

AN ASSESSMENT OF PROBLEMS FACED BY HIGH SCHOOL AGRICULTURAL EDUCATION TEACHERS

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Abstract

Leaders in the agricultural education profession established a goal to expand the number of programs offering high school agriculture education over the next 10 years. If the agricultural education profession is going to meet this challenge, it will need to increase its supply of qualified teachers. Currently agricultural education faces a shortage of qualified teachers. The situation is made worse by the attrition of teachers from the profession. One way to increase the number of qualified agricultural education teachers is to reduce the number of teachers who leave the profession early through attrition. The purpose of this study was to identify and quantify the problems faced as beginning teachers and the problems teachers currently face in West Virginia. Financial rewards for teaching were perceived as a moderate to strong problem for teachers as they entered the profession and as a moderate to strong problem for current teachers. Teachers viewed time management, paperwork, and balancing school and home activities as a slight to moderate problem for beginning teachers as well as a slight to moderate problem for current teachers. Respondents also felt facilities-equipment, student motivation, and discipline were slight to moderate problems for beginning teachers.

Introduction/Theoretical Framework

In 2005, The National Council for Agricultural Education announced a long-range strategic goal of having 10,000 agricultural science programs in place by the year 2015 (Team Ag Ed, n.d.). To place the 10 x 15 goal in perspective, in 2005 there were 7,242 active FFA chapters with 8,889 FFA advisors (Team Ag Ed). To meet this goal, the agricultural education profession will have to generate more than 2,500 additional certified agricultural education teachers in the next 10 years, a 33% increase above the average of 760 qualified teachers generated each year (Kantrovich, 2007).

The 10 x 15 goal will exacerbate the current shortage of individuals willing to teach agricultural education. For example, in 2006 there were 785 individuals newly qualified to teach agricultural education. Only 69.8% of these newly qualified teachers entered the teaching profession, leaving 78 teaching positions unfilled (Kantrovich, 2007). Although the numbers

have fluctuated, unfilled teaching positions in agricultural education have been an annual phenomenon.

There are a number of factors that contribute to the teacher shortage. Agricultural education graduates are qualified for a number of private sector and government positions. In a regional study of agricultural education graduates, Hovatter (2002) found that 50% of certified graduates were employed in a profession other than teaching. Croasmun, Hampton, and Herrmann (1999) found that teacher attrition was the largest factor determining the demand for teachers in the United States. Approximately 20% of all K-12 teachers employed in 1994 were not in the same occupation 3 years later (Henke & Zahn, 2001). Nearly one in three first-year teachers employed in the 1970s left the profession (Croasmun et al.).

In many situations, attrition is linked to the number and types of problems teachers face. A teacher's success or failure in their given profession is dependent on their

ability to solve these problems. Numerous studies found salary to be one of the leading reasons for leaving the teaching profession (Ingersoll, 2001, 2003; Self, 2001; U.S. Department of Education, 1999). Many teachers leaving the profession indicated poor administrative support as the reason (Fox & Certo, 1999; Gersten, Gillman, Morvant, & Billingsley, 1995; Ingersoll, 2001, 2003; Self; U.S. Department of Education, 2002). Other problems linked to teacher attrition include lack of parental support (Fox & Certo; Self), lack of involvement in decision making (Fox & Certo; Gersten et al.; Ingersoll, 2001, 2003), student discipline (Ingersoll, 2001, 2003; Self), poor student motivation (Ingersoll, 2001, 2003; Self), large class sizes (Ingersoll, 2001), inadequate time to prepare (Ingersoll, 2001), and lack of community support (Ingersoll, 2001).

To meet the 10 x 15 goal established by Team Ag Ed, steps must be taken to increase the supply of qualified agricultural education teachers. Because many teachers leave teaching because of problems they face (Fox & Certo, 1999; Gersten et al., 1995; Luekens, Lyter, & Fox, 2004; Self, 2001; U.S. Department of Education, 1999, 2002), the profession needs to devote more time and energy to identifying and providing services to help the teachers through these situations.

Review of Literature

Job satisfaction is directly linked to the problems faced by teachers of agricultural education. Perie and Baker (1997) found that workplace factors/problems such as administrative support, parental involvement, and teacher control over the classroom were significant contributors to teacher satisfaction. A number of studies have examined the job satisfaction of agricultural education teachers and found they were satisfied with their jobs (Cano & Miller, 1992; Castillo, Conklin, & Cano, 1999; Flowers & Pepple, 1988; Newcomb, Betts, & Cano, 1987). Teachers who are satisfied with their career also perceive themselves as effective classroom teachers (Bruening & Hoover, 1991).

A review of the literature identified the following problems faced by teachers:

salaries (Croasmun et al., 1999; Fox & Certo, 1999; Self, 2001; U.S. Department of Education, 2002), marital status (Croasmun et al.), low ability students (Farrington, 1980), student motivation (Farrington; Heath-Camp, Camp, Adams-Casmus, Talbert, & Barber, 1992; Self, 2001; Veenman, 1987), demands of young and adult farmer programs (Farrington; Miller & Scheid, 1984), balancing school and personal lives (Godley, Klug, & Wilson, 1985; Mundt & Connors, 1999), community support (Heath-Camp et al.; Mundt & Connors), management and organizational skills (Godley et al.; Miller & Scheid; Mundt & Connors; Talbert, Camp, & Heath-Camp, 1994), student discipline (Godley et al.; Heath-Camp et al.; Karge, 1993; Self; U.S. Department of Education, 1999; Talbert et al.; Veenman), administration support (Fox & Certo; Gersten et al., 1995; Mundt & Connors; Self; Sultana, 2002; Veenman), facilities and equipment (Farrington; Heath-Camp et al.; Veenman), time management (Heath-Camp et al.; Mundt & Connors; Talbert et al.; Veenman), lesson planning (Heath-Camp et al.; Talbert et al.), recruiting students (Mundt & Connors), paperwork (Karge; Mundt & Connors; Veenman), parental relationships (Fox & Certo; Heath-Camp et al.; U.S. Department of Education, 1999, Veenman), stress (U.S. Department of Education, 1999), and preparation (U.S. Department of Education, 2002).

Purpose/Objectives

The annual shortage of qualified teachers in agricultural education (Kantrovich, 2007) combined with the pressures of reaching the 10 x 15 goal established by the National Council for Agricultural Education (Team Ag Ed, n.d.) provides an interesting dilemma for state supervisors and agricultural education teacher preparation departments. One solution to the problem may be to reduce the level of teacher attrition. A review of literature clearly links job satisfaction and problems faced by teachers.

The purpose of this study was to identify and quantify the problems faced as beginning teachers and the problems

teachers of agricultural education currently face in West Virginia. The objectives of the study are reflected in the following research questions:

1. What is the nature and degree of the problems faced as beginning teachers in West Virginia?
2. What is the nature and degree of the problems teachers currently face in West Virginia?
3. Is there a difference in the nature and degree of problems faced by teachers in West Virginia when compared by gender?
4. Is there a difference in the nature and degree of problems faced by teachers in West Virginia when compared on the size of the department (single-teacher vs. multi-teacher departments)?
5. Is there a difference in the nature and degree of problems faced by teachers in West Virginia when compared by the number of years of teaching experience?

Methods/Procedures

A descriptive research design was used to determine the nature and degree of beginning and current problems encountered by agricultural education teachers in West Virginia. This design was selected in order to examine the phenomenon in detail and allow the respondents to describe the situations in their own words (Ary, Jacobs, Razavieh, & Sorensen, 2006). The population consisted of 95 teachers employed in West Virginia during the 2002-2003 school year. The population frame was established by using the state's secondary agriculture teacher directory.

Procedures

A modified Delphi technique was used to develop the questionnaire. The original questionnaire consisted of two open-ended questions. The first question asked the respondents to list five problems they encountered as a beginning teacher in agricultural education. The second question asked respondents to list five problems they were currently facing. Teachers who had

taught 3 years or less were instructed to answer only the question dealing with beginning problems. In phase two, the responses were assembled in categories, and respondents were asked to use a six-point Likert scale to evaluate the degree to which they thought each item was a problem. Each item was averaged and its contribution to the problem category was evaluated. Low scoring items were discarded. In phase three, composite scores were created for each problem category.

The instruments were presented to a panel of experts consisting of agricultural education faculty at West Virginia University to confirm their content and face validity. Reliability of each problem category ranged from an alpha level of .68 to .96. Two categories were determined to have moderate reliability (.60-.69), five categories had extensive reliability (.70-.79), and the remaining categories demonstrated exemplary reliability (.80-.99) (Robinson, Shaver, & Wrightsman, 1991).

Dillman's (2000) tailored design method was used during each phase to collect the data. A cover letter requesting assistance in the research study and a copy of the questionnaire were e-mailed to every teacher in the accessible population. They were given two weeks to complete the questionnaire. A second cover letter and copy of the questionnaire were e-mailed to all teachers who failed to respond to the initial e-mail message. A two-week deadline was given for the completion of the questionnaire. At the end of the second deadline, a cover letter and questionnaire were mailed to each of the nonrespondents. Sixty-two respondents (65.3%) returned completed questionnaires.

Nonresponse error was addressed by comparing early respondents to late respondents. A chi-square test of independence was performed to determine whether there was a significant difference between early and late respondents on gender, years of teaching experience, and number of students. The chi-square values were not significant ($\alpha > .05$). It was concluded that nonrespondents were similar to respondents (Ary et al., 2006); therefore, generalizations could be made to the entire

population.

Results/Findings

Demographic Characteristics

Sixty-two teachers responded to the final questionnaire. The respondents average 17.88 years ($SD = 10.79$) of teaching experience. The number of students in their

departments ranged from 11 to 500 with a mean of 123.24 students ($SD = 87.08$). The number of teachers ranged from one to five with an average of 1.97 teachers ($SD = 1.28$) per department (Table 1). Forty-nine of the respondents (79.0%) were male, 10 respondents (16.1%) were female, and three individuals (4.8%) did not report demographic information (Table 2).

Table 1
Characteristics of Respondents' Educational Situation

	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
Years of Teaching Experience	17.88	10.79	1	41
Number of Students in Department	123.24	87.08	11	500
Number of Teachers in Department	1.97	1.28	1	5

For effective comparisons of the teaching experience, the data were coded into ordinal categories. Seven-year increments were used for the teaching experience variable. Thirteen teachers (21.0%) had between 0 and 7 years of teaching experience. Ten teachers (16.1%) reported between 8 and 14 years of teaching experience, 13 teachers (21.0%) indicated they had between 15 and 21 years of teaching experience, and 23 teachers

(37.1%) had more than 22 years of teaching experience. Three teachers (4.8%) did not report teaching experience (Table 2).

The number of teachers variable was coded into a dichotomous variable of single-teacher vs. multi-teacher departments. Twenty-nine respondents (46.8%) reported working in a multi-teacher department. Thirty teachers (48.4%) were in a single-teacher department. Three teachers (4.8%) did not report this information.

Table 2

Demographic Characteristics of Respondents

	<i>n</i>	%
Gender		
Male	49	79.0
Female	10	16.1
Not Reported	3	4.8
Years of Teaching Experience		
0-7 years	13	21.0
8-14 years	10	16.1
15-21 years	13	21.0
22 or more	23	37.1
Not Reported	3	4.8
Number of Multi-Teacher Departments		
Multi-Teacher Department	29	46.8
Single-Teacher Department	30	48.4
Not Reported	3	4.8

The problem statements were organized into 18 categories for both problems of beginning teachers and problems teachers currently face. An average composite score was calculated for each category. The following scale was used to interpret the composite scores: 1 – 1.49 very strong disagreement, 1.50 – 2.49 moderate to strong disagreement, 2.50 – 3.49 slight to moderate disagreement, 3.50 – 4.49 slight to moderate agreement, 4.50 – 5.49 moderate to strong agreement, and 5.50 – 6.0 very strong agreement.

*Severity of Problems for Teachers of
Agricultural Education*

Respondents had a moderate to strong agreement ($M = 4.73$, $SD = 1.27$) that financial rewards were a problem for beginning teachers (Table 3). There was slight to moderate agreement that time management ($M = 4.04$, $SD = 1.12$),

paperwork ($M = 3.85$, $SD = 1.26$), balancing school and home activities ($M = 3.73$, $SD = 1.39$), facilities-equipment ($M = 3.70$, $SD = 1.19$), student motivation ($M = 3.57$, $SD = 1.14$), and student discipline ($M = 3.51$, $SD = 1.21$) were problems for beginning teachers. The respondents expressed slight to moderate disagreement that the remaining 11 categories were problems for beginning teachers. The eleven categories included: relationships with guidance counselor ($M = 3.49$, $SD = 1.24$), dealing with special needs students ($M = 3.40$, $SD = .25$), undergraduate preparation to teach ($M = 3.28$, $SD = 1.10$), changes in FFA/agriculture ($M = 3.25$, $SD = 1.02$), image of agricultural education ($M = 3.21$, $SD = 1.65$), budgets-funding for the program ($M = 3.02$, $SD = 1.18$), relationships with faculty/peers at the school ($M = 2.99$, $SD = 1.31$), relationships with university faculty ($M = 2.91$, $SD = 1.31$), developing a course

of instruction (COI) and other curriculum materials ($M = 2.89$, $SD = 1.09$), issues from previous teacher ($M = 2.82$, $SD = 1.55$), and administrative support ($M = 2.73$, $SD = 1.17$).

Respondents expressed a moderate to strong agreement ($M = 4.56$, $SD = 1.35$) that

financial rewards were a problem for current teachers (Table 3). There was slight to moderate agreement that paperwork ($M = 4.21$, $SD = 1.27$), time management ($M = 3.77$, $SD = 1.07$), and balancing school and home activities ($M = 3.56$, $SD = 1.46$) were problems for current teachers.

Table 3^a*Severity of Problems Faced by Teachers at the Start of their Career and Currently*

	Beginning		Current	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Financial Rewards	4.73	1.27	4.56	1.35
Time Management	4.04	1.12	3.77	1.07
Paperwork	3.85	1.26	4.21	1.27
Balancing School and Home	3.73	1.39	3.56	1.46
Facilities-Equipment	3.70	1.19	2.77	1.03
Student Motivation	3.57	1.14	3.28	1.13
Discipline	3.51	1.21	2.85	1.10
Guidance Counselor	3.49	1.24	3.43	1.11
Special Needs Students	3.40	1.25	3.46	1.17
Undergraduate Preparation	3.28	1.10	2.80	1.17
Changes in FFA/Agriculture	3.25	1.02	3.11	1.18
Image of Agricultural Education	3.21	1.65	2.72	1.25
Budgets-Funding	3.02	1.18	3.06	1.16
Faculty/Peer Relationships	2.99	1.31	2.81	1.28
University Faculty Relations	2.91	1.31	2.72	1.36
Developing a COI	2.89	1.09	1.71	0.67
Issues from Previous Teacher	2.82	1.55	1.90	0.91
Administrative Support	2.73	1.17	2.64	1.20

Note. Likert scale of 1 to 6 with 1 representing *strongly disagree* and 6 representing *strongly agree*.

^a dashed lines denote divisions between Likert categories

The respondents expressed slight to moderate disagreement that the remaining 12 categories were problems for current teachers. The 12 categories included dealing with special needs students ($M = 3.46$, $SD = 1.17$), relationships with guidance counselor ($M = 3.43$, $SD = 1.11$), student motivation ($M = 3.28$, $SD = 1.13$), changes in FFA/agriculture ($M = 3.11$, $SD = 1.18$), budgets-funding for the program ($M = 3.06$, $SD = 1.16$), student discipline ($M = 2.85$, $SD = 1.10$), relationships with faculty/peers at the school ($M = 2.81$, $SD = 1.28$), undergraduate preparation to teach ($M = 2.80$, $SD = 1.17$), facilities-equipment ($M = 2.77$, $SD = 1.03$), image of agricultural education ($M = 2.72$, $SD = 1.25$), relationships with university faculty ($M = 2.72$, $SD = 1.36$), and administrative support ($M = 2.64$, $SD = 1.20$). Respondents expressed moderate to strong disagreement that issues from a previous teacher ($M = 1.90$, $SD = 0.91$) and developing a COI and other curriculum materials ($M = 1.71$, $SD = 0.67$) were problems for current teachers of agricultural education (Table 3).

Severity of Problems for Teachers of Agricultural Education Compared by Demographic Characteristics

A t -test statistical procedure was used to determine whether differences existed in the severity of the problems when compared by

gender. Differences in the severity of the problems were not significant ($\alpha > .05$) when compared by gender of the participants.

A t -test statistical procedure was used to determine whether differences existed in the severity of the problems when compared by the size of the department. Differences in two beginning teacher problems and two current teacher problems were significant ($\alpha \leq .05$). Teachers from multi-teacher departments ($M = 4.11$, $SD = 1.11$) rated balancing school and home activities higher as a beginning teacher problem than their single teacher counterparts ($M = 3.38$, $SD = 1.54$) (Table 4).

Teachers from single-teacher departments ($M = 3.19$, $SD = 1.12$) rated developing a COI and other instructional materials higher as a beginning teacher problem than teachers from multi-teacher departments ($M = 2.57$, $SD = 0.98$). Teachers from multi-teacher departments ($M = 3.98$, $SD = 1.38$) rated balancing school and home activities higher as a current teacher problem than their single teacher counterparts ($M = 3.13$, $SD = 1.45$). Teachers from multi-teacher departments ($M = 3.79$, $SD = 0.88$) rated problems with high school guidance counselors higher as a current teacher problem than their single teacher counterparts ($M = 3.08$, $SD = 1.22$) (Table 4).

Table 4
Severity of Problems Faced by Teachers Compared by Size of Department

	Multi-Teacher Department		Single-Teacher Department		Total		t value
	M	SD	M	SD	M	SD	
Beginning Teachers							
Balancing School & Home	4.11	1.11	3.38	1.54	3.73	1.39	2.08*
Developing a COI	2.57	0.98	3.19	1.12	2.89	1.09	-2.29*
Current Teachers							
Balancing School & Home	3.98	1.38	3.13	1.45	3.56	1.46	2.16*
Guidance Counselor	3.79	0.88	3.08	1.22	3.43	1.11	2.41*

Note. Likert scale of 1 to 6 with 1 representing *strongly disagree* and 6 representing *strongly agree*.

* $\alpha \leq .05$.

A one-way analysis of variance statistical procedure was used to determine whether differences existed in the severity of the problems when compared by years of teaching experience. The LSD post hoc analysis procedure was used to identify the nature of the differences. Differences in two beginning teacher problems and three current teacher problems were significant ($\alpha \leq .05$) (Table 5). The beginning problems included financial rewards of teaching ($F = 2.87$) and image of agricultural education ($F = 2.77$). The current problems included financial rewards of teaching ($F = 2.97$), paperwork associated with the job ($F = 3.48$), and facilities-equipment ($F = 3.70$). Respondents with 0-7 years of experience ($M = 5.37$, $SD = 0.85$) rated the financial reward problems for beginning teachers higher than teachers with 15-21 years of experience ($M = 4.02$, $SD = 1.55$). Teachers with 0-7 years of experience ($M = 3.98$, $SD = 1.78$) and teachers with 15-21 years of experience ($M = 3.65$, $SD = 1.24$) rated the image of agricultural education as a greater problem for beginning teachers than teachers with 22

years or more of experience ($M = 2.53$, $SD = 1.59$).

Respondents with 0-7 years of experience ($M = 5.79$, $SD = 0.40$) rated the financial reward problems for current teachers higher than teachers with 15-21 years of experience ($M = 3.98$, $SD = 1.52$) and teachers with 22 years or more teaching experience ($M = 4.43$, $SD = 1.13$). Teachers with 15-21 years of experience ($M = 3.40$, $SD = 1.26$) rated the paperwork associated with teaching as a smaller problem for current teachers than teachers with 0-7 years of experience ($M = 5.03$, $SD = 1.19$), 8-14 years of experience ($M = 4.65$, $SD = 1.19$), and 22 years or more of experience ($M = 4.28$, $SD = 1.13$). Teachers with 15-21 years of experience ($M = 2.29$, $SD = 0.77$) rated problems with equipment-facilities for current teachers lower than teachers with 0-7 years or experience ($M = 3.58$, $SD = .067$) and 8-14 years of experience ($M = 3.29$, $SD = 1.13$). Teachers with 22 years or more of experience ($M = 2.61$, $SD = 1.03$) rated problems with equipment-facilities for current teachers lower than teachers with 0-7 years of experience ($M = 3.58$, $SD = 0.67$).

Table 5

Severity of Problems Faced by Years of Teaching Experience

	Years Teaching Experience								Total	F	
	0-7 years		8-14 years		15-21 years		22 or more				
	M	SD	M	SD	M	SD	M	SD			
Beginning Teachers											
Financial Rewards ¹	5.37	.85	5.00	1.16	4.02	1.55	4.66	1.19	4.73	1.27	2.87*
Image of Agr Educ ²	3.98	1.78	3.18	1.68	3.65	1.24	2.53	1.59	3.21	1.65	2.77*
Current Teachers											
Financial Rewards ³	5.79	.40	4.85	1.30	3.98	1.52	4.43	1.26	4.56	1.35	2.97*
Paperwork ⁴	5.03	1.19	4.65	1.19	3.40	1.26	4.28	1.13	4.21	1.27	3.48*
Facilities-Equipment ⁵	3.58	.67	3.29	1.13	2.29	.77	2.61	1.03	2.77	1.03	3.70*

Note. Likert scale of 1 to 6 with 1 representing *strongly disagree* and 6 representing *strongly agree*.

¹LSD post hoc analysis procedure indicated 0-7 > 15-21.

²LSD post hoc analysis procedure indicated 0-7 > 22 or more, 15-21 > 22 or more.

³LSD post hoc analysis procedure indicated 0-7 > 15-21, 0-7 > 22 or more.

⁴LSD post hoc analysis procedure indicated 0-7 > 15-21, 8-14 > 15-21, 22 or more > 15-21.

⁵LSD post hoc analysis procedure indicated 0-7 > 15-21, 0-7 > 22 or more, 8-14 > 15-21.

* $\alpha \leq .05$.

Conclusions/Recommendations/ Implications

Conclusions and Discussion

Financial rewards for teaching were perceived as a moderate to strong problem for teachers as they entered the profession, and the issue remained a current problem for the teachers. Salaries continue to be an issue for many teachers in West Virginia because the state ranks 40th in the nation in salaries paid to their teachers (American Federation of Teachers, 2004). The issue of salaries as a problem for teachers was also well documented in the literature review (Croasmun et al., 1999; Fox & Certo, 1999; Self, 2001; U.S. Department of Education, 2002).

Teachers viewed time management, paperwork, and balancing school and home activities as a slight to moderate problem for beginning teachers as well as a slight to moderate problem for current teachers. The problems of time management (Godley et al., 1985; Mundt & Connors, 1999), paperwork (Karge, 1993; Mundt & Connors; Veenman, 1987), and balancing school and home activities (Godley et al., 1985; Mundt & Connors) were also represented in the literature. Respondents also felt facilities-equipment, student motivation, and discipline were slight to moderate problems for beginning teachers.

There were significant differences in the rating of balancing school and home activities as a problem for beginning teachers as well as current teachers when compared by the size of the department. Respondents from multi-teacher departments indicated slight agreement that the balancing school and home activities was a problem for beginning and current teachers. Respondents from single-teacher departments indicate slight disagreement that balancing school and home activities was a problem. There were significant differences in the rating of problems with guidance counselors for current teachers when compared by the size of the department. Respondents from multi-teacher departments indicated slight agreement that there were problems with guidance counselors and respondents from single-teacher departments

indicate slight disagreement that a problem existed.

On the seven problem areas where significant differences existed by years of experience, teachers with 0-7 years of experience rated the problems more severe than one or more of their counterparts in the other categories. When evaluated on the basis of the number of students in the program, teachers in the 50 students or less category rated problem areas lower than individuals in one or more of the other categories. Significant differences existed in seven beginning teacher problems and three current problems.

Recommendations/Implications

Team Ag Ed, the National FFA Organization, national and state education administrators, and local school administrators need to develop a plan to encourage students to enter the agricultural education teaching profession. Without the involvement and collaboration of these key stakeholders, the 10 x 15 goal will not be met. In addition, these groups of stakeholders must also develop strategies to retain these highly qualified individuals once they enter the profession.

The results of this study should be provided to teacher educators and other administrators in agricultural education. They should evaluate the results to determine whether changes should be made in preservice programs, induction programs, and general teacher in-service opportunities.

The study should be expanded beyond teachers in West Virginia. This will allow the researcher to determine whether similar trends exist in problems faced by teachers.

The research has widespread implications for agricultural education teacher preparation programs. The content of teacher education programs, the inservice opportunities provided for current teachers, induction and/or first-year teacher programs, and coordination between state departments of education and teacher preparation programs could, and should, be impacted by the results of this and similar research. By adequately preparing teachers at the preservice and entry levels to handle the potential problems of agricultural education

teachers, the profession can increase job satisfaction and reduce teacher attrition.

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