

# American Agriculture's Share of World Production

**Grade Level: 4-8**

## Lesson Overview

While learning about USA agricultural import and exports, the students will use data from charts to do math calculations using fractions and decimals. They will also convert chart information into a bar graph.

## Student Objectives

1. Interpret charts and graphs to answer questions.
2. Convert information from a chart to a vertical bar graph.
3. Execute math calculations using fractions and decimals.

## Materials

- ✓ graph paper
- ✓ American Agriculture's Share of World Production Worksheet
- ✓ American Agriculture's Imports and Exports in Billions of Dollars Worksheet

## Vocabulary

- **export** - shipments of products to foreign countries.
- **import** - shipments of products from foreign countries.

## Background Information

American agricultural products are exported around the globe, in 2018, this accounted for \$139.6 billion. Canada, Mexico and EU-28 made were the top three customers, accounting for nearly 40% of the exports. About 25% of all agricultural products by value are exported yearly.

## Procedure

Discuss the United States' share of world production for various agricultural commodities. Instruct students on performing math calculations to determine the information that is missing on the chart. Have the students complete American Agriculture's Share of World Production Worksheet.

## Extension Activities

1. Students could use their graphs to make inferences, as well as compare and contrast the various commodities. They could also find information on their state's agriculture to see what commodities are grown.
2. Have students write the billion dollars units in expanded form.

## Additional Resources:

- <https://youtu.be/IRJtl60OsHk> top 10 countries and their export products.
- <https://youtu.be/YMQesjJg7Rs> simplistic explanation of why countries import and export goods.

## Standards

### **Illinois Mathematics Standard**

7.NS.2b – 2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. b. Interpret quotients of rational numbers by describing real -world contexts.

### **Illinois English Language Arts Standard**

L5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

The **M**ultidisciplinary **A**gricultural Integrated Curriculum (mAGic) was created in 2004 under the leadership of the Illinois State Board of Education (ISBE) and the Facilitating Coordination in Agricultural Education Project (FCAE). Funding was made available through the FCAE grant budget from the agricultural education line item of the ISBE budget. This revision, as printed, was developed in April 2021.



These mAGic lessons are designed to bring agriculture to life in your classroom. They address the Illinois Learning Standards in math, science, English language arts and social studies.

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## American Agriculture's Share of World Production Worksheet

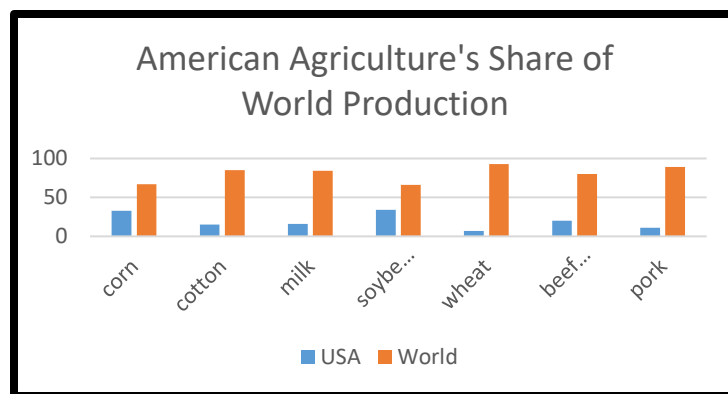
Complete the chart, being sure to convert the fractions to their simplest form. Once finished, make a vertical graph to show both the U.S. and the rest of the world's % of world production.

<b>Commodity</b>	<b>USA</b>	<b>World</b>
corn %	33%	
corn decimal		
corn fraction		
cotton %	15%	
cotton decimal		
cotton fraction		
milk %	16%	
milk decimal		
milk fraction		
soybeans %	34%	
soybeans decimal		
soybeans fraction		
wheat %	7%	
wheat decimal		
wheat fraction		
beef and veal %	20%	
beef and veal decimal		
beef and veal fraction		
pork %	11%	
pork decimal		
pork fraction		

## American Agriculture's Share of World Production ANSWER KEY

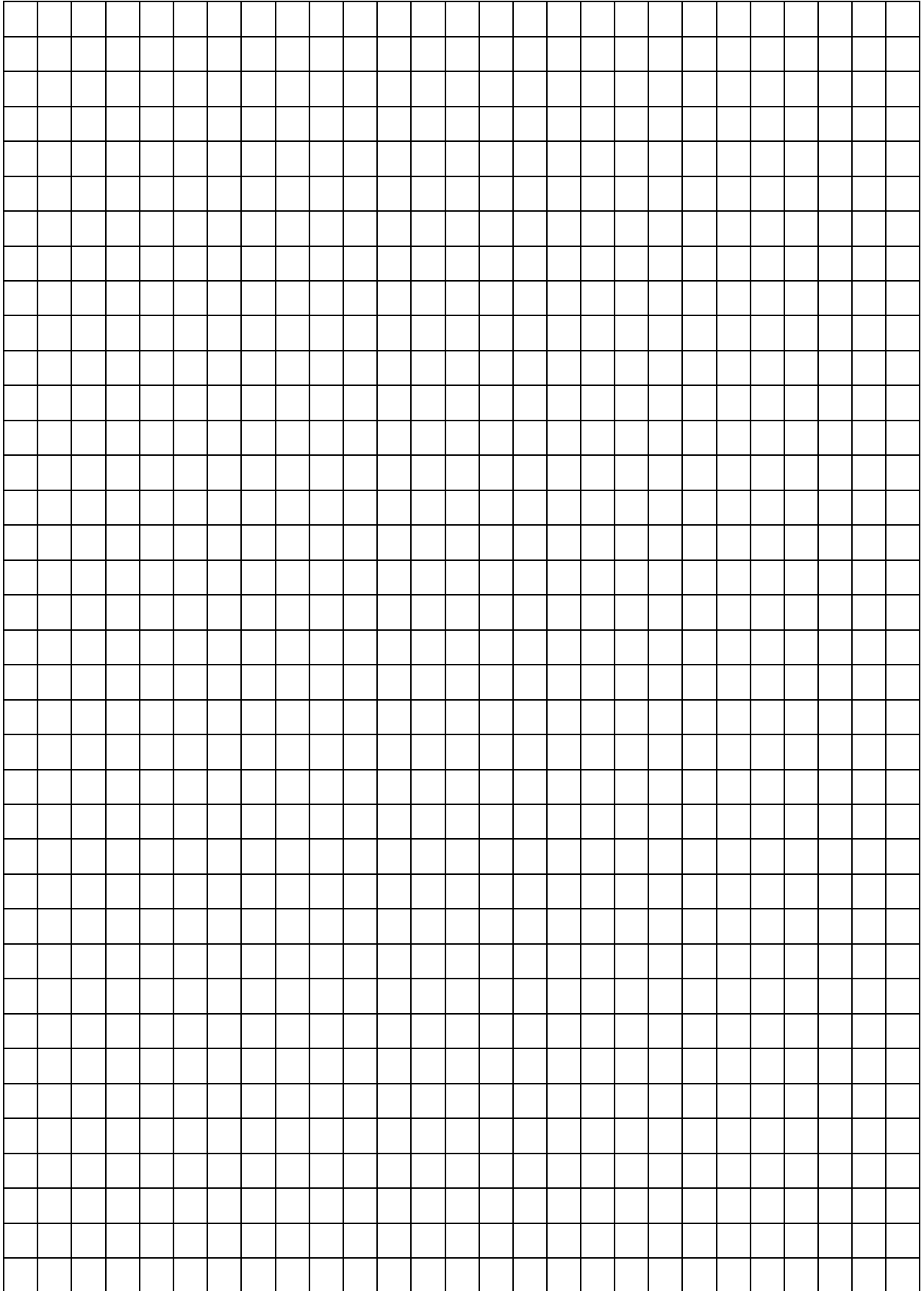
Complete the chart, being sure to convert the fractions in their simplest form. Once finished, make a vertical graph to show both the U.S. and the rest of the world's % of world production.

<b>Commodity</b>	<b>USA</b>	<b>World</b>
corn %	33%	67%
corn decimal	<b>0.33</b>	<b>0.67</b>
corn fraction	<b>33/100</b>	<b>67/100</b>
cotton %	15%	85%
cotton decimal	<b>0.15</b>	<b>0.85</b>
cotton fraction	<b>15/100 (3/20)</b>	<b>85/100 (17/20)</b>
milk %	16%	84%
milk decimal	<b>0.16</b>	<b>0.84</b>
milk fraction	<b>16/100 (4/25)</b>	<b>84/100 (21/25)</b>
soybeans %	34%	66%
soybeans decimal	<b>0.34</b>	<b>0.66</b>
soybeans fraction	<b>34/100 (17/50)</b>	<b>66/100 (33/50)</b>
wheat %	7%	93%
wheat decimal	<b>0.07</b>	<b>0.93</b>
wheat fraction	<b>7/100</b>	<b>93/100</b>
beef and veal %	20%	80%
beef and veal decimal	<b>0.20</b>	<b>0.80</b>
beef and veal fraction	<b>20/100 (1/5)</b>	<b>80/100 (4/5)</b>
pork %	11%	89%
pork decimal	<b>0.11</b>	<b>0.89</b>
pork fraction	<b>11/100</b>	<b>89/100</b>



Source: USDA, FAS Online 2019

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## America's Annual Agricultural Imports and Exports in Billions of Dollars Worksheet

**Instructions: Using the data from the chart below, answer the following questions:**

1. Find the total of the USA agricultural exports: \_\_\_\_\_
2. Find the total of the USA agricultural imports: \_\_\_\_\_
3. Find the difference between the two: \_\_\_\_\_
4. If we had a chart showing each USA agricultural product imported, it would add up to \$128.8 billion. If we had a chart showing each agricultural product the USA exported, it would total \$139.6 billion. Using the total amount of USA agricultural products exported and imported, does the USA import or export more agricultural products? \_\_\_\_\_ By how many billions of dollars? \_\_\_\_\_
5. Why do you think we import products from other countries? \_\_\_\_\_

### **USA Agricultural Top Exports in Billions of Dollars:**

Rice	\$1.7
Dairy Products	\$5.5
Soybeans	\$17.1
Processed and Fresh Fruits and Vegetables	\$11.5
Wheat	\$5.4
Tree Nuts	\$8.5
Feeds and Fodder	\$8.0
Beef, Veal, Pork and Poultry	\$19.0
Corn	\$12.5
Cotton	\$6.6

### **USA Agricultural Top Imports in Billions of Dollars:**

Grains and Feed	\$13.7
Fresh and Processed Fruits	\$17.5
Livestock and Meats	\$12.0
Fresh and Processed Vegetables	\$13.0
Wine and Malt Beverages	\$11.8
Coffee and Cocoa	\$10.7

## America's Annual Agricultural Imports and Exports in Billions of Dollars Worksheet ANSWER KEY

**Instructions: Using the data from the chart below, answer the following questions:**

1. Find the total of the USA top agricultural exports:  
**\$79.8 billion (\$79,800,000,000.00)**
  
2. Find the total of the USA top agricultural imports:  
**\$95.8 billion (\$95,800,000,000.00)**
  
3. Find the difference between the two: **\$16.0 billion (\$16,000,000,000.00)**
  
4. If we had a chart showing each USA agricultural product imported, it would add up to \$128.8 billion. If we had a chart showing each agricultural product the USA exported, it would total \$139.6 billion. Using the total amount of USA agricultural products exported and imported, does the USA import or export more agricultural products? **Exports** By how many billions of dollars? **\$10.8 (\$10,800,000,000.00)**
  
5. Why do you think we import products from other countries? **Accept any reasonable answer concerning our needs to get things we can't grow here due to our climate.**

### **USA Agricultural Top Exports in Billions of Dollars:**

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