of Agricultural Education programs in Illinois.

**Table 3: Expert opinions of what impacts should Agricultural Education programs have on students, the agricultural industry, and communities in Illinois.**

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1. Focus on leadership development through the FFA.
2. Establish the foundation for critical thinking and problem solving skills.
3. Provide agriculture experiences for students planning to enroll in a college of agriculture and or planning to enter an agricultural occupation.
4. Provide students with opportunities to learn everything they can and give the experiences that will have a lasting impact.
5. Provide the agriculture industry with qualified employees that understand the agriculture industry and the “global picture”.
6. Agriculture education programs should instill in all students a sense of community pride.
7. Training competent, confident individuals that are prepared to enter the workforce.
8. Supply what skills industry needs.
9. Become more involved with industry to understand their needs.
10. Actively involved with their respective communities.
11. Be able to articulate positions and communicate with all.
12. Improving agriculture literacy levels within each community.
13. Develop life skills.
14. Promote economic development.
15. Promote/engage in global economy.
16. Impact industry leadership.
17. Promote education beyond secondary level.
18. Provide strong connections for students with industries and communities.
19. Promote “pre K-life” concept of agriculture education (life-long learning).
20. Determine what the agriculture careers are in the changing agriculture industry.

21. Provide opportunities for all to develop leadership, gain agriculture literacy, and pursue successful careers in agriculture related fields.
  22. Continue to ask help from FFA alumni chapters to help run programs.
  23. Teach the students to be proactive.
  24. Provide all students with basic understanding of the sources of food and fiber as well as what is involved in getting them to the consumer.
  25. Create a positive attitude in the general public toward the economic benefits and contributions of the field of agriculture.
  26. Development of education partnerships in communities.
  27. Help to broaden the view of what agriculture really is.
  28. Positive attitude or view of agriculture for everyone.
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The fourth research question was to determine expert opinions of the ongoing limitations that have kept Illinois Agricultural Education programs from meeting the needs of students, the agriculture industry, and communities. . Listed below in table 4 are the composite findings of the Delphi study participants when asked to describe the ongoing limitations facing Agricultural Education in Illinois

**Table 4: Expert Opinions of the ongoing limitations that have kept Illinois Agricultural Education programs from meeting the needs of students, the agriculture industry, and communities.**

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1. Financial resources.
2. Low priority of state leaders: industry, government, and education.
3. Perceived narrow focus of agriculture education.
4. Misunderstanding of what the agricultural industry includes.
5. Information from our IDEA and IOICC showing no need for agriculture employees.
6. Counselors misunderstanding of the jobs available in agriculture.
7. Teachers not understanding the application of science, math, etc in the real world of agriculture.
8. School administration who do not understand the role of agriculture.
9. Negative perception of agriculture as a career on the part of the parent, guidance counselors, and the general public.

10. Low financial rewards for teaching, especially at the secondary level.
  11. Finding and keeping dedicated, competent, effective agriculture teachers.
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The fifth research question was to determine expert opinions concerning the major significant accomplishments achieved through Illinois Agricultural Education programs the past ten years. Listed below in table 5 are the composite findings of the Delphi study participants when asked to describe the major accomplishments of Agricultural Education in Illinois.

**Section 5: Expert opinions of the major significant accomplishments achieved through Illinois Agricultural Education programs the past ten years.**

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1. Establishment of FCAE, ILCAE, and ICAE.
  2. By expanding horticulture and non-traditional subjects to the curricula.
  3. Better in-services for teachers.
  4. Funding for programs.
  5. Core curriculum (updates too).
  6. Rejuvenation of agriculture programs to attract new, more diverse students.
  7. Increased legislative efforts for agriculture literacy.
  8. Agriculture literacy efforts.
  9. Significant changes made in course offerings...less production, more emphasis on today's agriculture.
  10. Science credit for agriculture classes.
  11. Major universities accepting BSAA and PSAA classes for laboratory science entrance credit university wide.
  12. Revised program focus on industry needs.
  13. Line item funding for agriculture education.
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The sixth and final research question was to determine expert opinions of future competency areas should be researched in order for Illinois Agricultural Education programs to provide for instruction in the food, fiber, environmental and natural resource system. Listed below in table 6 are the composite findings of the Delphi study

participants when asked to describe the future competency areas for Agricultural Education in Illinois.

**Table 6: Expert opinions of future competency areas should be researched in order for Illinois Agricultural Education programs to provide for instruction in the food, fiber, environmental and natural resource system.**

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1. Technology skills.
2. Organization and management.
3. Science based curriculum.
4. Global focus.
5. Environmental integration.
6. Entrepreneurial focus and integration.
7. Current and relevant mechanical and technical skills.
8. Marketing skills.
9. Natural resource and environmental curriculum.
10. Better prepared agricultural education instructors. (less time spent in general education courses, more in subject areas).
11. E-commerce and how it will affect the agricultural economy.
12. Biotechnology and its implications for the agricultural industry.
13. Economics taught in agriculture terms similar to BSAA and PSAA.
14. Understanding the impact and ramifications of genetic technology.
15. Expansion of horticulture.
16. Continue to address sales and service areas.
17. Be positive about changes and learn how to adopt to change.
18. Career awareness.
19. Food science and food technology.
20. Small animals and other non-traditional courses.
21. GMO education.

22. Be able to create interest in agriculture by the students.
  23. Promote diverse populations into agriculture.
  24. Teacher training in specific areas.
  25. Precision agriculture management.
  26. What agriculture skills are need for agriculture occupations in urban areas
  27. How to further develop more basic math and science concepts in agriculture.
  28. More emphasis on problem solving techniques of teaching.
  29. Teach integrity via selecting and recruiting good people to teach.
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### **Conclusions and Recommendations**

Based upon the findings of the research project the following research priorities for Agricultural education in Illinois were derived. These priorities were developed by a subcommittee of the research planning committee that designed the original nature and scope of this research project.

#### **FY01 Research Project Priorities**

1. Determine the effects of BSAA & PSAA on student achievement in other lab courses, success in college, etc. and major universities accepting these classes for lab science entrance credit university wide.
2. Assess the impact of curriculum changes including the expansion of secondary Agricultural Education programs inclusion of horticultural and non-traditional subjects to the curriculum and their impact on the changing of the agricultural industry.
3. Determine the impacts of teacher in-service activities, including teacher retention, teaching quality, and Agricultural Education program quality in Illinois.
4. Determine the impact of the Secondary Incentive Funding grants from the Illinois Agricultural Education line item over the past twelve years on the quality of the local Agricultural Education programs in Illinois.
5. Determine the impact of Agricultural Literacy efforts on the secondary agricultural education enrollment in Illinois over the past twelve years.

6. Assess the impacts of Agricultural Literacy programs in Illinois at the elementary/junior high levels on the perception children have toward the agricultural industry.
7. Determine the impacts of the Illinois Agricultural Education infrastructure including, ILCAE, ICAE, ISBE, & FCAE on educational initiatives in Illinois.