***Lesson 2: Apples: Commodity and Organic- Teacher’s Guide***

**Estimated time for completion – approximately 45 minutes**

**Student Learning Objectives:**

* As a result of this lesson the student will…
  + Evaluate the production areas and capacities for apples.
  + Define the term “organic”.
  + Understand the purposes of USDA organic production system inspections.

**Purpose:** Imagine you are watching a presidential debate where two candidates are heatedly arguing their opinions on an important issue. After listening for a few minutes, you begin to realize that some of the things being said by the candidates do not sound quite right. You do some digging of your own into the topic and realize that the candidates are debating with inaccurate information, yet millions of people are being influenced by their words. With any issue, whether political or agricultural, it is important to know the facts of the topic so your opinion can be well supported. One of the big issues in the agricultural community right now is the topic of organically grown foods being either better or worse than traditionally raised foods. Knowing the information about how these foods are raised differently can give you more educated base to stand on in your discussions. Let’s take a closer look at this topic with apples.

**Directions:** Access the commodities and products tab on the AgMRC website (<http://www.agmrc.org>) and find the link to the Fruit profile page. Utilize information located here to answer the questions below:

1. According to the AgMRC website, the leading apple-producing states are “New York, Michigan, Pennsylvania, California, and Virginia”. What do you think could explain why apple production tends to be high in northern U.S. states? (Hint: Think climate.)

* Go to the AgMRC website, and find the “Commodities and Products” tab.
* Click on the Fruits link.
* Click on the “Apples” link and find the hyperlinked “Commodity Apples” page.
* From the “Commodity Apples” page, click the hyperlinked “Apples” page to find some pertinent information.
* \*Note: On this question, the information may not be found on the AgMRC website and students may have to put a little thought into this question to arrive at their conclusion(s).

1. The AgMRC website states that “U.S. apple growers received 29 cents per pound in 2011 for fresh market apples”. Using this data, how many pounds of apples would need to be sold in order for an apple producer to earn $45,000 from a particular orchard?

* To solve this problem, students will need to rely upon their skills in basic mathematics. The problem should be framed like this: $45,000/.29=155,172.41 pounds.

1. According to the USDA, what allows an agricultural product to be certified as “organic”?

* Go to the AgMRC website, and find the “Commodities and Products” tab.
* Click on the Fruits link.
* Click on the “Apples” link and find the hyperlinked “Commodity Apples” page.
* From the “Commodity Apples” page, click the hyperlinked “Apples” page.
* Scroll down the “Commodity Apple Profile” page down to the “Niche Markets” section to find the pertinent information.

1. According to data obtained from 2008 production statistics, Washington state produced just under $119 million in organics apples while California produced only $6.5 in organic apples. What are two reasons you think that explain the vast differences in production capacity (as measured in sales)? (Hint: Think about things such as climate, production capacity, etc.)

* \*Note: On this question, the information may not be found on the AgMRC website and students may have to put a little thought into this question to arrive at their conclusion(s). Thus, students’ critical thinking skills will be “put to the test” on this question. However, useful information may still be located within the “Apples” section of the AgMRC website.

1. Why do you think that “qualified [USDA] inspectors conduct annual on-site inspections” of organic apple orchards?

* \*Note: On this question, the information may not be found on the AgMRC website and students may have to put a little thought into this question to arrive at their conclusion(s). Thus, students’ critical thinking skills will be “put to the test” on this question. However, useful information may still be located within the “Apples” section of the AgMRC website.

**Reinforcement activity: Pros and Cons**

For this activity you need to continue your research into traditional and organically grown apples. Choose one of those two production methods and create a list of Pros and Cons to compare it to the other production method. You should have at least five Pros and five Cons identified.

**Production Method Chosen: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Compared to: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Pros** **Cons**