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May 12, 2011

VIA HAND DELIVERY

Mr. Dan Davidson, Executive Officer
State Land Use Commission
235 S. Beretania Street, Room 406
Honolulu, Hawaii 96813

Re: Docket No. SP87-364/Kahili Adventist School: 2011 Status Report

Dear Mr. Davidson:

This letter supplements the annual status report dated April 27, 2011 regarding Kahili Adventist School's ("School") compliance with Special Permit No. 87-364, as required by the Decision and Order Approving Amendment to Special Use Permit, filed April 26, 2010 by the Land Use Commission.

The School supplements its response to Condition 7:

Condition 7: Applicant shall submit a copy of the education curriculum each Fall to the Planning Department in order to verify the provision of an agricultural work study program as represented.

Attached is a copy of the School's agricultural work study curriculum for the 2010-2011 school year, which has been submitted to the Kauai County Planning Department.

Please let us know if you need any additional information. Thank you for your consideration.

Sincerely,

Mark G. Valencia
Michael R. Marsh
Mark G. Valencia

Enclosure

cc: Mr. Gary Johnson (Hawaii Conference
of Seventh-day Adventists)
Kahili Adventist School

LAND USE COMMISSION
STATE OF HAWAII
2011 MAY 12 P 3:56

Agriculture Curriculum

Unit 1: The Agriculture Education Program

Lesson 1: Agricultural Education Concepts

STUDENT OBJECTIVES

1. Define agricultural education.
2. Discuss the historical development of agricultural education.
3. Identify the three main parts of an agricultural education program.

SUGGESTED REFERENCES

- Agricultural Sciences (Video)*. St. Paul, MN: Hobar Publications.
 Herren, Ray V. *Exploring Agriscience*. Albany, NY: Delmar Publishers, Inc.
- Phipps, Lloyd J. and Edward W. Osborne. *Handbook on Agricultural Education in Public Schools* (5th ed.). Danville, IL: Interstate Printers and Publishers, Inc.
- Lee, Jasper S. *Agriscience Discovery*. Danville, IL: Interstate Publishers, Inc.
- Morgan, Elizabeth M. *Agriscience Explorations*. Upper Saddle River, NJ: Prentice Hall Interstate.

EQUIPMENT, SUPPLIES, MATERIALS

- Slide or video presentation of the Agriscience program slide projector
 Television/VCR
 Bulletin board materials
 Overhead projector
 Transparency master 8Ag 0.1.1

Teaching Procedure

Introduction and Mental Set

Agricultural education, more commonly called agriscience at the K-8 school level, is a program designed to educate individuals about agriculture and its related fields. Importance is placed on the science involved in producing food and fiber, as well as, the science involved in the processing, marketing and technology of agricultural products.

1. Tour of the agriscience department.
2. Slide or video presentation of the program.
3. Bulletin board display.

LAND USE COMMISSION
STATE OF HAWAII

2011 MAY 12 P 3:56

Discussion

1. **Question:** *What is agricultural education at the middle school level?*

Answer: Agricultural education is more commonly known as agriscience at the middle school level. Courses are designed to provide students with basic science concepts through applied learning in the food and fiber system of agriculture.

2. **Question:** *How did agricultural education officially begin?*

Answer: Agricultural education officially became a part of the public school system in 1917 with the passage of the Smith-Hughes Act. This act provided money to public schools for financing agricultural education programs.

3. **Question:** *What key components make up a good agriscience education program?*

Answer: Display and discuss transparency 8Ag O.1.1

4. **Question:** *Agriscience will be discussed a great deal this year. How does agriculture and science relate?*

Answer: Agriculture is the application of the earth, physical, and life sciences.

- X **Earth science:** study of soil for nutrient composition
- X **Physical science:** study of simple machines, energy, and matter
- X **Life sciences:** study of plants, animals, and the environment

Other Activities

1. Show video *Agricultural Sciences*.

Summary

Conclusion

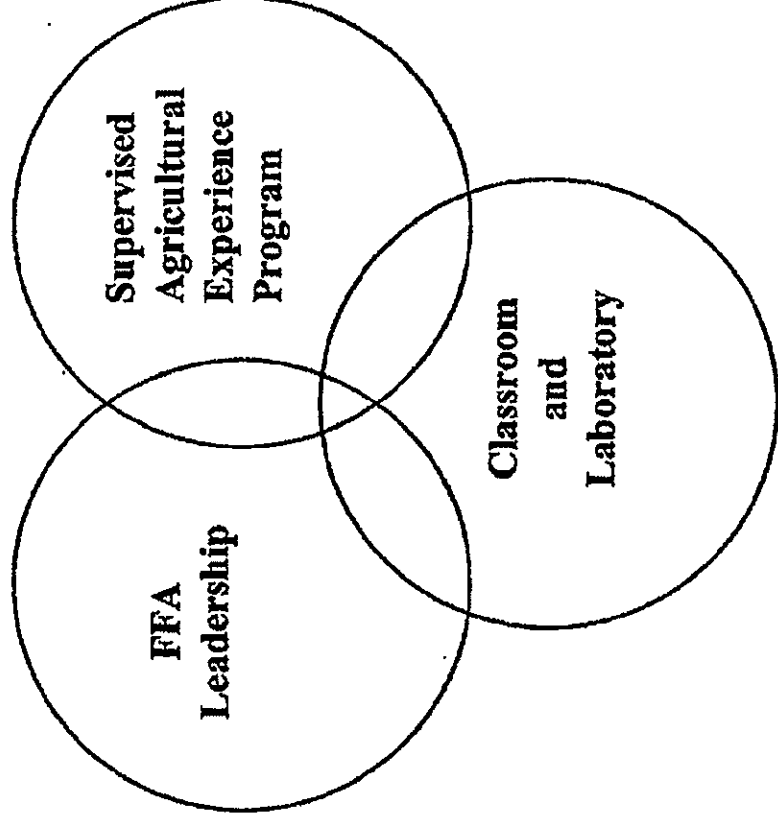
Agricultural education is about more than just being better farmers and FFA members. Its goal is to educate Americans about agriculture.

Evaluation

Written quiz

8AgO.1.1

Components of a Quality Agriscience Program



8Ag O.1.1

Teacher Notes:

FFA Leadership- FFA is a student organization and provides hands on opportunities to apply what is learned in the classroom and develop leadership skills. It is an organization for students who are studying only one of the many agricultural areas.

Classroom/Lab

The classroom/lab provides instruction which is similar to many of your other classes.

SAE

The Supervised Agricultural Experience Program gives students a chance to explore in-depth those areas of agriculture in which you're interested. Your SAE can be anything from completing an agriscience research project to working at a local agribusiness to starting your own business.

Agriculture Curriculum

Unit 2 Introduction to Agriculture

Lesson 1: The History of Agriculture

OBJECTIVES

1. Describe the importance of agriculture.
2. Describe American agriculture.
3. Explain King Cotton.
4. Explain the changes in the cattle industry.
5. Discuss inventions in the crop industry.
6. Discuss the Land Grant Act.
7. Explain how experiment stations were established.

REFERENCES

Herren, Ray V. *Exploring Agriscience*. Albany, NY: Delmar Publishers, Inc.
 Lee, Jasper S. *Agriscience Discovery*. Danville, IL: Interstate Publishers Inc.

TEACHING PROCEDURE

Introduction and Mental Set

Agriculture is almost as old as the human race. Before any civilization could be established, a strong agricultural base had to be built. People had to be fed before any roads or buildings could be designed. Have students divide into groups and ask them to imagine that each group is an early American civilization. Ask them to come up with their own methods for providing food for the community. This activity should illustrate to them that agriculture is the basis for all civilization.

Suggestion: Before class make a transparency with just the questions to be answered on it.

Discussion

1. *Question: Why and how did agriculture begin its development?*

Answer: Before agriculture began, everyone spent his or her time hunting and gathering food. This was a full time job and little time could be spent doing anything else. People had to travel all the time because the food supply in a particular area would often be depleted. These people soon found that they could grow their own food and settle in one place. They began to search for plant seed and learned by trial and error the best way to grow crops.

2. **Question:** *Describe American agriculture.*

Answer: American agriculture is the most successful agricultural system in the world. No other country even comes close to matching the agricultural production of this country. Our rich soil and good climate make this land an ideal place for agricultural production.

3. **Question:** *What was King Cotton?*

Answer: Cotton production had a huge impact on agriculture and the wealth of the nation. Cotton was introduced into the coastal areas of Georgia and South Carolina in very early colonial days. The fiber from the plant was used to make clothes. It was easy to spin a weave, easy to dye, and comfortable to wear. Cotton production soon spread to Alabama, Tennessee, and Mississippi. The entire southern portion of the United States was settled primarily because of the cotton industry. Cotton was so important that it became known as King Cotton.

4. **Question:** *Why was the invention of the cotton gin so important?*

Answer: The cotton gin, invented by Eli Whitney in 1790, could remove the seeds from the cotton faster than by hand. This was especially important for upland cotton because the seeds from this type of cotton were extremely hard to remove. Cotton could be produced much more efficiently and profitably.

4. **Question:** *How has the cattle industry changed?*

Answer: The cattle industry in the United States had a slow beginning. Raising cattle was costly and beef was expensive. Cattle raised close to population centers had to be fed expensive grain or had to be fed on pastures that could be put to better use growing crops. In the West, cattle could be grazed on land not suitable for growing crops, but suitable for feeding cattle. However, western cattle producers were faced with the problem of getting cattle to the consumers in the population centers, which were far away. Producers began to ship the cattle by railroad, but this was a problem also because railroads didn't run through every town. Towns like Sedalia, Missouri and Abilene, Kansas were established as "railheads" where cattle were brought for shipment. The only way for most producers to get their cattle to the railheads was to drive them. For about 20 years, cattle drives were the means of getting cattle to market. Around the turn of the twentieth century, an extensive railroad system was completed. But the problem wasn't completely solved though. The cattle that were shipped by railroad lost weight from the stress of the trip and were not as profitable at market. Producers reasoned that they could make more profit if the cattle were slaughtered close to where they were raised and the meat shipped. Although this was a good idea, it was impossible because the meat would not reach the market before spoiling. Producers attempted to cool the meat by using ice that had been cut from frozen lakes in the winter and stored in icehouses. This attempt was unsuccessful though, because the ice melted and did not

keep the meat cool enough. Then, during the 1880s, mechanical refrigeration was developed and a few years later the refrigerated boxcar was invented. This allowed meat to be transported to anywhere in the country anytime during the year. These new inventions lowered the price of meat and Americans began to add meat to their diets at a relatively low cost.

5. Question: How has crop production changed?

Answer:

- John Deere invented a steel plow in the 1830s. This plow was suitable for turning the heavy fertile soil of the Midwest. This plow had a cutting edge and share made of steel. The strong tempered steel allowed the plow to be thinner and lighter. Wheels were later added to make the plow easier to pull by animals. The land of the Midwest could now be easily plowed and farmed.
 - In 1831, Cyrus McCormick invented a machine that was used for reaping wheat. The horse-drawn invention cut the wheat, replacing the old method of cutting the wheat by hand. Threshing machines were soon developed that separated the grain from the rest of the plant. After the invention of the internal combustion engine, the process of cutting and threshing the wheat was combined into one operation with a machine known as the combine. Now work that took days using human and animal labor could be done in a matter of minutes.
- 6. Question: What was the Land Grant Act?**
- Answer:** People began to realize that there was a need for institutions of higher learning where students could study subjects such as agriculture that had a practical application. In the late 1850s, a senator from Vermont, Justin Morrill, introduced a bill to provide public land and funds to establish universities to teach practical methods of producing food and fiber. The bill passed in 1862 and became known as the Land Grant Act or the Morrill Act. The act provided each state with public land to build a college that would teach agriculture and mechanics.

7. Question: How were experiment stations developed?

Answer: After students enrolled and classes began at the Land Grant Colleges, people began to realize that there was very little knowledge about agriculture. Most of the ideas about agricultural production had no real scientific basis. In 1872, Congress passed the Hatch Act, which authorized the establishment of experiment stations in states with land grant colleges. The purpose of the experiment stations was to create new knowledge through a systematic process of scientific investigation. At these experiment stations, scientific investigations about how plant and animals grow were conducted. Most of the progress of American agriculture came about as a result of the research at Land Grant universities and their experimental stations.

Other Activities

1. Have students interview elderly people that have lived in your community for many years. Ask them about the changes in agriculture that your community has seen.
2. Contact the Cooperative Extension Agent in your area. Discuss some of the latest agricultural research being done or that is recently completed at the Land Grant university in your state.
3. Have students bring in pictures/magazines of old agricultural equipment

SUMMARY

There have been many changes in the history of agriculture. Some of the changes have occurred slowly, while others have been more rapidly. All of the changes that have occurred in agriculture have allowed us to produce agricultural products more efficiently and profitably.

Evaluation
Written quiz

Agriculture Curriculum

Unit 5: Safety

Lesson 1: Introduction to Safety

Student Objectives

1. Identify basic laboratory safety practices.
2. Practice basic laboratory safety.
3. Complete a safety test with a score of 100 %.

Reference

Burke, Stanley R. and T. J. Wakeman. *Modern Agricultural Mechanics*. 2nd ed. Danville, IL: Interstate Publishers, Inc.
Hand Tool Safety (Video). Available from Hobar Publications. St. Paul, MN.

Introduction to Woodshop / Carpentry Safety (Video). Available from Hobar Publications. St. Paul, MN.
 Lee, Jasper S.; Patrick, Amanda R.; Vaughn, Rosco; Vaughn-Randel, Shelly; and Murphy, Erin. *AgriScience Discovery*. Danville, IL: Interstate Publishers, Inc.
 Morgan, Elizabeth M.; Lee, Jasper S.; and Wilson, Elizabeth. *AgriScience Explorations*. Upper Saddle River, NJ: Prentice Hall Interstate.

Equipment, Supplies, Materials

Video tapes
 TV/VCR
 Overhead projector
 Transparency 7Ag 6.1.1.

Teaching Procedure

Introduction and Mental Set

Most accidents occur as a result of carelessness. When working in the laboratory setting students must pay attention to their work to avoid injury. This lesson discusses basic safety practices necessary to work with various materials.

Discussion

1.Question: *Why are safety procedures developed?*

Answer: Safety procedures are developed to provide guidelines for safe work habits. When procedures are not followed, serious injury can occur. The following rules will help prevent accidents: Display and discuss transparency 7Ag 6.1.1.

- Wear safety glasses; it is a state law
- Wear protective clothing
- Keep the laboratory clean
- Avoid horseplay at all times
- Do not throw objects
- Store tools properly
- Do not use tools without permission
- Use the correct tools for the job
- Report broken tools to the instructor
- Pay attention to your work at all times
- Leave guards and shields in place
- Grip tools firmly
- Keep cutting tools sharp
- Keep tools clean
- Cut away from the body

2. **Question:** *What type of safety procedures should be followed when working with metal?*

Answer: In addition to the general safety rules discussed earlier, the following rules apply:

- Work in a well ventilated area
- Never touch hot metal
- Wear gloves when handling metal with sharp edges
- Wear special eye protection when welding
- Wear a leather apron and flame retardant clothing

This list only reflects general metal working safety procedures. Other procedures will be determined by the type of work being done.

3. **Question:** *What are some safety procedures specific to woodworking?*

Answer:

- Properly secure all work
- Use both hands when working with power tools
- Wear a face shield
- Handle sharp and pointed tools with caution
- Use files and rasps equipped with handles

Other Activities

Conduct a safety scavenger hunt. Stage safe and unsafe practices; let students identify these. **Do Not** let students demonstrate any tool or equipment in an unsafe manner.

Teacher's Note: Review the types of sentences with your students before beginning the next activity. Then go around the room and ask students to come up with a sentence and have the others identify the type of sentence.

ACADEMIC CONNECTIONS

Language Arts

Connections in Agriculture Education

Name: _____ Date: _____

There are four different types of sentences: imperative, interrogative, declarative, and exclamatory. Using what you learned in Language Arts, label the sentences below as imperative, interrogative, declarative, and exclamatory. Then write sentences of your own.

Label the sentences by their type.

1. Why is safety so important? _____