

THE IMPORTANCE OF AGRICULTURE SCIENCE COURSE SEQUENCING IN
HIGH SCHOOLS - A VIEW FROM COLLEGIATE AGRICULTURE STUDENTS

A Graduate Research Project

by

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ABSTRACT

The Importance of Agriculture Science Course Sequencing in High Schools - A View
from Collegiate Agriculture Students

(December 2009)

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The objective of this study was to investigate the importance of Agriculture Science course sequencing in high schools, as a preparatory factor for students enrolled in collegiate agriculture classes. With the variety of courses listed in the Texas Essential Knowledge and Skills (TEKS) for Agriculture Science, it has been possible for counselors, Agriculture Science Teachers, principals, or Career and Technology Education (CATE) directors to structure Agriculture Sciences courses offered based on personal preference, budgets or popularity among the students. In this study, students enrolled in agriculture courses at nine institutions across Texas were surveyed for their outlook on the importance of agriculture course sequencing in high school and if it had an effect on their preparation for agriculture curriculum in college.

ACKNOWLEDGMENTS

Thanks to all of the committee members and professors for their guidance and support in my quest for this degree. Your example has become my model. I only hope I can be as effective of an instructor as you have been to me.

I would especially like to thank my wife for her unending support throughout my collegiate endeavors. Monica, you always seem to know how to keep me on track.

Lastly, I would like to thank my students for their inquisitive interest in this project as well as their support. You are a daily reminder of why I chose to focus my research on this topic.

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CHAPTER I

INTRODUCTION

The Texas Education Agency (TEA) began an endeavor to modernize career and technology courses in 1986 as a response to House Bill 72. In their effort to diversify Agriculture Science in public schools, Agriculture I, II, III, IV and Agriculture Mechanics evolved into specialized courses. Because of this transformation, 29 different courses were accessible by 1995 and by 2009; there are more than fifty. The implementation in September 1998 of TEKS (Texas Essential Knowledge and Skills) for the successive Agriculture courses allowed for an expanding and focused curriculum that would be advantageous for students and teachers alike.

While different courses being taught does mean that a teacher would be required to do more paperwork such as: different lesson plans, worksheets and tests; instructors are able to establish prerequisite courses to insure that advanced classes progress efficiently with a minimal amount of materials review needed. The assortment of subject matter allows students pursuing agriculture as a career a method of structuring their studies when advised effectively by teachers, counselors, administrators and other mentors. This also would assist in the transition to a post secondary education by establishing familiarity with the student's chosen field of study.

Research data from the surveys administered to current college students were anticipated to give a view of the success of course sequencing in collegiate preparation and show if counselors, teachers and administrators recognized the usefulness and importance. Information collected from the students should also indicate if they felt course sequencing was important for their success in college Agriculture classes.

CHAPTER II
METHODOLOGY

Beginning in December 2008, professors at 15 post-secondary schools were contacted by email, phone call and in person about participation in this research, professors at nine institutions (three junior colleges and six universities) across the state agreed (see Figure 1). After their favorable response, those professors were then contacted again in March 2009 by additional emails and phone calls about facilitating their survey participation for this study. In August 2009, the participating nine professors were once again contacted prior to being sent a set of course sequencing surveys with instructions. There were a total of 500 surveys sent with 387 returned completed by October 2009.

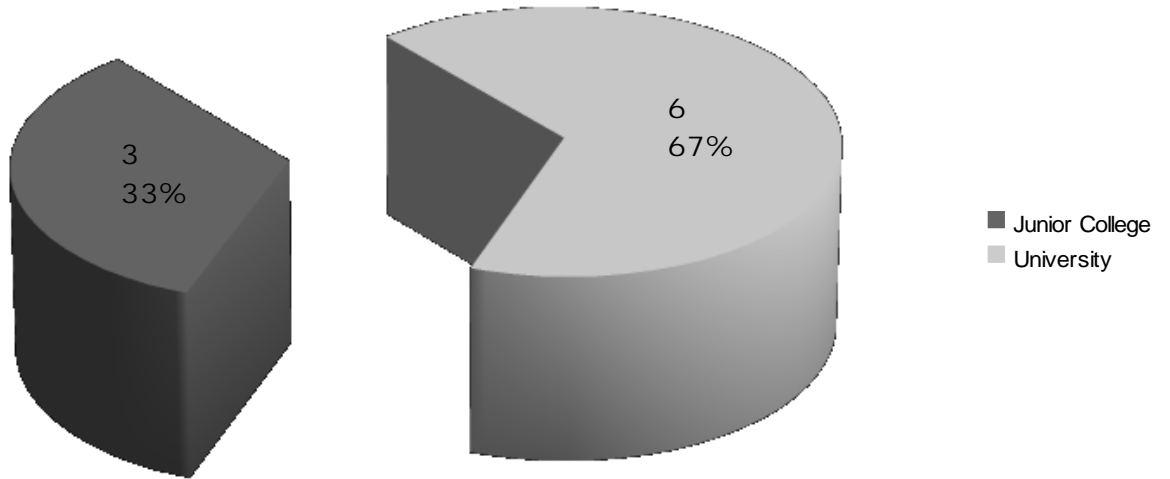


Figure 1. *Comparison of Institutions Surveyed*

The student survey form was designed to be completed with the anonymity of the institutions, students, and their high schools being assured for the integrity of the findings. The universities were assigned a number from one to six and the junior colleges were assigned a number from one to three in order that each institution's results could be tracked to examine further any patterns that arose. The contact professors were instructed by the enclosed letter to select random classes in which to distribute the surveys (Appendix A) for completion and return finished forms in the provided self-addressed stamped envelopes.

The survey form was outlined as a check off list with a number of areas where additional information could be written if the student chose to elaborate. It asked questions in reference to 44 common agriculture courses, the semesters that classes were taken, number of Agriculture Science Teachers (ASTs), advisement of course selection, opinion of importance of course sequencing, collegiate classification, year of high school graduation and participation in FFA (formerly known as Future Farmers of America). A copy of the survey is included as Appendix B. This evaluation was intended to offer an anonymous background on each student so any patterns or trends would be identified during the collection of results.

The students were first asked to check off which of the 44 classes they had taken in high school. Participants were asked to select which of the following choices best indicated who advised their course selection. The choices for advisement were principal, counselor, consultant, CATE (Career and Technology) Director, assistant principal, Agriculture Science Teacher and other. The choice of "other" was given so that people such as family members, friends and employers could be represented. The next question

was to specify what semesters they had taken Agriculture. Students were then asked to check off which of those same 44 classes listed they wished they had taken while in high school and if that selection was based on the belief those courses would have better prepared them for college. Following that, students were asked to select the number of Agriculture Science Teachers (ASTs) they had during high school. The choices given were from one to seven with an option of “other” for anyone who may have had more than seven ASTs or the possibility of not having Agriculture Science available in high school. Next, the students were asked how important they felt course sequencing was for college preparation. Then, as additional background demographic information, the participants were asked their current college classification, major, year of graduation from high school, activity in the FFA and the areas of the FFA in which they had competed.

This survey was designed to be completely neutral, making no distinction between the collegiate classification, major field of study or geographical location of the participants. Additional anonymity was secured with the institutions being differentiated by numbers assigned to them in the order the surveys were returned. With the guarantee of total secrecy established, students participating in the survey were able to give an accurate outlook and their honest opinions on high school agriculture classes in relation to preparation for college courses.

CHAPTER III

RESULTS AND DISCUSSION

Five hundred surveys were distributed to the participating educators in August 2009 with a return of 387 (77%) being completed and returned before October 2009. Of the nine participating institutions, the junior colleges had the highest percentage of return rate followed by universities 2 and 6 (see Figure 2). The data was gathered from the completed surveys and analyzed for trends and patterns, with the results to be found in the following paragraphs.

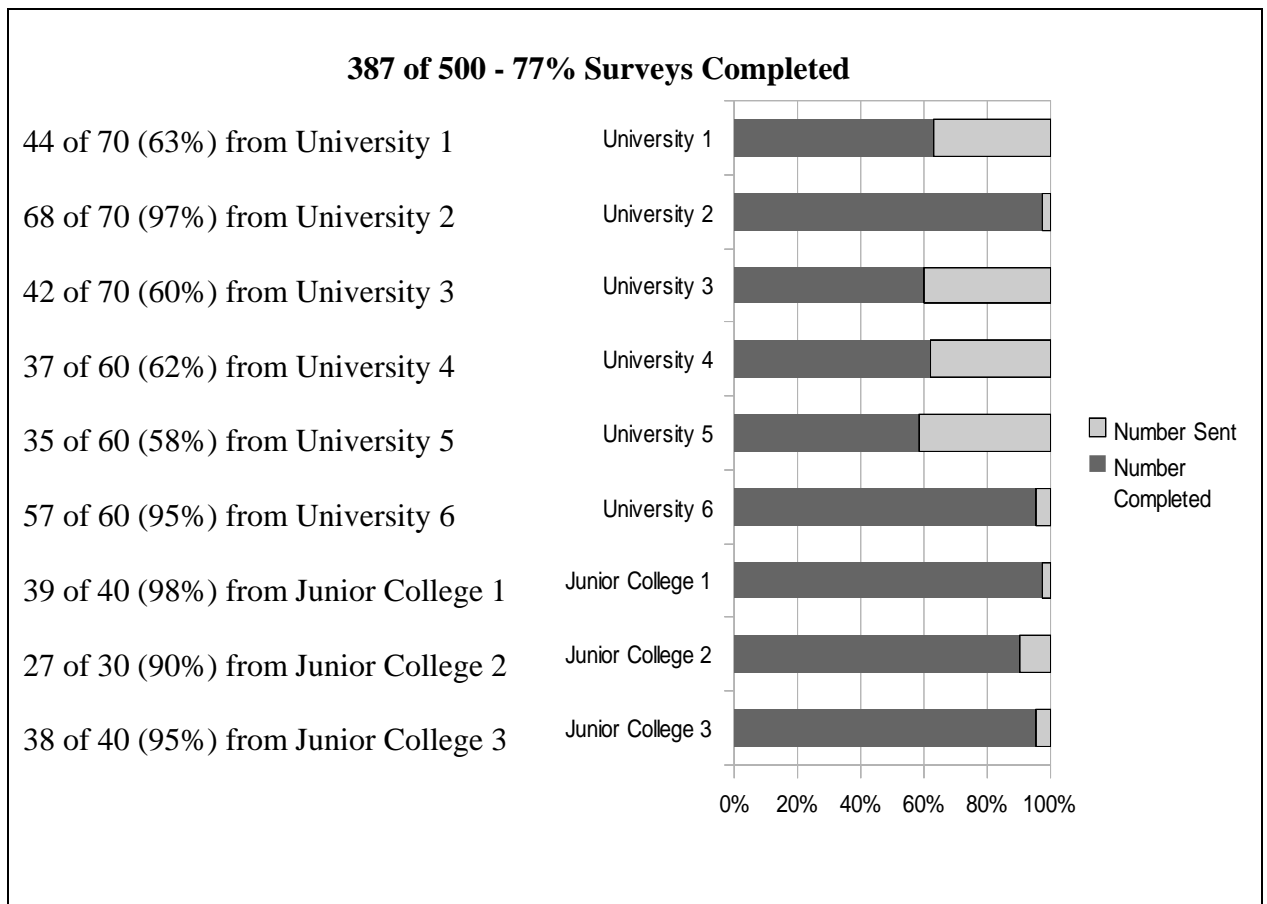


Figure 2. *Institution Participation and Response*

The returned surveys indicated that 95.09% of students polled felt course sequencing was moderately to very important, while 4.91% felt that it was not significantly important. Out of 387 students polled, there were 176 (45.48%) that felt course sequencing was very important, 192 (48.61%) feeling it was moderately important and 19 (4.91%) that felt course sequencing was of no importance (see Figure 3). Of the 387 students participating there were 124 freshmen (32.04%), 93 sophomores (24.03%), 81 juniors (20.93%), 71 seniors (18.34%) and 18 graduate students (4.65%) (see Figure 4). There appeared to be a correlation between the survey participant's collegiate classification and the student's opinions of course sequencing. Freshmen and sophomores indicated that sequencing was less important to them than the juniors, seniors and graduate students (see Table 1, Figure 5). This significant pattern developed early in the process of the survey data collection and continued throughout.

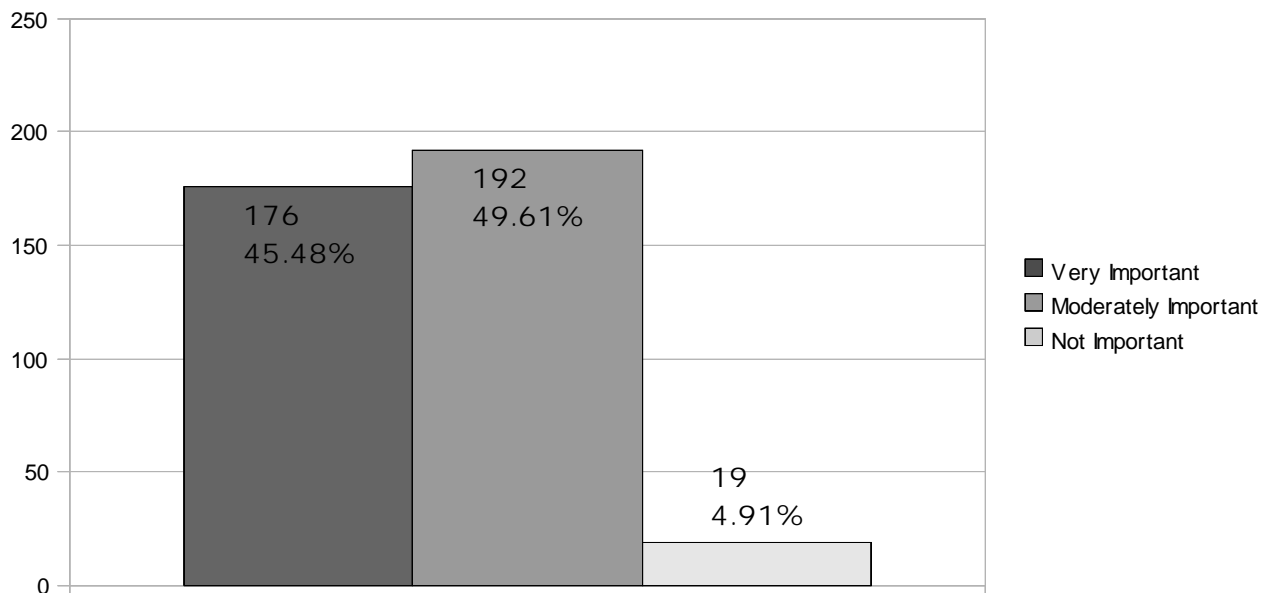


Figure 3. *Course Sequencing Importance Overview*

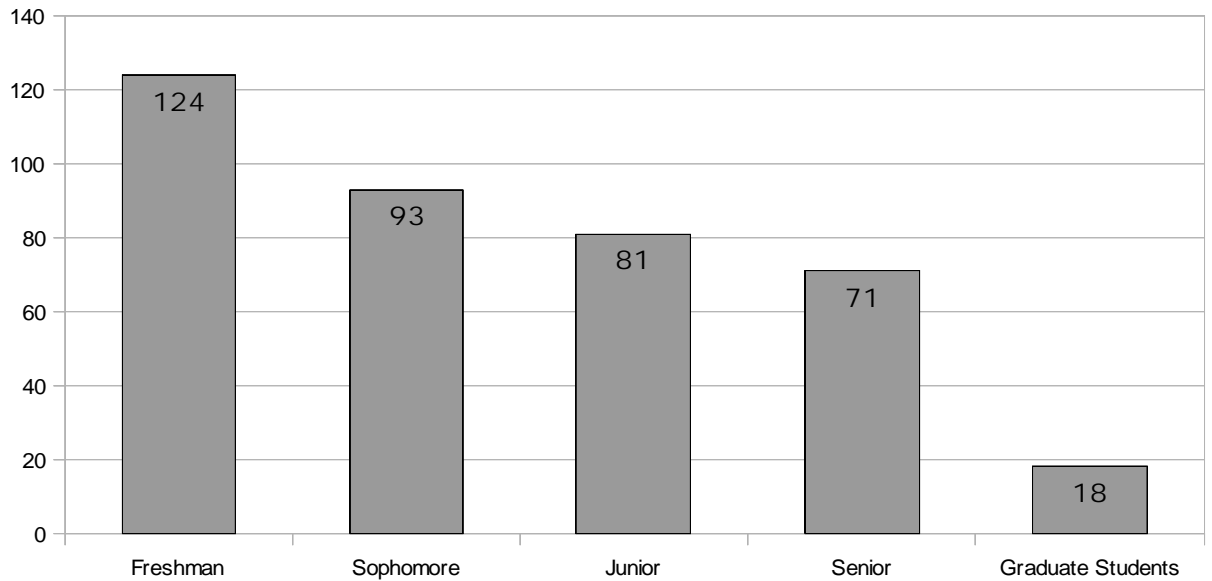


Figure 4. *College Classification of Students Surveyed*

Table 1. *Classification of Survey Participants and Importance of Class Sequencing*

Collegiate Classification	Number Surveyed	Very Important	Moderately Important	Not Important
Freshman	124	37	76	11
Sophomore	93	31	55	7
Junior	81	37	41	3
Senior	71	36	32	3
Other (Graduate Students)	18	11	7	0

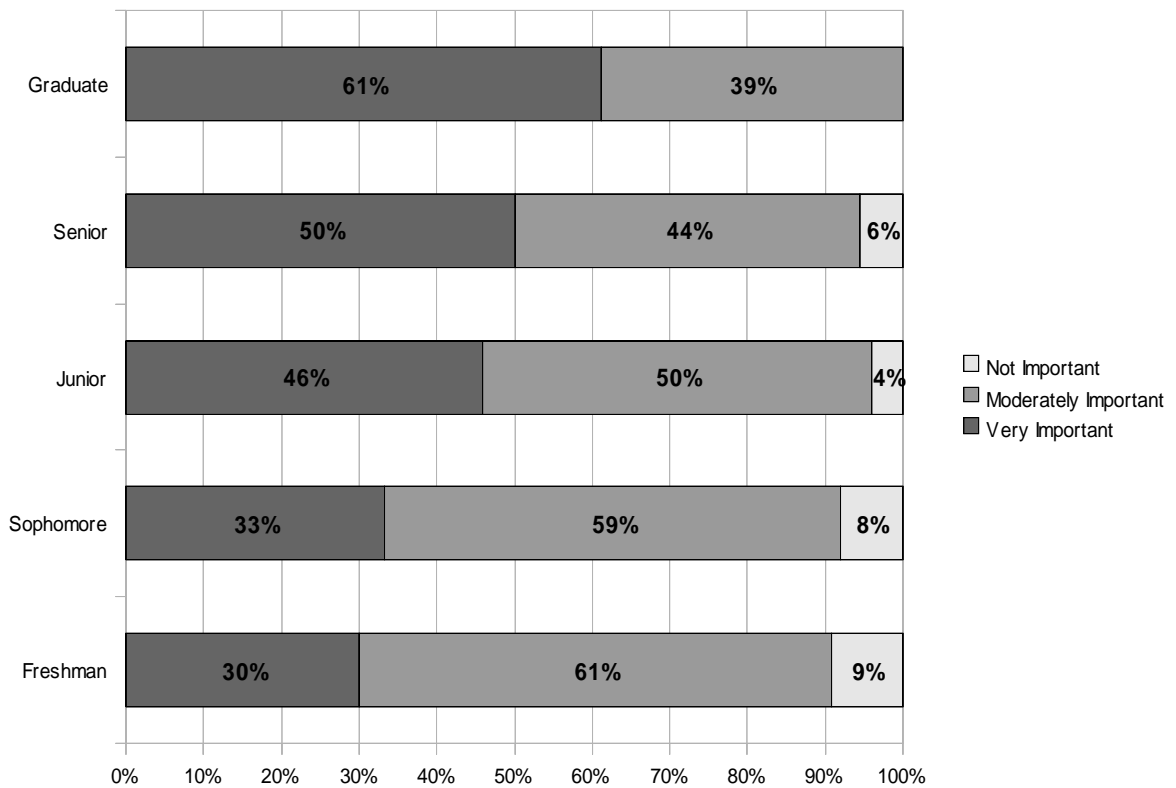


Figure 5. *Course Sequencing Opinion by Collegiate Classification*

There were some unforeseen results collected from the data of the surveys. One result speculated, but not actually anticipated, were students enrolled in college agriculture courses that indicated they did not have Agriculture Science classes available to them in high school. However, of those 18 students, all indicated that they would have taken Agriculture Science if it had been offered and they felt sequencing in high school agriculture courses would have been beneficial for classes in college. Of the 18 students that did not have access to high school Agriculture Science courses, six were from a state other than Texas and the remaining 12 attended schools in Texas where Agriculture was not offered in their Career and Technology Departments.

A second unanticipated result were three students that graduated prior to the transition from Agriculture I, II, III, IV and Agriculture Mechanics to the now more specialized courses implemented in an effort to modernize high school agriculture classes. Again, this minority of students indicated that they also felt that effective course sequencing would be beneficial for college preparation. In addition to those three, an additional 20 students graduated from high school prior to the implementation of Texas Essential Knowledge and Skills (TEKS) in September 1998. There were an additional 11 students polled that had graduated high school from the years 1999 and 2000 with the remaining 353 students having graduated from the years 2001 to 2009 (see Table 2).

Table 2. *Years of Participant High School Graduation*

Year of High School Graduation	1987	1988	1990	1991	1992	1993	1994	1995	1996	1997	1998
Participants	1	2	1	1	3	3	4	0	0	2	6

Year of High School Graduation	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Participants	9	2	4	6	7	13	29	36	63	76	118

Students were asked to indicate out of the 44 courses listed which ones they had taken during their high school career. By the results returned, a clear pattern appears for leaders in this area of the survey (see Table 3). The numbers and percentages of courses taken indicate that Introduction to World Agriculture Science(56.07%) and Animal Science (53.23%) were the most frequently taken by those surveyed, followed by Introduction to Agriculture Mechanics (46.25%), Applied Agriculture Science (40.82%), Agriculture Mechanics (39.01%), Wildlife and Recreation Management (33.34%), and Agricultural Metal Fabrication (31.52%) . The remaining 37 courses were taken by 28% or less of the students surveyed. The students were also asked to indicate which of those same 44 courses they wished they had taken while in high school. The results in this category also had classes that stood out in student selection. Nine courses of the 44 listed had close numbers calculated in comparison to the other 35 listed. In descending order of selection, the courses chosen were Animal Production (27.65%), Advanced Animal Science (22.48%), Animal Science (21.71%), Equine Science (21.71%), Range Management and Ecology (20.67%), Wildlife and Recreation Management (19.12%), Meats Processing (17.05%), Plant and Animal Production (15.25%) and Agribusiness Management and Marketing (15.25%). The 35 classes left were selected by less than 15% of those surveyed. Of the 44 courses used in this research, all had been taken by at least three students and were wished taken by at least ten students.

Table 3. *Break Down of Classes Taken in Comparison to Wished Taken*

Course	Taken	Wished Taken
Introduction to World Agriculture Science	217	21
Applied Agriculture Science	158	15
Energy and Environmental Technology	4	19
Exploring Aquaculture	15	25

Table 3. Continued

Introduction to Horticultural Science	5	13
Introduction to Agriculture Mechanics	179	28
Home Maintenance and Improvement	63	21
Food Technology	37	29
Plant and Animal Production	109	59
Agribusiness Management and Marketing	20	59
Advanced Agribusiness Management	10	35
Entrepreneurship In Agriculture	18	34
Computer Applications In Agriculture	15	21
Wildlife and Recreation Management	129	74
Range Management and Ecology	43	80
Forestry and Wood Technology	16	32
Environmental Technology	6	12
Landscape Design	32	32
Horticultural Plant Production	36	11
Floral Design	45	25
Advanced Floral Design	31	12
Plant and Soil Science	42	40
Fruit, Nut and Vegetable Production	5	17
Personal Skills Development	44	21
Agriculture Communications	29	35
Agriculture Structures Technology	32	19
Agricultural Metal Fabrication	122	31
Agriculture Power Technology	33	26
Animal Production	74	107
Agricultural Electronics	4	23
Specialty Agriculture	16	33
Animal Science	206	84
Advanced Animal Science	74	87
Advanced Plant and Soil Science	17	31
Equine Science	96	84
Applied Entomology	5	11
Agricultural Biotechnology	3	20
Agriculture Science and Technology Independent Study	17	10
Aquaculture Production	16	19
Agricultural Resources	16	19
Meats Processing	25	66
Horticulture	55	34
Agriculture Power and Machinery	44	33
Agriculture Mechanics	151	45

The participants were then asked who their advisors were for course selection and were allowed to check off all of those people who had acted as such. The results indicated that of the seven choices, assistant principal (0.23%), consultant (0.69%) and CATE Directors (0.69%) had the least influence on student course selections. Principals were the next least influential with only 4.35% of students choosing them to act as course advisors. The category of “other” (16.25%) was included to take into consideration the influence of people such as family members, friends and employers on a student’s course selection. Data shows that there was a very close split between ASTs (39.82%) and counselors (37.99%) acting as the advisors influencing student course selection (see Table 4).

Table 4. *Course Selection Advisory*

Advisor	Number of Students	Percentage
Principal	19	4.35%
Counselor	166	37.99%
Consultant	3	0.69%
CATE Director	3	0.69%
Assistant Principal	1	0.23%
Agricultural Science Teacher	174	39.82%
Other	71	16.25%

A surprising result were the number of the college agriculture students surveyed that did not take Agriculture their freshman and sophomore years of high school. Only 69.25% of students took Agriculture the fall of their freshman year, with 67.44% taking Agriculture in the spring. As sophomore, only 68.22% of the students were enrolled in the fall and 69.25% were in the spring. The junior year the number shifts slightly to 71.83% in the fall and 73.64% in spring. As seniors in high school, the numbers once again climb slightly to 74.94% and falling back to 73.64% in spring. Of the students

polled, there is a definite fluctuation between the semesters courses were able to be taken (see Figure 6). This data shows evidence that students are no longer able to take Agriculture every semester of their high school tenures. This also led to some speculation that the impact of high school Agriculture Science courses, as upperclassmen, directly influences collegiate majors.

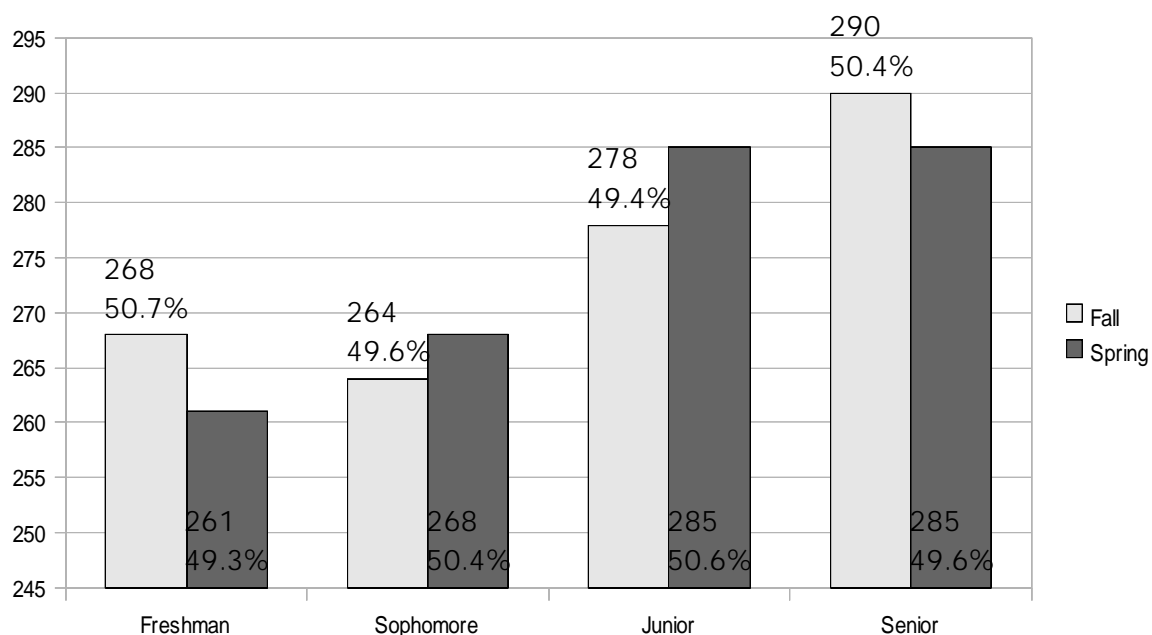


Figure 6. *Semesters Agriculture Science was Taken in High School*

The surveyed students were asked of those Agriculture courses they indicated that they wished they had taken while in high school, was their selection based on their belief that those classes better would have better prepared them for their collegiate degree. Two-hundred and eighty-five (73.6%) of the students acknowledged that they did feel that those classes would have better prepared them for curriculum at the collegiate level. The other 102 (26.4%) indicated the courses they wished they had taken were not based on any apparent advantages for collegiate classes (see Figure 7).

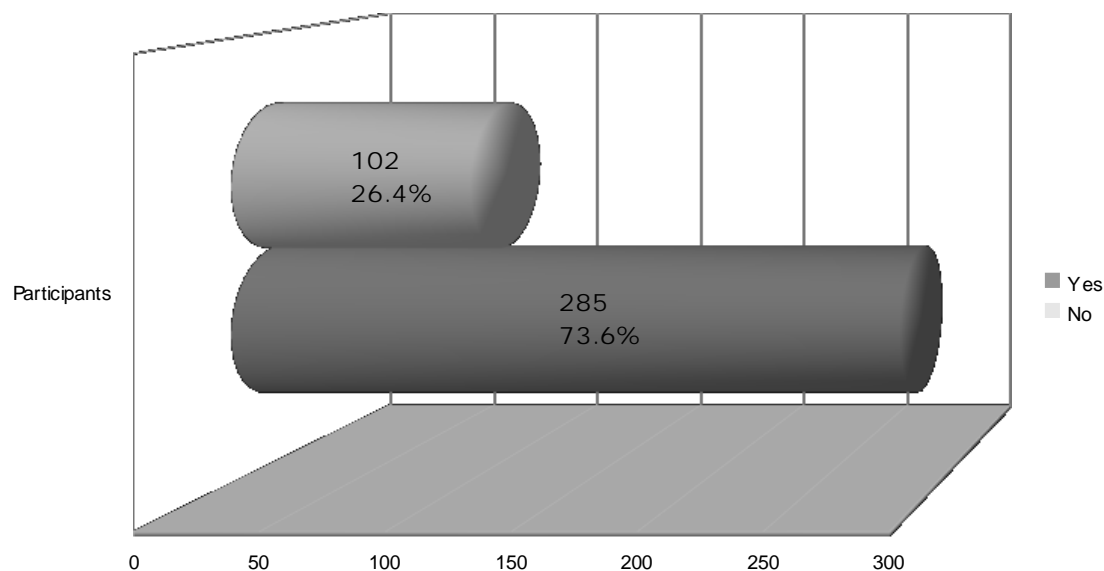


Figure 7. *Were Courses Wished Taken Based on Collegiate Preparation*

The students polled were asked to specify the number of ASTs that were teaching at their high school while they were taking Agriculture. The survey had an area to check the numbers one through seven and the category of “other” for anyone who may have had more than seven ASTs or attended a school that did not have an Agriculture Science Department. There was a high number (85.1%) of students that reported that they had one to three Agriculture Science Teachers teaching in their high school Agriculture program. Even more surprising was the fact that 70.3% of those 85.1% had only one or two Agriculture Science Teachers (ASTs). The 18 (4.6%) responses in the choice of “other” were all students that did not have Agriculture available to them in their high school (see Table 6).

These percentages point to a pattern that indicated a correlation between the number of ASTs and the range of courses offered. The variety of choices may not have been available because of the lack of instructors and class periods; which affects the

process of proper course sequencing. This would give the impression that there is a need to increase the number of Agriculture Science Teachers in high school programs. With an increase in the teacher to student ratio, the additional class periods would make available areas for scheduling a properly sequenced agriculture curriculum and ultimately better prepare students for college.

Table 5. *Number of Agriculture Science Teachers During High School Tenure*

No. of ASTs	No. of Students	Percentage
1	144	36.8%
2	131	33.5%
3	58	14.8%
4	28	7.2%
5	7	1.8%
6	1	0.3%
7	4	1.0%
Other (0)	18	4.6%

One noteworthy area of the study asked the participants to indicate their collegiate major. Ten common major fields of study were provided for selection; additionally a choice of “other” was given so that the students could write in any major they were studying that was not on the list provided. Of the 387 students surveyed, nine indicated that they currently had dual majors. The majors written in under the section “other” consisted of majors such as Agriculture Technology, Agriculture Leadership, Agriculture Economics and Agriculture Communications.

The top three major fields of study listed by students were Agriculture Education (31.57%), Animal Science (25.58%) and Agribusiness (10.62%). Of the 387 students

polled, none indicated pursuit of a degree in Agriculture Mechanics. In contrast to this lack of interest in this major field of study, numbers show that a large number surveyed took multiple high school classes relating to agriculture mechanics (Table 3, pg. 10, 11). In the data provided by students surveyed, 595 total classes were taken in the area of agriculture mechanics; this was concluded from eight of the 44 courses listed on the survey. However, other than a degree in Agriculture Mechanics, of which none of the participants taking this survey was pursuing, only a select number of college majors have a need for this large amount of concentration.

Areas that indicate a high percentage of majors but fewer correlating sequenced courses being taken at the high school level were Agriculture Business and Animal Science. Agribusiness Management and Marketing was the eighth most popular course (15.25%) wished taken and Agribusiness is in the top three majors (10.62%) being pursued. Animal Science was indicated as the second most frequently taken course (53.23%) at the high school level and is also the second most popular college major (25.58%), however the subsequent Advanced Animal Science and Animal Production courses each only had 19% participation of the students polled. Animal Production was indicated to be the course that was the most wished taken at 27.65%. As was previously discussed the grouping of “other” on the survey provided the participants a place to write in any additional college majors they may be pursuing in the field of agriculture. This does include majors such as Agriculture Technology, Agriculture Leadership, Agriculture Economics and Agriculture Communications. This would suggest that a high school curriculum that includes several sequenced technologically based courses would be a constructive change to assist students at the next level.

Table 6. *Majors of Survey Participants*

Majors	Number of Students	Percentage
Agriculture Education	125	31.57%
Agriculture Production	5	1.26%
Agriculture Science	8	2.02%
Agribusiness	42	10.61%
Horticulture/Agronomy	7	1.77%
Meat Science	2	0.51%
Ranch & Feedlot	4	1.01%
Animal Science	99	25.58%
Wildlife Management	12	3.03%
Equine Science	10	2.53%
Other	82	20.71%

Background on the students evaluated shows that 300 of the 387 (78%) were active FFA members in their chapter. While this was only a question posed to offer a better understanding of the participants, it was surprising that 22% were not active members of the FFA (see Figure 8). Allowing for the 18 students that did not have Agriculture available to them, there were still 69 students (18%) that indicated they were not active in the FFA. This is an area that could be further analyzed in a later study. Of those students that were active in FFA, the areas of student participation were Livestock Production 33%; Agriculture Mechanics Production 14%, Leadership Development 29% and Career Development 24% (see Figure 9).

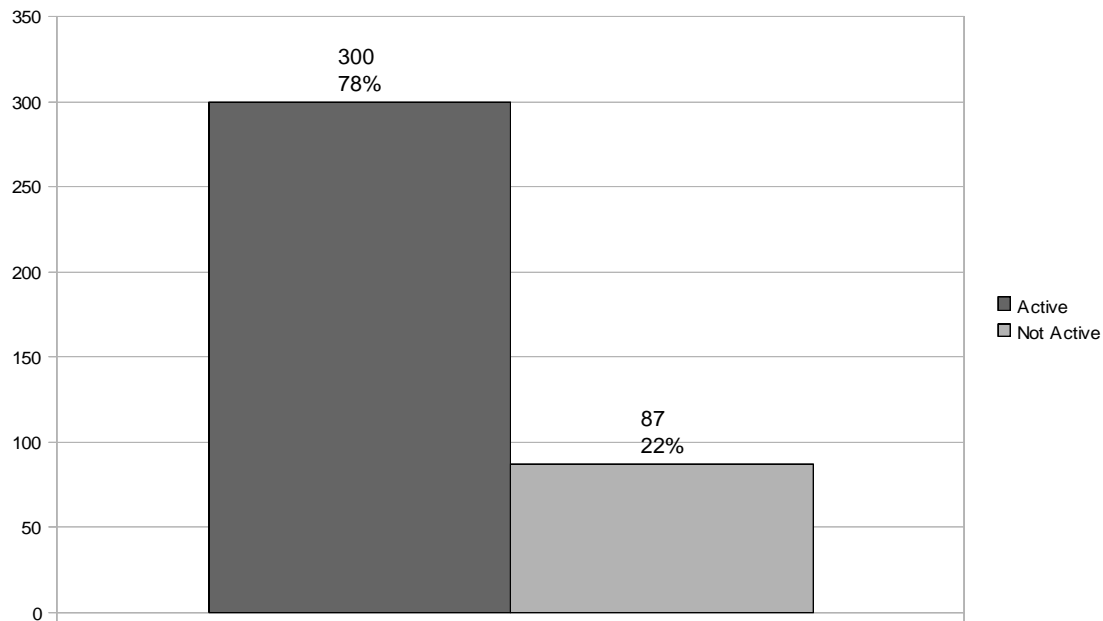


Figure 8. Active FFA members

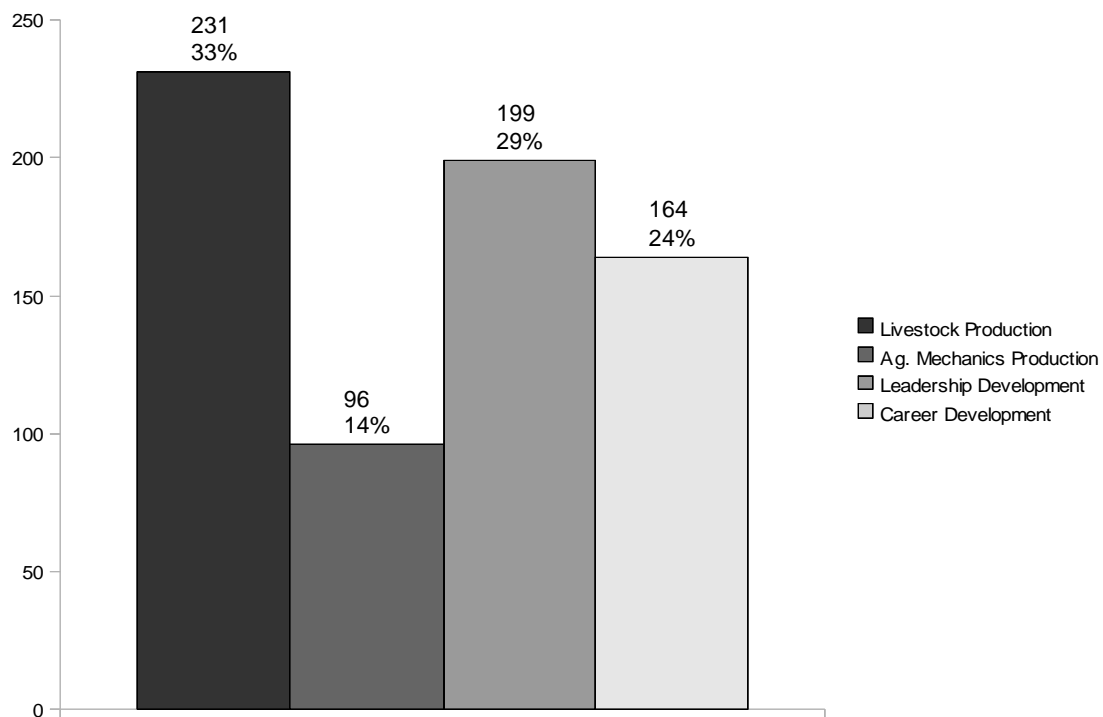


Figure 9. Areas of FFA Participation

CHAPTER IV

CONCLUSION

Information gathered from this survey does support the conclusion that college students taking Agriculture feel that sequencing of courses in high school is important for preparation and success in college. The opinion of how important does vary slightly according to college classification; however, it shows as the collegiate career advances students begin to recognize the foundation it can give. A surprising detail, which became known with the data collection, was that the students that were not able to take the current agriculture classes felt that if they had been given that opportunity they would have become better prepared for college programs of study.

A disappointing, however not surprising, fact was that the data supports an opinion that counselors and ASTs tend to advise course selection based upon personal preferences or course popularity among students, instead of structuring course sequencing that would best prepare students for collegiate curriculum. While there is no way of accurately measuring, some of the surveys show somewhat of a logical sequence of courses, whereas the majority of those surveyed showed the high school agriculture courses taken were extremely random in nature with no order or balance to sequencing.

Courses relating to floral design and agricultural mechanics are among the most popular classes; however, they can be costly to purchase materials for when multiple sections are being taught. These classes are some that could be considered among the more traditional; while some of the lesser taught classes are technologically based and require access to computer labs. This may be a factor for not including them in high school agriculture curriculum because of the space and expense of constantly changing

technologies. However, with more careers in agriculture requiring technological background the investment would be beneficial to all classes taught including those deemed more traditional. A well-informed counselor and willing AST could advance the efficiency of Agriculture Science courses with the use of computer skills and knowledge.

While effective course sequencing does require advisors to carry out additional counseling and considerations for course selection and scheduling, it would be an advantage to students wanting to pursue a marketable Agriculture degree. Additional improvements could be anticipated in a possible decrease of college dropouts or agriculture students who change to non-agriculture majors due to difficulties with challenging and unfamiliar curriculum.

CHAPTER V

RECOMMENDATIONS

Implementation of the revised Texas Essential Knowledge and Skills (TEKS); consisting of new course curriculum in the area of the Agriculture, Food and Natural Resources Cluster, takes effect in the fall of 2010 in Texas Public Schools. With these changes in grouping of subject matter, a follow-up study should be executed five years later, in 2015, and include an examination of the following:

- a) The impact of course sequencing under the new TEKS as viewed by current collegiate agriculture students.
- b) What type of counseling was received on Agriculture Science course selections while in high school?
- c) A comparison of the views of students who graduated prior to TEKS changes in 2010 to those that graduated after the reconstruction.
- d) How many students are pursuing Agriculture degrees in the state of Texas that attended high school somewhere other than in Texas?

Another topic that should be studied further is the matter of those students that did not take any Agriculture Science courses in high school; whether by choice or because their high school did not offer it in the curriculum. These areas should be addressed:

- a) Why did those students choose to pursue a degree in the field of agriculture?
- b) Do they feel they will or that they have been affected by a lack of foundation they should have received in Agriculture Science courses taken in high school?

While active FFA membership and areas of competition were investigated to some extent in this analysis, the following areas should be examined in more depth in a follow-up study:

- a) Did FFA contests or team competitions have any impact on course selections?
- b) Were FFA Teams trained during scheduled class time?
- c) Were FFA team members selected from students enrolled in the same course and class period?
- d) Were students who were FFA members given the option of choosing which Leadership Development Event (LDE) or Career Development Event (CDE) team on which they would participate?

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APPENDICES

Appendix A

Dear _____,

Thank you for agreeing to assist me in administering this survey. The process should only take participants approximately 5-7 minutes to complete.

Please feel free to administer survey to all classification of students pursuing a degree in:

- Agribusiness
- Agricultural Production
- Agricultural Science Education
- Agronomy
- Animal Science
- Equine Science
- Horticultural Science
- Meat Science
- Ranch & Feedlot
- Soil Science
- Wildlife Management

After completion of administering survey, please place forms in self addressed envelope provided and mail back to me. Once again, thank you for your time and assistance in this project.

Sincerely,

Robin P. Wheelus, AST-Beeville

Appendix B

HIGH SCHOOL AGRICULTURAL SCIENCE COURSE SURVEY

Check off all the Agricultural Science Courses you took when you were in High School.

- | | |
|---|--|
| <input type="checkbox"/> Intro. World Ag Science (Ag 101) | <input type="checkbox"/> Applied Ag. Science (Ag 102) |
| <input type="checkbox"/> Energy & Environmental Tech. | <input type="checkbox"/> Exploring Aquaculture |
| <input type="checkbox"/> Intro. to Horticultural Science | <input type="checkbox"/> Intro.to Ag Mechanics |
| <input type="checkbox"/> Home Maintenance & Improvement | <input type="checkbox"/> Food Technology |
| <input type="checkbox"/> Plant & Animal Production | <input type="checkbox"/> Agribusiness Management & Marketing |
| <input type="checkbox"/> Advanced Agribusiness Management | <input type="checkbox"/> Entrepreneurship in Agriculture |
| <input type="checkbox"/> Computer Applications in Ag. | <input type="checkbox"/> Wildlife & Recreational Management |
| <input type="checkbox"/> Range Management & Ecology | <input type="checkbox"/> Forestry & Wood Technology |
| <input type="checkbox"/> Environmental Technology | <input type="checkbox"/> Landscape Design |
| <input type="checkbox"/> Horticultural Plant Production | <input type="checkbox"/> Floral Design |
| <input type="checkbox"/> Advanced Floral Design | <input type="checkbox"/> Fruit, Nut, & Vegetable Production |
| <input type="checkbox"/> Personal Skill Development | <input type="checkbox"/> Agricultural Communications |
| <input type="checkbox"/> Agricultural Structures Technology | <input type="checkbox"/> Agricultural Metal Fabrication |
| <input type="checkbox"/> Agricultural Power Technology | <input type="checkbox"/> Agricultural Electronics |
| <input type="checkbox"/> Specialty Agriculture | <input type="checkbox"/> Animal Science |
| <input type="checkbox"/> Advanced Animal Science | <input type="checkbox"/> Plant & Soil Science |
| <input type="checkbox"/> Advanced Plant & Soil Science | <input type="checkbox"/> Equine Science |
| <input type="checkbox"/> Applied Entomology | <input type="checkbox"/> Agricultural Biotechnology |
| <input type="checkbox"/> Ag Sci. & Tech. Independent Study | <input type="checkbox"/> Aquaculture Production |
| <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Meats Processing |
| <input type="checkbox"/> Horticulture | <input type="checkbox"/> Ag Power & Machinery |
| <input type="checkbox"/> Agricultural Mechanics | <input type="checkbox"/> Animal Production |

Who advised you on your course selection?

- Principal
- Counselor
- Consultant
- CATE Director
- Assistant Principal
- Agricultural Science Teacher
- Other

Indicate which semesters you took Agricultural Science Courses?

- | | | |
|-----------|-------------------------------|---------------------------------|
| Freshman | <input type="checkbox"/> Fall | <input type="checkbox"/> Spring |
| Sophomore | <input type="checkbox"/> Fall | <input type="checkbox"/> Spring |
| Junior | <input type="checkbox"/> Fall | <input type="checkbox"/> Spring |
| Senior | <input type="checkbox"/> Fall | <input type="checkbox"/> Spring |

Appendix B - continued

Check off the Agricultural Science Courses you wished you would have taken in High School. (Limit your number of choices to your allotted number of electives)

- | | |
|---|--|
| <input type="checkbox"/> Intro. World Ag Science (Ag 101) | <input type="checkbox"/> Applied Ag. Science (Ag 102) |
| <input type="checkbox"/> Energy & Environmental Tech. | <input type="checkbox"/> Exploring Aquaculture |
| <input type="checkbox"/> Intro. to Horticultural Science | <input type="checkbox"/> Intro.to Ag Mechanics |
| <input type="checkbox"/> Home Maintenance & Improvement | <input type="checkbox"/> Food Technology |
| <input type="checkbox"/> Plant & Animal Production | <input type="checkbox"/> Agribusiness Management & Marketing |
| <input type="checkbox"/> Advanced Agribusiness Management | <input type="checkbox"/> Entrepreneurship in Agriculture |
| <input type="checkbox"/> Computer Applications in Ag. | <input type="checkbox"/> Wildlife & Recreational Management |
| <input type="checkbox"/> Range Management & Ecology | <input type="checkbox"/> Forestry & Wood Technology |
| <input type="checkbox"/> Environmental Technology | <input type="checkbox"/> Landscape Design |
| <input type="checkbox"/> Horticultural Plant Production | <input type="checkbox"/> Floral Design |
| <input type="checkbox"/> Advanced Floral Design | <input type="checkbox"/> Fruit, Nut, & Vegetable Production |
| <input type="checkbox"/> Personal Skill Development | <input type="checkbox"/> Agricultural Communications |
| <input type="checkbox"/> Agricultural Structures Technology | <input type="checkbox"/> Agricultural Metal Fabrication |
| <input type="checkbox"/> Agricultural Power Technology | <input type="checkbox"/> Agricultural Electronics |
| <input type="checkbox"/> Specialty Agriculture | <input type="checkbox"/> Animal Science |
| <input type="checkbox"/> Advanced Animal Science | <input type="checkbox"/> Plant & Soil Science |
| <input type="checkbox"/> Advanced Plant & Soil Science | <input type="checkbox"/> Equine Science |
| <input type="checkbox"/> Applied Entomology | <input type="checkbox"/> Agricultural Biotechnology |
| <input type="checkbox"/> Ag Sci. & Tech. Independent Study | <input type="checkbox"/> Aquaculture Production |
| <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Meats Processing |
| <input type="checkbox"/> Horticulture | <input type="checkbox"/> Ag Power & Machinery |
| <input type="checkbox"/> Agricultural Mechanics | <input type="checkbox"/> Animal Production |

Did you base your “wishful” decisions on courses you feel would have been better preparatory for your collegiate degree?

- Yes No

Indicate the number of Agricultural Science Teachers that were teaching classes at your alma mater during your High School tenure?

- 1 2 3 4 5 6 7 Other

How important do you feel course sequencing of High School Agricultural Science courses is in relation to the preparation of students for Collegiate Degrees?

- Very Important Moderately Important Not Important

Appendix B - continued

What is your collegiate classification?

- Freshman Sophomore Junior Senior Other

What is your major?

- Agricultural Education
 Agricultural Production
 Agricultural Science
 Agribusiness
 Animal Science
 Equine Science
 Horticulture/Agronomy
 Meat Science
 Ranch & Feedlot
 Wildlife Management
 Other _____

What year did you graduate from High School? _____

Were you an active member in your FFA Chapter?

- Yes No

Check off the areas of FFA competition you participated in:

- Livestock Production
 Ag Mechanics Production
 Leadership Development
 Career Development
 Other

Thank you for your responses

