

STATISTICS FOR FIELD CORN AND SWEET CORN

Objective: After the lesson and activity, students will have a better understanding of corn statistics and the production differences between field corn and sweet corn.

Materials Needed:

- at least 99 kernels of field corn (ask local elevator or Ag Supply store)
- at least 1 kernel of sweet corn (use from can of corn or off sweet corn cob)
- “Corn Statistics” video by Illinois Corn Marketing Board(available on YouTube or TeacherTube)
- Corn Statistics handout (PDF on Illinois Corn website)
- Corn Statistics Math worksheet (PDF on Illinois Corn website)
- access to football field
- container with 56 lbs. of shelled corn (kernels)

Interest Approach:

Have students count out 99 kernels of field corn and then have one kernel of sweet corn. Have the students visually see the comparison and tell them that this is the real life comparison of field corn and sweet corn. Only 1% of the corn grown in the U.S. is sweet corn, which is the type of corn grown for human consumption. Let students know that this lesson is going to talk about how different the production statistics are between the two types of corn.

Lecture:

-So as you can see, there is a lot more field corn grown in the U.S. than sweet corn. The same is also true for Illinois, but even less than 1% of the corn grown in Illinois is sweet corn!

-You see 86 million acres of field corn were planted in the U.S. last year. An acre is about the size of a football field, so can you imagine 86 MILLION FOOTBALL FIELDS! That’s a lot of corn.

-Illinois planted 12.1 million acres of corn last year, which is also a lot for one state.

-Now if you compare those numbers to sweet corn numbers, there is a HUGE difference.

-In the U.S. last year, 617,350 acres of sweet corn were planted. Illinois produced almost 20 times that amount of field corn last year!

-Illinois only planted 7,000 acres of sweet corn which is very minimal compared to field corn.

-Now when you look at how much corn was actually produced, we usually talk in terms of bushels, which is equal to 56 pounds of field (dent) corn. Sweet corn can get confusing because sometimes it is in tons or other units but it can be converted into bushels. A bushel of sweet corn weighs about 70 pounds.

-In the U.S. last year, 12.1 billion bushels of corn were produced, that is A LOT of corn.

-Illinois produced 2.1 billion bushels, which is 17% of what the nation produced. Illinois was the #2 producer of corn last year behind Iowa. All of this corn was used for things that we have already talked about like livestock feed, ethanol, exports, and other items.

-Illinois actually produced enough field corn last year that if we had a train with box cars from here to Hong Kong, which is 7,600 miles, it would be FULL of corn!

-When it comes to talking about sweet corn, it is really hard to think about the difference because it is so big. Only 240 million bushels were produced last year in the U.S. and 991,428 of those came from Illinois.

-There is one thing to point out though about the U.S. and Illinois' sweet corn production. Illinois usually only raises sweet corn for fresh produce that people can eat right away like for corn on the cob. But the U.S. as a whole raises sweet corn for fresh produce as well as canned corn and frozen corn which has to be processed first. So that is one reason why Illinois barely grows any sweet corn. We have such good soil for field corn that farmers don't like to use it for sweet corn.

-Now probably one of the most important things when comparing the two different types of corn is how much money they make. Field corn makes a lot more money than sweet corn.

-Last year the U.S. made \$49.6 BILLION from field corn and Illinois made \$8.1 billion of that.

-Sweet corn was only worth \$1.1 billion last year and Illinois only made \$15.4 million.

-So as you can see, field (dent) corn is much more important to our country and our economy than sweet corn is. Yes everyone loves to eat sweet corn but field corn is where farmers make all their money.

**Give students "Corn Statistics" handout for them to have the information for later use.

****To reinforce the information, show students the “Corn Statistics” video made by Illinois Corn Marketing Board that is on YouTube and TeacherTube.****

Activity:

This activity is more for middle school and junior high students because there is some harder math involved. But look below for other activities that can be used for younger students. For this activity, have students do the “Corn Statistics Math” worksheet using the “Corn Statistics” handout. This worksheet has students doing percentages, adding and subtracting large numbers, and other math problems. Make sure students realize how much field corn is actually grown in the U.S. compared to sweet corn.

Illinois Learning Standards: 6.A.3, 6.B.3a, 6.C.3a, 8.A.3a, 8.C.3

Illinois Assessment Frameworks: 6.5.01, 6.5.02, 6.5.04, 6.5.12, 6.5.13, 8.5.05, 8.5.07, 8.5.09, 6.6.01, 6.6.02, 6.6.03, 6.6.04, 6.6.05, 6.6.12, 6.6.13, 6.6.16, 8.6.02, 8.6.08, 6.7.01, 6.7.02, 6.7.03, 6.7.09, 6.7.10, 8.7.02, 6.8.01, 6.8.02, 6.8.03, 6.8.09, 6.8.11, 8.8.02

Additional Activities:

****Corn Exercise Activity (Elementary students):** The purpose of this activity is to try to help students understand the size and relationship of an acre of corn and a bushel of corn. For students to understand the size of an acre, have them go outside and walk/run/skip or do some kind of exercise around the edge of a football field. (To be more precise, an acre is really from one 10 yard line to the other endzone of the field) For this activity though just have them do some sort of exercise around the edge of a football field. Then have students imagine what 86 million of the football fields would look like and tell them that is how much corn is planted each year. Then for them to understand what a bushel is, have a bucket or a garbage can filled with 56 lbs. of corn. Have students try to lift it and then have them try in groups. After they have tried lifting the container, tell them that is how much corn is in one bushel of corn. Ask them if they can even imagine 12.1 billion bushels of corn which is how much the U.S. produced last year.

Illinois Learning Standards: 19.A.1, 19.A.2, 20.A.1b, 20.A.2b, 21.A.1a, 21.A.2a, 21.A.1c, 21.A.2c, 21.B.1, 21.B.2

Field Corn and Sweet Corn Statistics



Field Corn

In the United States:

86 million acres planted
12.1 billion bushels produced
Value=\$49.6 billion

In Illinois:

12.1 million acres planted
2.1 billion bushels produced
Value=\$8.1 billion

Both the United States' and Illinois' field corn is used for livestock feed, ethanol, exports, and other domestic and industrial uses. Illinois is the #2 producer of field corn in the U.S.

Sweet Corn

In the United States:

617,350 acres planted
240 million bushels equivalents
Value=\$1.1 billion

In Illinois:

7,000 acres planted
991,428 bushel equivalents
Value=\$15.4 million

The United States as a whole raises sweet corn for fresh produce and also processing to make canned corn and frozen corn. Illinois mainly raises sweet corn for fresh produce and that is why it has smaller numbers.

Only 1% of the corn grown in the U.S. is sweet corn!

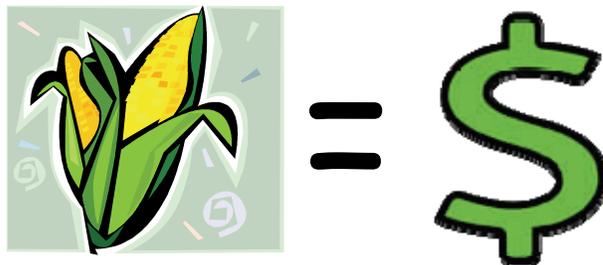
Corn Statistics Math

Directions: Do the following problems using the "Field Corn and Sweet Corn Statistics" handout. Make sure to put the correct units/labels. This will help you to see how much corn is grown in the U.S. as well as in Illinois. Also, it will help you realize the different production amounts between field corn and sweet corn.

1. How many total acres of corn are planted each year in the U.S.? _____
2. How many total acres of corn are planted each year in Illinois? _____
3. What percentage of corn planted in the U.S. is actually planted in Illinois?

4. How many bushels of field corn would be produced in the U.S. if Illinois didn't produce any? _____
5. How many bushels of sweet corn would be produced in the U.S. if Illinois did produce any? _____
6. What percentage of field corn does Illinois produce for the nation? _____
7. What percentage of sweet corn does Illinois produce for the nation?

8. How much money does the U.S. make from both corn industries? _____
9. How much money does Illinois make from its corn industries? _____
10. What percentage of the income of the nation's corn comes from Illinois?



Corn Statistics Math

Directions: Do the following problems using the "Field Corn and Sweet Corn Statistics" handout. Make sure to put the correct units/labels. This will help you to see how much corn is grown in the U.S. as well as in Illinois. Also, it will help you realize the different production amounts between field corn and sweet corn.

1. How many total acres of corn are planted each year in the U.S.? 86,617,350 acres
2. How many total acres of corn are planted each year in Illinois? 12107000 acres
3. What percentage of corn planted in the U.S. is actually planted in Illinois?
14%
4. How many bushels of field corn would be produced in the U.S. if Illinois didn't produce any? 10 billion bushels
5. How many bushels of sweet corn would be produced in the U.S. if Illinois did produce any? 239,008,572 bushels
6. What percentage of field corn does Illinois produce for the nation? 17%
7. What percentage of sweet corn does Illinois produce for the nation? 4% or <1%
8. How much money does the U.S. make from both corn industries? \$50.7 billion
9. How much money does Illinois make from its corn industries? \$8,115,400,000
10. What percentage of the income of the nation's corn comes from Illinois? 16%



