

CURRICULUM IN AGRICULTURE EDUCATION: AGRIBUSINESS

Approved by Richard Rogers on November 13, 2011

CURRICULUM IN AGRICULTURE EDUCATION: AGRIBUSINESS

A Seminar Paper

Presented to

The Graduate Faculty

University of Wisconsin-Platteville

In Partial Fulfillment of the
Requirement for the Degree

Masters of Science

in

Education

Adult Education

by

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2010

Abstract

CURRICULUM IN AGRICULTURE EDUCATION: AGRIBUSINESS

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As the students in the classroom today are the farmers of the future, agriculture educators are required to prepare students to face a world of advancements in production agriculture. With higher inputs and expenses and lower margin of gains, it is increasingly important to educate future agriculturalists about the basics of cash flows and budgets. This research reviewed elements of the discussion of the need for education and agribusiness to work together to ensure the financial success of beginning and young farmers is reviewed. The discussion included an examination of the success of systems already in place that had combined lending with learning and the success this process had in loan repayment. This curriculum also included ways that a high school teacher Agriculture Educator could add agribusiness lessons that incorporate budgets, cash flows, and money-making decisions into existing curricula.

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Chapter One: Introduction

The Agriculture Industry in the United States needed to be prepared for changes that will take place in the world, in order to sustain and produce the food that will be required. Many reasons to be concerned had been identified: the aging farmer, the high costs of production, and the growing population of the world. The need for preparing a new generation of farmers was critical. “In 2007, more than 60 percent of established farmers were over age 55 (Ahearn, 2009).

With an aging population that produced the food of the world agriculture instructors had to prepare the farmers of the future to take the reins. The agriculture industry needed to be prepared to assist with the transition of these farms to a younger generation in order to meet the world food demands of the future. Agriculture Educators had to recognize that the students who were in the classroom today would be the beginning and young farmers of tomorrow, and they needed to be prepared to make good financial choices as they looked to begin their careers as farmers. This circumstance was critically important because the population of the world was set to reach 9.4 billion by 2050, a 42 % increase. Predictions were that this would require agriculturalists to produce as much food in the next 50 years as was produced in the last 10,000 (Monsanto, 2008).

Beginning and young farmers were not taking advantage of financing options to begin farming on their own because they did not 1) understand their financing options, 2) know how to fill out the paperwork, or 3) have any idea what went into a cash flow statement. All of the numbers and financial concepts required for business plans and loan documents were so foreign to beginning and young farmers that they easily became overwhelmed. Young farmers had found it easier for themselves to remain a hired hand doing what they loved, compared to doing the same work for themselves.

In response to the need to help young farmers develop the necessary skills the United States Department of Agriculture (USDA) developed a loan program with a 3.5% interest rate that was designed for beginning and young farmers. Such loans were processed through its Farm Services Agency (FSA) offices (2009). Unfortunately, very few who were eligible to get these loans were taking advantage of the opportunity.

Statement of the Problem

The curriculum was designed to increase a basic understanding of Agribusiness terminology directed at addressing problems within current Agriculture Education Curriculums. Why it was critically important that agriculture educators implement agribusiness curriculum and educate beginning and young farmers about finance options and cash flow statements? What topics concerning agribusiness operations and financing should be included? What information would be useful to beginning and young farmers to help them take advantage of the loan programs available to them? Finally, which Wisconsin Agriculture State Standards would need to be addressed by the curriculum for an Agribusiness course?

Definition of Terms

Farmer: A person who cultivates land or crops or raises animals (as livestock and fish)

(Merriam-Webster, 2010).

Financing: The act or process or an instance of raising or providing funds (Merriam-Webster, 2010)

Cash Flow: A measure of an organization's liquidity that usually consists of net income after taxes plus noncash charges against income (Merriam-Webster, 2010).

Beginning Farmer: An individual or entity who (1) has not operated a farm for more than 10 years; (2) meets the loan eligibility requirements of the program to which he/she is

applying; (3) substantially participates in the operation; and (4) for farm ownership purposes, does not own a farm greater than 30% of the median size farm in the county (United States Department of Agriculture, 2009).

Delimitations of Research

This research was conducted through the Karrmann Library and the University of Wisconsin-Platteville and through interviews with Agribusiness Loan officers and beginning and young farmers over the period of 45 days. Primary searches were conducted via Internet through EBSCO Host with Eric and Academic Search Elite. Key search topics were “beginning and young farmer,” “farm cash flow,” “agribusiness curriculum,” and “farm financing.” The textbooks entitled *Agribusiness Fundamentals & Applications: Second Edition* by Richetts and Richetts (published by Delmar Cengage Learning, 2009) and *Agribusiness Decisions and Dollars: Second Edition* by Jack Elliot (published by Delmar Cengage Learning, 2009) were used as resources for information about Agribusiness.

Method of Approach

A review of literature about beginning and young farmers, agribusiness financing and loan programs available was done to gain information on programs that were being implemented around the country at the time of this study. Interviews were conducted with young people interested in farming to gain an understanding of why they were not currently going into business on their own, as well as with agribusiness lenders to get an understanding of what they saw from a lending perspective. Information, activities and computer aids were compiled using the information from the literature review, interviews, and resources such as textbooks, as well as educational websites. The final product was a compilation of outcomes and activities as well

as teaching and learning aids that could be used to incorporate Agribusiness into Agriculture Curriculum.

Chapter Two: Review of Literature

Lisa Schmoetzer, a young farmer, said, “If I had had a business plan, goals and a budget when I started out, that would have been helpful” (Fortune, 2010).

In order for the farmers of the future to walk into a bank and get a loan they needed to have a basic understanding of a business plan, cash-flow, and budgets. These three simple concepts were sometimes left out of the agriculture curriculum. “Not nearly enough people look at farming as a business requiring a business plan, management techniques and financial goals” said Linda McClanahan, Mercer County Agriculture Extension Agent (Fortune, 2010).

Research indicated that the lending programs designed for beginning and young farmers that incorporated an education component with the lending process were finding a higher success rate with the loan pay back. *FarmStart* LLP was a credit and training program designed to help new farmers and farm related businesses get started; a program launched by Farm Credit East and Co Bank. “The *FarmStart* program currently has 52 participants; only one borrower is currently delinquent. Since the program started three years ago, only one loan has shown a loss.” (Thompson, 2010) Most lending programs did have requirements to enroll, starting with a strong business plan that showed that the loan could be repaid.

The *FarmStart* program had an additional education and mentoring component that added to lending success, which gave good argument to the importance of education and mentoring and finance and how the two are very compatible and even necessary in the classroom. Participants in the program agreed to receive help and supervision from a *FarmStart* representative, underwent regular reviews of the business’s books, and attended educational seminars on financial management. Participants were also provided software to assist with their bookkeeping. *FarmStart* representatives helped borrowers develop a monthly cash-flow budget

and talked about how things were going and did reviews to keep them on track. According to Ben Fisk a participant in the program, “It wasn’t just borrowing money – it was help in learning how to budget, you learn different ways to look at your operation and to use money.” Another participant Teresa Lawton found the training just as helpful as the credit, saying of her representative, “She makes it easy to see the business’s strengths and weaknesses”. (Thompson, 2010)

Brad Guse of Wisconsin’s M&I Marshal and Ilsley Bank, found that beginning and young farmers had a real need for networking and education. Guse said "many, when confronted with a major decision, lack a friendly ear they can bounce things off of, or lean on when things get challenging." Guse began offering seminars for his borrowers for topics that they requested such as profitability, accounting, and insurance. The sessions that were intended to last an hour with some time to network turned into three-hour sessions, serving as many as 24 farmers from a variety of backgrounds with a variety of questions. Guse then added a newsletter and has helped three fellow M&I lenders set up similar series for their lenders (Cocheo, 2007).

Because the USDA had an understanding of the need for the educational component, which would lead to beginning and young farmer loan repayment, the USDA gave the University of Kentucky, as well as 29 other universities, a grant for \$748,000 to establish a comprehensive farm management program directed towards beginning and young farmers. The program incorporated an educational component that would help beginning farmers make a successful start (Fortune, 2010).

In the first year, topics such as crop selection and drawing up a business plan, as well as setting goals and budgeting were discussed.

In the second year, a mentoring program was added, pairing farmers with similar operations and interests. One young 17-year-old farmer, Nathan Ellis, said he knew “a bunch of guys my age who want to go into farming who could really profit from this.” He felt that because he and his uncle participated in the program and learned about crop selection that would return a profit for their operation (Fortune, 2010). It is 17-year-olds like Ellis that were the reason that this curriculum needed to be compiled for Agriculture Educators to use in their classrooms. The curriculum developed for this educational project was compiled to be used as a standalone course, if need be; but could also be broken up into smaller pieces to be used in a variety of courses from Horticulture and Agronomy to Production Animal Science. The curriculum could also be used to give basic understanding to the proficiency application, state award applications and record keeping processed as part of the FFA (formerly Future Farmers of America) and Supervised Agriculture Experience (SAE) components of Agriculture Education.

Teachers usually think of curriculum as lesson plans, activities, objectives and assessments. Many time curriculum has also been confined to what is taught inside the classroom. "Curriculum, to me, includes all student experience inside and outside the classroom, which provide meaningful learning toward a desired result." wrote Larry Case, past National FFA Organization Advisor. When a curriculum is developed it must fit the local program and the people in the community; teachers, students, administration and business persons. The technical content of curriculum needed to be constant updated to stay current. (Case, 2007)

"What are the needs we seek to meet? We must still strive to tailor what we teach to the "real" needs of the students enrolling." wrote L. H. Newcomb, an Associate Dean at the Ohio State University. Curriculum has been driven by the need of the community, and research would lead to believe the curriculum needed to be developed due to the need of the young farmer

community. Curriculum must be developed around relevant, concrete concepts and provide application. (Newcomb, 2007)

Chapter Three: Conclusions and Implications

This researcher recommends that Agriculture Educators include a basic Agribusiness curriculum in Agriculture classes so that when young producers want to make their dream a reality they have an understanding of cash-flows and balance sheets. Students that have an understanding of a business plan will be much more likely to walk into a loan office and have the numbers that lenders need to qualify and be approved for a loan. These students will be able to show they understand what it takes to make money farming. This researcher also recommends Agribusiness lenders also see the impact that education is having in the success of beginning and young farmers and their success of loan repayments. Lenders would also benefit by having an educational component or mentoring component to their lending programs for beginning and young farmers that provides good business guidance, and social networking.

The technical content of curriculum has evolved through the history of agriculture education to meet the needs of the student and stay current with the industry. The implemented curricula served to meet this need in the classroom. "We must "design" learning which is concrete and relevant and provides true application of theory and concepts in a variety of settings." wrote L. H. Newcomb. (2007) The Agribusiness curriculum provided various activities, lessons and resources that allows for application and true "Learning by Doing". It should also be noted that the curriculum should be modified to meet the needs of the community or classroom it is used in.

The curriculum that was developed (See Appendix A) was outlined using textbooks entitled *Agribusiness Fundamentals & Applications: Second Edition* by Richetts and Richetts (published by Delmar Cengage Learning, 2009) and *Agribusiness Decisions and Dollars: Second Edition* by Jack Elliot (published by Delmar Cengage Learning, 2009) because they had a high

school reading level of the target audience and were current publications. The outline also addressed Wisconsin State Standards that are met related to agribusiness.

Many topics that the research deemed relevant were included in the curriculum or example: inventory, balance sheets, cash flows, budgets and business plans in Unit II: Running and Agribusiness and Unit III: Financing the Agribusiness. Unit I: Introduction to Agribusiness, was designed to give the learner a basic understanding of the agriculture industry. It allowed for career exploration and learning of the various types of agribusinesses. Unit IV refers to Marketing and Management and discusses topics of creating demand and markets. Record keeping and SAEs (Supervised Agricultural Experiences) make up Unit V, which was left until the end because many Agriculture Education Programs do not have SAEs. Each unit contained power points, lesson plans and activities. There were also a variety of digital worksheets that demonstrate how a cash flow sheet works.

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FACT SHEET, Loans for Beginning Farmers and Ranchers

APPENDIX A

Suggested Curriculum Topic Outline

- I. Introduction to Agribusiness
 - a. Overview of Agriculture Industry
 - i. Career Exploration

Wisconsin State Standard F.12.4- Research a career in agricultural business marketing and management
Wisconsin State Standard F.12.1- Describe how the production, distribution, and marketing of food and fiber is part of a complex economic system.
 - b. Types of Agribusinesses
 - i. Proprietorships
 - ii. Partnerships
 - iii. Corporations
 - iv. Cooperatives
 - v. LLCs
 - vi. Franchises

- II. Running an Agribusiness

Wisconsin State Standard F.12.3- Demonstrate basic business and management skills

 - a. Inventory
 - b. Balance Sheet
 - c. Statement of Cash Flow
 - d. Statement of Owner Equity

- III. Financing the Agribusiness
 - a. Planning and preparing a budget
 - b. Preparing business goals and a plan
 - c. Making business decisions

- IV. Marketing and Management

Wisconsin State Standard F.12.2- Describe the process of marketing food, fiber and natural resources.

- V. Record Keeping and SAEs

Suggested Textbooks

Agribusiness Fundamentals & Applications; Second Edition
2009, Ricketts and Ricketts, Delmar Cengage Learning

Agribusiness Decisions and Dollars; Second Edition
2009, Jack Elliot, Delmar Cengage Learning

Other Suggested Resources

AgEdNet.com, Agribusiness Library
Contains Lessons, Power Points and Worksheets

CAERT Agribusiness Lesson Library

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