

OAKLAND CUSD #5

**INTRO TO AG**  
**APRIL 27-MAY 1, 2020**

JEFF COON

# Week of April 27-May 2, 2020

All of these assignments are on google classroom. You must pick one of the 3 listed and complete by next Monday, May 4th for credit. If you would like to use google docs to complete the work that would be most efficient, just remember to start a new copy with your own work please. Paper copies can be returned to the school.

<b>Class</b>	<b>Choice 1</b>	<b>Choice 2</b>	<b>Choice 3</b>
Ag Science	CDE	Animal Reproduction #2	FFA Journal
Ag Business Mang	Advertising	Borrowing Money	car Insurance
BSAA	Animal Health	Respiration	Domestic Animals
Landscape Design	Managing grasses	Landscape areas	Landscape Power tools
Intro To Ag	CDE	Consumer Trends	Maintaining your SAE
Ag Mech.	Land measurement	coolants	Remote sensing

Checking Your Knowledge:

1. During the Livestock Evaluation CDE, for what do students evaluate various species of livestock?

2. Explain the difference between the Farm Business Management CDE and the Marketing Plan CDE.

3. What is the purpose of Career Development Events?

4. How can the Creed Speaking, Extemporaneous Public Speaking, and Prepared Public Speaking CDEs help you in your future?

5. Describe in detail the Agricultural Communications CDE

# FFA Career Development Events

**C**AREER...everyone will eventually have one. What will yours be? What skills do you have that make you suitable for that career? How do you know that it is the career for you? As a high school student, you have so many careers to choose from, and you have very little time to explore what your future career may be. By participating in Career Development Events through the National FFA Organization, you have the opportunity to explore career opportunities while developing your skill set.



## Objective:



Identify and describe the FFA Career Development Events.

## Key Terms:



### Career Development Events

- Agricultural Communications
- Agricultural Issues Forum
- Agricultural Sales
- Agricultural Technology & Mechanical Systems
- Agronomy
- Creed Speaking
- Dairy Cattle Evaluation & Management
- Dairy Cattle Handlers Activity
- Environmental & Natural Resources
- Extemporaneous Public Speaking
- Farm Business Management
- Floriculture
- Food Science & Technology
- Forestry
- Horse Evaluation
- Job Interview
- Livestock Evaluation
- Marketing Plan
- Meat Evaluation & Technology
- Milk Quality & Products
- Nursery/Landscape
- Parliamentary Procedure
- Poultry Evaluation
- Prepared Public Speaking
- Veterinary Science

## The Value of Career Development Events

The mission of the National FFA Organization explains that “FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education.” To fulfill the mission of FFA, Career Development Events (CDEs) were created. These events provide you, as an FFA mem-

ber, with opportunities to practice and develop skills in given areas of the agriculture industry. In many situations, these skills can't be developed in any other way except by actually working for an agricultural company. Career Development Events can be priceless if they help you obtain a job that fits your aspirations and abilities.

## **CAREER DEVELOPMENT EVENTS**

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**Career Development Events** are competitions for enhancing FFA members' career skills in a variety of areas, ranging from food science to mechanics. There are 24 CDEs and one activity at the national level. To compete in any CDE, you must be a high school (grades 9 through 12) student and a dues-paying FFA member in good standing. Your state FFA association may have additional qualifications that you must meet. Let's take a closer look at each Career Development Event.

### ***Agricultural Communications CDE***

**Agricultural Communications** is the CDE with the purpose of teaching FFA members skills that will benefit them when pursuing careers in agricultural communications. Without publicity through communications, such as advertising, broadcasting, and publications, agriculture would be even more foreign to the general public than it is already. The truth about agriculture must be heard so that the public isn't afraid of the technology being used.

The Agricultural Communications CDE has one team activity and three individual practicums. The team activity consists of creating a media plan to be prepared ahead of time and presented at the contest. During the contest, each individual will complete a written exam and one of the individual practicums. The practicums are creating a written communication, creating an electronic communication, and creating a visual design.

### ***Agricultural Issues Forum CDE***

The **Agricultural Issues Forum** is the CDE that investigates various agricultural issues affecting the public at local, state, and national levels. The purpose of this event is to bring awareness to issues affecting agriculture at the present time. Issues should be focused on the environment, agricultural technology, animals, agricultural careers, the economy and trade, agricultural policy, food safety, or biotechnology.

At the local level, a team will conduct research and develop a portfolio on a chosen topic before reaching the sectional competition. The topic will not change as the team advances through the levels of competition. During the contest, the team will be asked to present the issue and will then be subject to questioning from the judges. This contest applies teamwork, leadership, and communication skills for career success.

### ***Agricultural Sales CDE***

**Agricultural Sales** is the CDE meant to refine the skills associated with selling a product in various formats. The FFA member will have to identify potential customers, create a sales



## ON THE JOB...

### CAREER CONNECTION: Agricultural Sales Representative

An agricultural sales representative plays an important role in the agriculture industry. He or she markets agricultural products to potential customers in a given area. These products could be anything from the seed and fertilizer needed to grow a crop to the equipment needed to harvest it. An agricultural sales representative may also market technology, such as GPS devices and computer systems that allow farmers to keep accurate and reliable records of their work. Sales representatives are needed in every area of agriculture. Explore your options, and decide what area of agriculture suits you best.

pitch for the product, and sell the product to a customer. This is done by getting to know the customer and making the product a “must have” in the customer’s eyes. To succeed in the Agricultural Sales CDE, the member must attempt to close the deal with a purchase of the product.

### ***Agricultural Technology & Mechanical Systems CDE***

**Agricultural Technology & Mechanical Systems** is the CDE that showcases the skills and the implementation of practical knowledge in five systems of agricultural mechanics—agricultural power, welding, electrical wiring, carpentry, and surveying of land. Each of the five systems tests the skills of the FFA member through a written exam and hands-on practicum. The member demonstrates his or her skills in a simulated workforce situation. The CDE focuses on problem solving, working both individually and in a team setting.

### ***Agronomy CDE***

**Agronomy** is the CDE in which FFA members identify various crops, weeds, seeds, insects, diseases, and nutrient deficiencies. Members also evaluate a crops scenario and develop a management plan that includes all decisions from planning the field to determining how the crop will be marketed after harvest. The CDE focuses on using environmental stewardship and integrated pest management practices to better the crop.

### ***Creed Speaking CDE***

**Creed Speaking** is the CDE that evaluates a first-year FFA member’s ability to express the passion and meaning behind the FFA Creed. The member should recite the Creed with fluency, enunciation, and clarity, as well as answer questions concerning the meaning of the Creed.

## ***Dairy Cattle Evaluation & Management CDE***

**Dairy Cattle Evaluation & Management** is the CDE that provides the opportunity for FFA members to evaluate live dairy cattle based on the most current trends in the dairy industry. Students should focus on the ability of animals to produce milk and on their structure, body capacity, and udder quality. Heifers should be evaluated on their potential to be excellent milk producers and on their calving abilities. Current trends can be found on dairy breed registry websites. Students will also focus on herd production and analyze herd data.



FIGURE 1. FFA members evaluate the overall confirmation and milking ability of Holstein cows as part of the Dairy Cattle Evaluation & Management CDE.

## ***Dairy Cattle Handlers Activity***

The **Dairy Cattle Handlers Activity** is the CDE activity that recognizes the skill of handlers in effectively presenting animals in the Dairy Cattle Evaluation & Management CDE.

## ***Environmental & Natural Resources CDE***

**Environmental & Natural Resources** is the CDE that focuses on environmental issues occurring in the United States and how those issues can be corrected in a responsible way. During the contest, FFA members will work both as a team and individually. The team event consists of solving the provided scenario in the most environmentally responsible way while providing research and factual solutions. The team will create a written report as well as give a short oral presentation defending its solution. A short period of questioning will follow the oral presentation. Other areas of the event include writing a news article or other form of press release concerning the given topic and identifying 50 items of equipment, native species, or invasive/non-native species.

## ***Extemporaneous Public Speaking CDE***

**Extemporaneous Public Speaking** is the CDE designed to develop the ability of all FFA members to express themselves on a given subject without having prepared or rehearsed the content of a speech in advance. This gives FFA members an opportunity to formulate their remarks for presentation in a very limited time. Topics include most areas of agriculture, such as animal and plant science, horticulture, aquaculture, environmental science, agricultural business, and many more.

## **Farm Business Management CDE**

**Farm Business Management** is the CDE that simulates managing a farm or agricultural business in the most economical way possible. FFA members will work as a team for most of the contest to create the most profitable and economically feasible scenario for their business situation. To do this, they must use the business and economic principles taught in their agricultural business class, along with problem-solving skills. Each individual on the team will also complete a written exam over economic principles related to business management, record analysis, and risk management.

## **Floriculture CDE**

**Floriculture** is the CDE that puts FFA members in real-world situations that can be found in the floriculture industry. Participants will compete in a team activity, a written exam, identification of plant materials and equipment, and problem-solving scenarios. During the team activity, FFA members will work together to design decorations for an event; perform packing, shipping, and inventory procedures; or fill customer orders. The final aspect of the contest is for each member of the team to individually complete three practicums. These practicums consist of creating a floral arrangement, interviewing for a job in the floriculture industry, and conducting a sales pitch.

## **Food Science & Technology CDE**

**Food Science & Technology** is the CDE in which FFA members will evaluate food products for overall quality, safety, and marketing techniques. Activities include identifying similarities in shape, looks, and taste using the triangle test, as well as identifying various aromas commonly found in the food supply. As a team, members will create a product based on a given scenario. The team should focus on marketing the product and creating packaging for the food. Other practicums include identifying various food handling and safety violations, formulating a consumer complaint letter, and taking a written exam.

## **Forestry CDE**

**Forestry** is the CDE that introduces FFA members to the forestry industry and allows them to demonstrate their knowledge and skill in the industry. The contest consists of a written exam, tree identification, an issues interview, timber cruising, two practicums, and a team activity. During the issues interview, individuals will communicate to the judges their knowledge of the forestry industry and their opinions on national or regional forestry issues. The timber cruising activity is simply measuring 10 boards for board-foot volume, diameter breast height, and merchantable height. The individual practicums could be any of the following: forest management evaluation, equipment identification, map interpretation, use of a compass, chainsaw part identification, tree/forest disorders, forest products, or problem solving in forest business management.



CORN 4-27 FWHO #1



## FURTHER EXPLORATION...

### ONLINE CONNECTION: Horse Evaluation

Horse evaluation isn't something that most people do every day. Take some time to practice your skills! Use the following website to evaluate horses in three halter classes. This will give you an idea of what the Horse Evaluation CDE is really like.

[http://www.gaaged.org/Games/horse\\_judging.htm](http://www.gaaged.org/Games/horse_judging.htm)

### Horse Evaluation CDE

**Horse Evaluation** is the CDE in which FFA members evaluate horses based on breed characteristics, conformation and soundness, and overall performance. Identification and selection classes will be evaluated on an individual basis. Each FFA member will identify 10 breeds or colors/markings of horses, as well as 10 tack items. The selection classes will consist of four halter and four performance classes. As a team, FFA members will choose the correct feed, determine how to properly shoe a horse, and participate in a problem-solving scenario based on animal nutrition, management, anatomy, and marketing.

### Job Interview CDE

**Job Interview** is the CDE designed for FFA members to develop the skill set needed to seek employment. During this contest, each student will create a résumé and cover letter, participate in various interviews, and formulate a follow-up letter. He or she may also fill out an employment application as a part of the contest.

### Livestock Evaluation CDE

**Livestock Evaluation** is the CDE that provides students the opportunity to evaluate various species of livestock for breed characteristics and for meat and breeding quality. Students will face rings that include marketing scenarios and must make keep/cull decisions based on their scenario goals and acquired knowledge. They must be able to explain, with fluency and accuracy, why they placed a class a certain way.

### Marketing Plan CDE

**Marketing Plan** is the CDE that focuses on creating a plan to publicly market an agricultural product. The product is chosen by FFA each year.

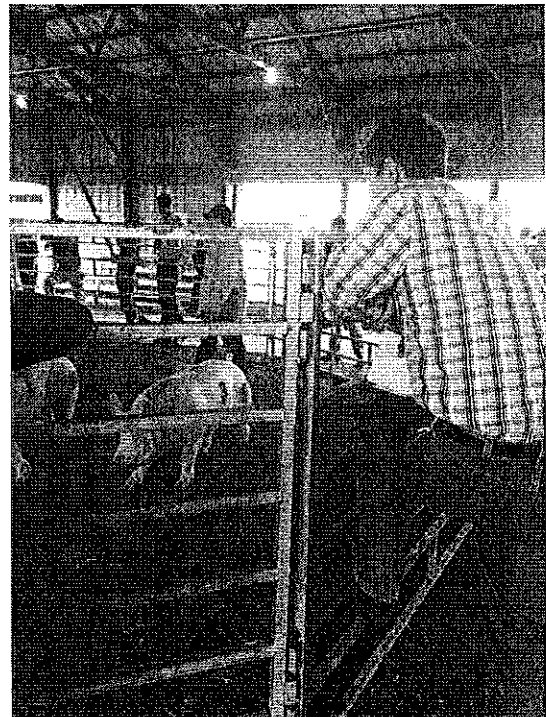


FIGURE 2. FFA members evaluate this swine class as a part of the Livestock Evaluation CDE. The animals are judged on breed characteristics as well as meat and breeding qualities.

Each team must submit a written marketing plan that includes a brief description, market analysis, business proposition, strategies-and-action plan, projected budget, and evaluation of the marketing plan and its goals. This plan will be judged prior to the live presentation. The live presentation should be viewed as a pitch to the judges for them to approve the proposed plan. Following the live presentation, each team member should participate in a question-and-answer session.

### ***Meat Evaluation & Technology CDE***

**Meat Evaluation & Technology** is the CDE that focuses on judging beef, pork, and lamb for meat quality and customer satisfaction. Areas of the contest include a written exam, retail meat cut identification, beef quality and yield grading, and the placing of classes. The contest may provide information sheets that detail various carcass qualities. If so, FFA members will have to determine the best placing for those carcasses or place them in a keep/cull format.

### ***Milk Quality & Products CDE***

**Milk Quality & Products** is the CDE that highlights the dairy industry, dairy products, and farm practices that contribute to the dairy supply in the United States. The event consists of a milk flavor identification and evaluation class, fat content identification, cheese identification, evaluation of California Mastitis Test results, a problem-solving scenario, a written exam, and team activity. The problem-solving activity will be focused on the quality and acceptability of milk, calculations of the value of milk and milk components, processing procedures, and cleaning and sanitizing operations.

### ***Nursery/Landscape CDE***

**Nursery/Landscape** is the CDE that focuses on the skills in all aspects of maintaining landscape plants, equipment, and products, as well as formulating landscape designs. The contest format consists of two team events; a written exam; identification of plants, pests, and disorders; identification of equipment and supplies; estimation of landscaping costs; customer assistance, both oral and written; and nursery propagation or potting. The team activities involve evaluating a landscape or nursery business issue and performing a variety of tasks that are common in the landscaping industry, such as the repair of equipment and the preparation of business reports.

### ***Parliamentary Procedure CDE***

**Parliamentary Procedure** is the CDE whose purpose is to teach FFA members the proper way to conduct a business meeting. This activity will benefit them for years to come, as parliamentary procedure is used in many organizations and settings. During this CDE, a mock meeting will be conducted. Members of the team will be given roles and specific motions to deal with. Floor members, chairpersons, and secretaries will be judged on an individual and team basis. *Robert's Rules of Order* will be followed during this contest.



## FURTHER EXPLORATION...

### ONLINE CONNECTION: Parliamentary Procedure Flashcards

Think you rock at parliamentary procedure? Test your knowledge using this set of online flashcards! Follow the link to practice.

<https://quizlet.com/4198495/flashcards>

### **Poultry Evaluation CDE**

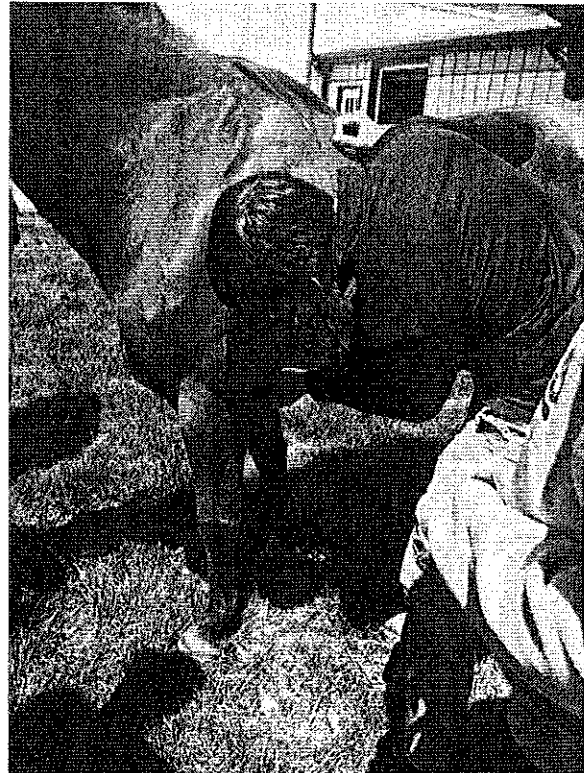
**Poultry Evaluation** is the CDE that tests FFA members' skills in the production, processing, and marketing of poultry, meat, and eggs. Activities during the contest include judging of carcasses, judging of live birds, identification of anatomy, judging of further-processed poultry products, interior and exterior egg grading, and a written exam. Processed products are judged on their similarities and customer preferences. Egg exteriors are graded on cleanliness, shell strength, and customer preferences. All these activities will be scored on an individual basis. The team portion of the contest involves answering questions on a problem scenario provided and determining the best solution for the scenario.

### **Prepared Public Speaking CDE**

**Prepared Public Speaking** is the CDE that teaches FFA members to be confident and knowledgeable whenever they are speaking. The contest consists of presenting a prepared speech and answering questions following the speech to demonstrate knowledge of the topic. The skills learned from this Career Development Event will benefit students in future job interviews, public forums, and whatever other public speaking situations they may participate in.

### **Veterinary Science CDE**

**Veterinary Science** is the CDE that allows students the opportunity to practice and demonstrate skills needed to perform veterinary medicine on both large and small animals. The contest consists of a written exam, scenario questions, identification of equipment, identification of breeds, identification of parasites, math applications, handling and restraining practicums, performance of a clinical procedure, and a team activity. During the team activity,



**FIGURE 3.** This FFA member is listening to a horse breathe and checking for any heart or lung problems. This is an example of a clinical practicum that could be given during the Veterinary Science CDE.

FFA members will be assigned roles on a veterinary team, and each will be expected to explain the process of professionally completing his or her role on the team. The scenario activity provides members with real-world issues in veterinary medicine and asks them to make educated and ethical suggestions to solve the problem. The CDE overall simulates for students what can be expected during a typical day on a veterinary team.

### Summary:



You will discover many different Career Development Events that you can participate in. Many of these are focused on skills that you can use for the rest of your life. The mission of the National FFA Organization explains that “FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education.” Career Development Events are an example of how FFA goes about achieving this mission.

### Checking Your Knowledge:



1. During the Livestock Evaluation CDE, for what do students evaluate various species of livestock?
2. Explain the difference between the Farm Business Management CDE and the Marketing Plan CDE.
3. What is the purpose of Career Development Events?
4. How can the Creed Speaking, Extemporaneous Public Speaking, and Prepared Public Speaking CDEs help you in your future?
5. Describe in detail the Agricultural Communications CDE.

### Expanding Your Knowledge:



Ask your agriculture teacher when the next CDE is in your area. Join the CDE team; participate in practices, and show off your skills during the contest. Participating in a CDE will teach you skills that you may use the rest of your life.

### Web Links:



#### National FFA Organization

<https://www.ffa.org/>

#### Career Development Events

<https://www.ffa.org/participate/cdes>

#### MyCaert.com Career Profiles

<http://www.mycart.com/career-profiles/>

Checking Your Knowledge:

1. How does supply-and-demand economics impact commodities?

2. How do consumer preferences influence commodities?

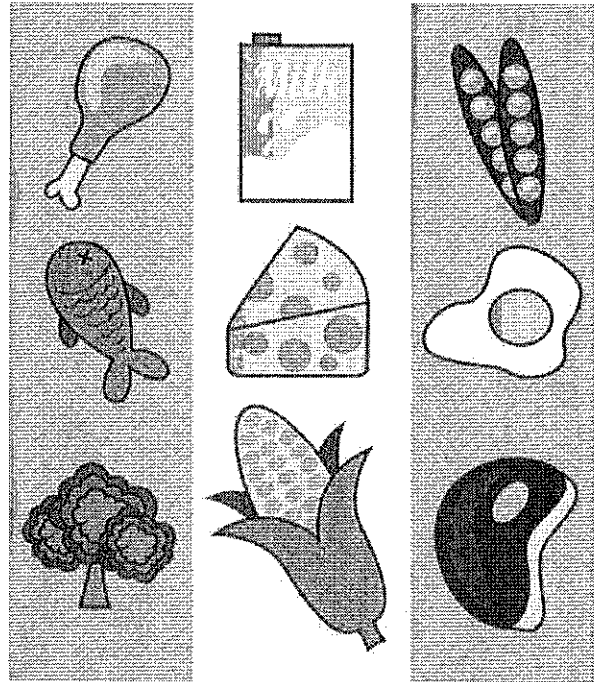
3. How do climate, customs, and standard of living influence consumer choices?

4. Today's consumers rely on manufacturers and retailers to do more of the food preparation for them. 4. What have been the trends with meat consumption?

5. What are the trends in organically grown foods and locally grown foods?

# Trends in Consumer Preference

**D**ID YOU KNOW that you have an impact on what food is sold? It is a small impact. However, the people who purchase food across the country collectively have a major impact. What people choose to buy has changed over time and will continue to change in the future. This unit looks at the effect consumer preferences have on agricultural commodity markets.



## Objective:



Examine how consumer preferences influence agricultural commodity markets.

## Key Terms:



carbon footprint

custom

supply

consumer

demand

consumer preference

standard of living

## Consumer Preferences for Agricultural Commodities

A **consumer** is a person who purchases products or services to fulfill certain needs. Consumers make choices about food, fiber, and shelter. They have strong likes or preferences and strong dislikes. **Consumer preference** is a consumer liking for one thing over another.

Agricultural commodities are influenced by economic supply and demand and consumer preferences. When consumers like something, it causes a demand. **Demand** is the desire for certain goods and services and the willingness to pay for those specific goods or services. Without consumer demand, there is no reason to produce a product. **Supply** is the total goods or services available for purchase.

Producers try to obtain the highest possible price for their goods or services, while consumers try to pay the lowest possible price. Usually, producers and consumers reach an equilibrium price, where supply equals demand.

Climate, customs, and standard of living influence consumer choices.

Climate influences the types of products that can be grown in an area. It also has a major influence on the desired type of clothing and shelter.

A **custom** is a long-established way of doing something. Adults often prefer to purchase the same types of products they grew up eating or using.

**Standard of living** is the level of wealth, comfort, material goods, and necessities available to a person. People with more money often choose different foods and types of housing than people with less money.



FIGURE 1. Consumer preferences influence agricultural commodities.

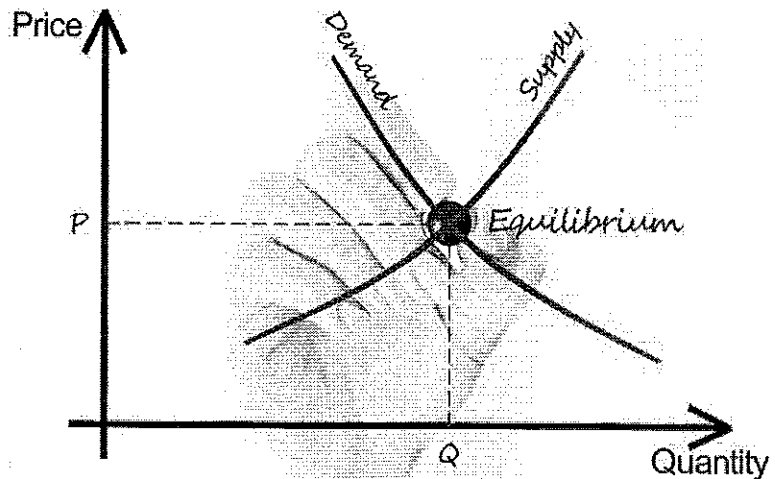


FIGURE 2. Supply-and-demand graph.

## FACTORS THAT IMPACT THE DEMAND FOR AGRICULTURAL COMMODITIES

Consumer preferences, consumer income levels, and the prices of the commodities are factors that impact agricultural commodities.

### Consumer Preferences

If there is high consumer preference for goods or services, the market will respond by producing more of those goods or services. For example, if consumers are willing to buy more red meat, producers will produce more of it. If consumer preference shifts toward poultry and fish, thus reducing the demand for red meat, producers will produce more poultry and fish and less red meat.

The number of buyers in the market impacts commodities. If there is an increase in the number of consumers in the world wanting beef in their diet, there will be an increase in demand for beef. Producers will likely respond by producing more beef.

### **Consumer Income Levels**

As more people in the world have higher incomes, they can afford more-expensive items. For instance, more people may demand beef, and more people may demand costlier cuts of beef, such as the filet.

### **The Prices of the Commodities**

If the price of a commodity grows too high for many people to afford, the demand will drop. With a drop in demand, producers may cut production.

If people can substitute a less expensive commodity for a more expensive one, both commodities will be impacted. For example, if people switch to consuming animal protein as chicken instead of consuming it as beef, the demand for chicken will increase, and the demand for beef will drop.

## **CONSUMER TRENDS**

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Some trends in consumer preferences include a rise in demand for meat, organically grown foods, and locally grown foods.

### **Demand for Meat**

In the United States, meat is consumed at more than three times the global average. World-wide meat production has tripled over the last four decades. Meat consumption in industrial countries is nearly double the quantity in developing countries.

Red meat represents the largest proportion of meat consumed in the United States (58 percent).

Saturated fat intake appears to be declining, but other components of red and processed meat continue to pose a health risk, particularly when consumed in large quantities. Consumer preference has been toward leaner meat.

Poultry consumption has increased and is expected to grow at 2 to 3 percent per year. This is due in part to the fact that poultry is the cheapest form of animal protein and it is considered healthier than red meat.

### **Organically Grown Foods**

Consumer demand for organically produced goods continues to grow. Organic food sales account for more than 4 percent of total U.S. food sales. Fresh fruits and vegetables have been the top-selling category of organically grown food. Most organic sales (93 percent) take place through conventional and natural food supermarkets and chains.





## FURTHER EXPLORATION...

### ONLINE CONNECTION: Food Habits

Learn more about consumer food preferences and eating habits in the United States. After visiting the following websites, give some thought as to how eating habits affect commodities. How would this information influence you if you were a producer or an executive in a major food company?

<http://www.ift.org/newsroom/news-releases/2014/january/15/13-interesting-facts-about-americas-eating-habits.aspx>

<https://www.dosomething.org/facts/11-facts-about-american-eating-habits>

<http://stateofobesity.org/facts-trends-in-americans-eating-habits/>

### Local Food Sales

Local food sales have been on the upswing. Most of the local food sales are vegetables, fruits, and nuts. Grocery shoppers have been increasingly seeking local food options for a number of reasons.

- ◆ Local food sales help local economies.
- ◆ Local food sales deliver a broader and better assortment of products.
- ◆ Local food sales provide higher-quality foods in terms of freshness, flavor, ripeness, and enhanced shelf life.
- ◆ Local food sales reduce the carbon footprint of the consumer. The **carbon footprint** is the amount of carbon dioxide and other carbon compounds produced because of the consumption of fossil fuels by a particular person or group. Increased levels of carbon dioxide and other carbon compounds in the atmosphere contribute to global warming.
- ◆ Local food sales increase natural or organic production.
- ◆ Local food sales help to preserve local farmland / open space by supporting productive use of land.



FIGURE 3. Local food sales have been on the upswing.

## Other Trends

Other trends have surfaced regarding consumer preferences.

Consumers want to know more about where their food is from and how it is produced.

Fewer people are learning about food from their parents. More people are learning about food through the Internet, cooking shows, blogs, etc.

America is becoming more a nation of eaters than of cooks. Today's consumers rely on manufacturers and retailers to do more of the food preparation for them.

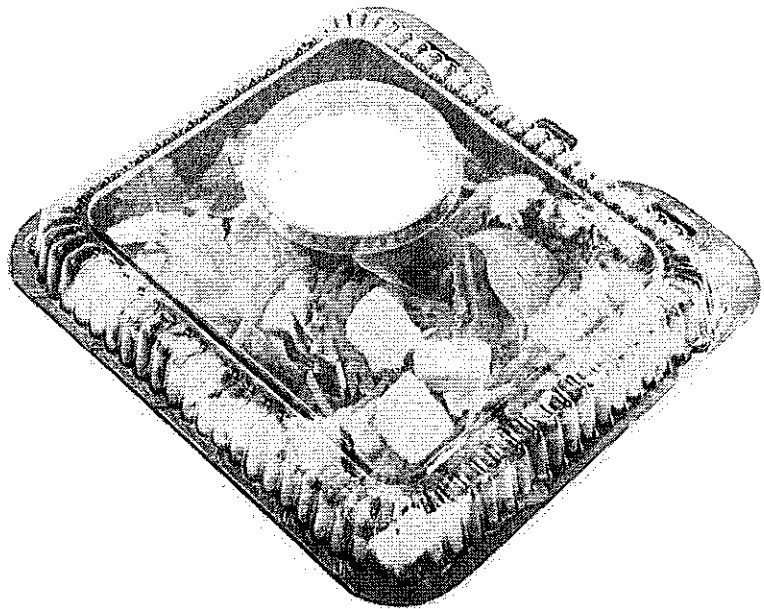


FIGURE 4. Today's consumers rely on manufacturers and retailers to do more of the food preparation for them.

## Summary:



Agricultural commodities are influenced by economic supply and demand and consumer preferences. Climate, customs, and standard of living play roles in determining consumer choices.

Consumer preferences, consumer income levels, and the price of the commodities are three factors that impact agricultural commodities. If there is high consumer preference for goods or services, the market will respond by producing more of those goods or services. As more people in the world have higher incomes, they can afford more-expensive items. If the price of a commodity grows too high for many people to afford, the demand will drop.

Some trends in consumer preferences include a rise in demand for meat, organically grown foods, and locally grown foods. In the United States, meat is consumed at more than three times the global average. Consumer demand for organically produced goods continues to grow. Local food sales have been on the upswing.

## Checking Your Knowledge:



1. How does supply-and-demand economics impact commodities?
2. How do consumer preferences influence commodities?
3. How do climate, customs, and standard of living influence consumer choices?

4. What have been the trends with meat consumption?
5. What are the trends in organically grown foods and locally grown foods?

### Expanding Your Knowledge:

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Visit a grocer, and ask how consumer preferences for meat, organically grown foods, and locally grown foods have affected the industry. Ask the grocer what changes can be expected in the future.

### Web Links:

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#### **Global Meat Production and Consumption Continue to Rise**

<http://www.worldwatch.org/global-meat-production-and-consumption-continue-rise-1>

#### **Organic Market Overview**

<http://www.ers.usda.gov/topics/natural-resources-environment/organic-agriculture/organic-market-overview.aspx>

#### **Agricultural Career Profiles**

<http://www.mycart.com/career-profiles>

#### **Locally Grown Food**

<http://livinggreen.ifas.ufl.edu/food/local.html>

#### **U.S. Per Capita Availability of Chicken Surpasses That of Beef**

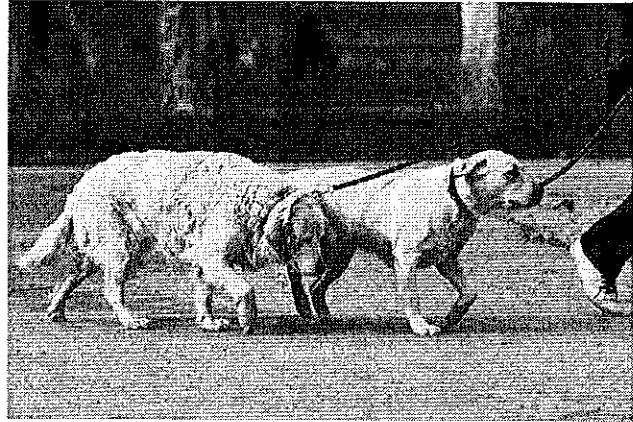
<http://www.ers.usda.gov/amber-waves/2012-september/us-consumption-of-chicken.aspx#.VS0pzPnF98E>

Checking Your Knowledge:

1. Describe how to calculate labor and management earnings.
  
  
  
  
  
  
  
  
  
  
2. When recording SAE experiences, what is important to include?
  
  
  
  
  
  
  
  
  
  
3. How does depreciation affect your labor and management earnings?
  
  
  
  
  
  
  
  
  
  
4. What is the difference between the straight-line and sum-the-digits depreciation methods?
  
  
  
  
  
  
  
  
  
  
5. Why is it important to record skills and safety activities in your SAE?

# Maintaining Your SAE Program

**Y**OU RUN a dog-walking business in town. You have seven customers who all pay in cash. Sometimes you record when they pay. However, when you are at your busiest, you sometimes forget. When it came time to pay your advertising bill, you did not have enough money to cover the whole expense. How could this situation have been avoided? Are you truly making a profit walking dogs? It is important to keep accurate and up-to-date records so your business is successful.



## Objective:



Identify important skills and financial calculations to successfully manage SAE records.

## Key Terms:



depreciation  
expense  
income  
inventory

labor and management  
earnings  
SAE experiences  
safety activities  
salvage value

skill  
straight-line method  
sum-the-digits method  
useful life

## Understanding How to Maintain an SAE Program

When you think of record-keeping skills, you may first think of tracking income and expenses, but much more is involved. SAE programs are about record keeping to track growth—in responsibilities, skills, and finances. Some SAE programs have no pay, so tracking growth through responsibilities and skills is essential.

## LABOR AND MANAGEMENT EARNINGS

**Labor and management earnings** are net profit or loss taking into consideration the inventory change for the year. Essentially, the figure is closely related to the profit or loss from a business enterprise. The calculation to determine labor and management earnings is: Total Income – Total Expenses + Total Inventory Change = Labor & Management Earnings.

**Income** is the money coming into the business. In contrast, an **expense** is any money leaving the business. **Inventory** is the products or items to be sold.

To determine total income, add total gross earnings, operating receipts, and capital items sold. To determine total expenses, add total show expenses, operating expenses, and capital items purchased. The total inventory change is determined by adding the change in non-depreciable inventory plus the capital inventory change (depreciation).

The calculation can seem overwhelming. Yet when you keep accurate and up-to-date records, it is easy to determine your labor and management earnings. Keep in mind that this calculation does not include any income, expenses, or inventory not directly related to the business. By keeping your personal income and expenses separate, you are able to see if your business is being successful or if it is only staying afloat because you are contributing your personal assets to the business.

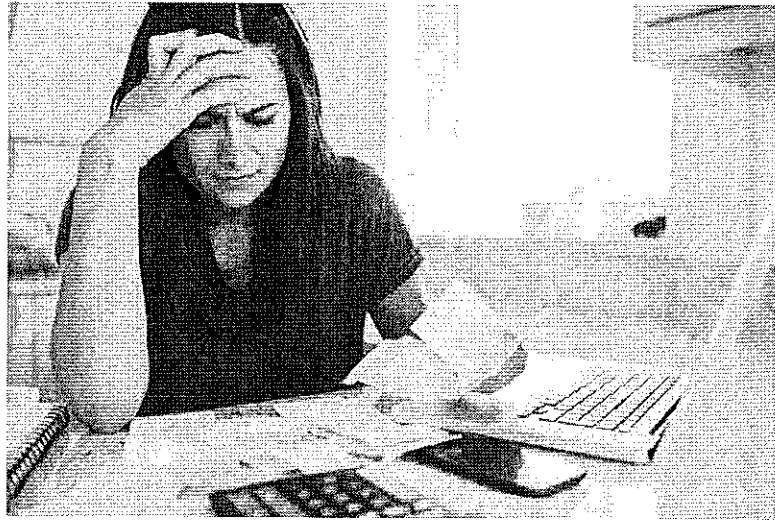


FIGURE 1. A student logs her receipts and expenses into her record-keeping program. By doing this on a regular basis, she will have a better idea of what she needs for her business to succeed.

## FURTHER EXPLORATION...

### ONLINE CONNECTION: The Probability of Success

Businesses fail every day. It is human nature to avoid failure, so we put everything that we have into being successful. This may include combining our personal finances with business finances, developing leadership and management skills, and building strong relationships with customers. Use online resources to explore what it takes for a business to succeed. Focus on the management aspects and the financial aspects.

Visit Web sites, such as <http://www.entrepreneur.com/> and <http://www.mbda.gov/>, to find out what it takes to be a successful entrepreneur. Create a list of the top 10 skills you feel are the most important as a successful business person. Present those topics to your class.

## SAE EXPERIENCES

**SAE experiences** are the daily tasks performed to carry out a business agreement (e.g., daily tasks and records of receipts and expenses). It is important to develop good record-keeping habits for SAE programs. For example, make entries on a regular basis. You may want to keep a calendar to write daily experiences and to choose one day a week as your record-keeping day. All of these are ways in which you can make the record-keeping process accurate without becoming overwhelmed.

When entering experiences into the SAE program, add the record details. The more details provided, the better the SAE program. Record receipts and expenses as they occur to minimize mistakes. Include who, what, when, where, and how much. For instance, “Fed cows and calves one grass hay round bale, filled water tanks, and checked animals for distress or injury. 1.5 unpaid hours” is a better entry than “fed, watered, and checked cows and calves.”



**FIGURE 2.** By logging your SAE experience hours on a calendar at the end of every day, you can make sure that your daily logs are accurate. This can be done on a paper calendar, smartphone, or tablet. Choose the option that best suits your needs.

## DEPRECIATION

**Depreciation** is a decline in asset value over the course of time. When an item is used, it develops normal wear and tear, thus decreasing its value. When recording depreciation in an SAE program, it is listed as an expense because the value of an inventory item decreased. Two depreciation methods are common in SAE programs: the straight-line method and the sum-the-digits method.

### ***Straight-Line Method of Depreciation***

The most common method of depreciation is the **straight-line method**, which is a procedure that depreciates assets based on the original cost, salvage value, and life of the item, deducting the same amount of depreciation for each year of the asset’s usable life. To calculate depreciation using this method, take the original cost, subtract the salvage value, and divide by the useful life of the item. The amount calculated is the depreciation amount by which the value of the item is decreasing each year. **Salvage value** is the remaining value of an asset at the end of its useful life. **Useful life** is the number of years that a depreciable asset is expected to be in use.

## Sum-the-Digits Method of Depreciation

The **sum-the-digits method** is a form of depreciation that uses the sum of the years of useful life, the original cost, and the salvage value of the asset. When using this method, the percentage of depreciation declines each year of the useful life of the asset. To calculate depreciation using this method, take the total years of the useful life, divide it by the sum of the digits of the life, multiply by the original cost, and subtract the salvage value. The calculation will have to be repeated each year to determine the depreciation value of the asset for that given year, unlike when using the straight-line method.



**FIGURE 3.** Over the course of time, all assets will eventually depreciate. Mechanical assets, such as vehicles, depreciate faster than assets such as breeding livestock. As cows give birth to high-quality offspring, their value will appreciate first before depreciating because they are no longer able to produce calves.



## BROADENING AWARENESS...

### AMAZING ASPECTS:

#### Sum-the-Digits Depreciation Example

Here is an example to better clarify the sum-the-digits method of depreciation: Sandy owns a lawnmower valued at \$5,000. The useful life of the lawnmower is 10 years, and the salvage value is \$700. Calculate the depreciation taken each year for Sandy's lawnmower.

Take the total years of the useful life divided by the sum of the digits of the life:

$$10 \div 55 (1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10) = 0.18$$

Multiply this number by the original cost:

$$0.18 \times \$5,000 = \$909.09$$

Subtract the salvage value to determine the amount of depreciation for year one:

$$\$909.09 - \$700 = \$209.09$$

In this example, you would depreciate the lawnmower by \$209.09 in the first year. To figure the amount of depreciation for the second year, start the calculation over using the remaining book value ( $\$5,000 - \$209.09 = \$4,790.91$ ) in place of the original value. Continue this process, with the help of your teacher, until the lawnmower is depreciated out at the end of the 10 year useful life span.



## SKILLS AND SAFETY ACTIVITIES

Skills and safety activities are recorded in an SAE program to show growth of knowledge and skill improvement throughout the experience. A **skill** is an ability to do something well. For every SAE, you should develop people, record-keeping, and professional skills. These skills will benefit you in the SAE program and serve you well when applying for jobs and scholarships. In addition, they will likely help further your educational future.

### Skill Types

People skills include learning how to speak professionally to customers and customer service as well as how to work with co-workers. Record-keeping skills teach you the importance of tracking useful information for business or personal decision-making purposes. In an SAE, most record keeping is focused on finances, tasks performed, skills developed, and participation in FFA activities. Professional skills are focused on how you conduct yourself in the workplace. You should dress appropriately for the type of work being done, respect co-workers, and handle all workplace situations with tact.

### Safety Activities

**Safety activities** are precautions taken to ensure a safe work environment for everyone involved. Safety precautions are going to vary for every SAE program. Students working with animals will need to be more aware of their surroundings because animals can spook and cause a lot of damage quickly. When working with crops and equipment, be careful performing maintenance on machinery. In addition, be cautious when dealing with chemicals.



FIGURE 4. Practicing safety is important in every SAE. Some SAEs are science-based experiments. With these experiments, it is important to wear proper safety attire.

### Summary:



Knowing your labor and management earnings is extremely important when determining whether your business is successful. This calculation should not include any personal finances or inventory. A business should be able to stand on its own financially. Otherwise, you need to readjust your spending to make your business profitable. Depreciation factors into the profitability of a business. Depreciation is

the decrease in the value of an item over the course of time due to wear and tear. When keeping records of SAE experiences, you need to make detailed entries to show growth in responsibilities. You should also be recording skills that you have gained from your experiences and the safety activities that you are practicing to do your job.

### Checking Your Knowledge:

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1. Describe how to calculate labor and management earnings.
2. When recording SAE experiences, what is important to include?
3. How does depreciation affect your labor and management earnings?
4. What is the difference between the straight-line and sum-the-digits depreciation methods?
5. Why is it important to record skills and safety activities in your SAE?

### Expanding Your Knowledge:

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Identify an asset that you personally have. How much did you pay for that asset when it was purchased? What is the useful life of that asset? Use the straight-line depreciation method to determine what your asset is worth today. Your agriculture teacher can help you with the calculation.

### Web Links:

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#### The National FFA Organization

<https://www.ffa.org/home>

#### Straight-Line Depreciation Calculator

<http://www.calculatorsoup.com/calculators/financial/depreciation-straight-line.php>

#### Record-Keeping and Livestock Operations

[http://www.farmandranchguide.com/news/livestock/good-record-keeping-valuable-to-livestock-operations/article\\_3eae5476-96bc-11e4-ac09-7b10f511ac6b.html](http://www.farmandranchguide.com/news/livestock/good-record-keeping-valuable-to-livestock-operations/article_3eae5476-96bc-11e4-ac09-7b10f511ac6b.html)

#### Farm Records

<http://sampson.ces.ncsu.edu/2012/07/the-importance-of-keeping-good-farm-records-4/>