

SOCIAL STUDIES: Using maps, Evaluate and draw conclusions from maps, Locate information /
READING: Vocabulary, Prereading, Inference, Analysis/Evaluation, Analyze historical content /
WRITING: Express individual's insight, Develop interpretations, Writing for different purposes, Friendly letters /
ORAL LANGUAGE: Listening, Speaking / **Visual Literacy:** Produce maps, charts, graphs

Dear George

Using census data to report on agriculture

Background

In 1791 President George Washington, received a letter from an Englishman named Arthur Young requesting information on land values, crops, yields, livestock prices, and taxes in the US. By personally conducting a mail survey and compiling the results, Washington was able to gather enough information to reply fully to his English correspondent. This was, in effect, the nation's first agricultural survey.

Between September 24 and November 18, 1791, Washington sent Young three letters that provided agricultural statistics on an area extending roughly 250 miles from north to south and 100 miles from east to west. The strip ran through an area which is today Pennsylvania, West Virginia, Maryland, Virginia, and the District of Columbia, where most of the young country's population lived at that time.

Washington's reports to Young reflect some of the same concerns farmers have today. He worried that prices weren't keeping up with the cost of raising crops. He worried that some farmers weren't good stewards of the land. He worried about the cost of transporting agricultural goods to markets and improving those routes.

Washington asked Congress to establish a National Board of Agriculture in 1776, but Congress rejected the idea at that time.

The issue wasn't raised again until 1839, when Commissioner of Patents Henry Ellsworth persuaded Congress to designate \$1,000 from the Patent Office Fund for "collecting and distributing seeds, carrying out agricultural investigations, and procuring agricultural statistics."

In 1840, the first Census of Agriculture collected detailed agricultural information to provide the first nationwide inventory of agricultural production.

The US Department of Agriculture (USDA) was established by Abraham Lincoln in 1862, and its first crop report appeared in July, 1863. The National Agricultural Statistics Service (NASS) traces its roots all the way back to 1863, when USDA established a Division of Statistics.

During the Civil War, USDA collected and distributed crop and livestock statistics to help farmers assess the value of the goods they produced. At that time, commodity buyers usually had more current and detailed market information than did farmers, a circumstance that often prevented farmers from

P.A.S.S.

GRADE 6

Social Studies— 1.1,2; 3.1

Reading— 1.1a; 3.1a,4d;
4.4a

Writing— 2.4a,6a,7,8

Oral Language— 1.2; 2.2

Visual Literacy— 3

GRADE 7

Social Studies— 1.1; 2.4;

6.1

Reading— 1.1; 3.1a,2a;
4.4a

Writing— 2.4b,6a,8,9

Oral Language— 1.2; 2.2

Visual Literacy— 3.1

GRADE 8

Social Studies— 1.1,2,5;

2.1

Reading— 1.1; 3.1a,2a,4;
4.4a

Writing— 2.5a,7d,8,9

Oral Language— 1.2; 2.2

Visual Literacy— 3.1

Resources Needed

US map

getting a fair price for their goods.

Today NASS is responsible for conducting the Census of Agriculture. The Census of Agriculture is a complete accounting of agricultural production in the United States and is the only source of uniform, comprehensive agricultural data for every county in the nation. From 1840 to 1920 the Census of Agriculture was taken every 10 years. Since 1925 the census has been taken every five years, in the years ending in 2 and 7. In addition, NASS field offices in every state produce a wide variety of reports throughout the year, along with an annual report. The reports are used by producers, researchers, the news media, people involved in financial markets and many others. These reports are compiled only for the top agricultural commodities from a sampling of state producers contacted at random. In contrast, the census of agriculture reports on every agricultural commodity produced in the state, based on surveys collected from every producer.

Activities

1. Read and discuss background and vocabulary.
 - Lead a discussion about the difference between the way information was shared in George Washington's time (by letter) compared with the way we acquire information today.
 - Ask students where they would find the kind of information Arthur Young asked George Washington to provide.
2. Provide each student with the Census of Agriculture data included with this lesson and a copy of the modern day version of the letter Arthur Young might have written to George Washington.
 - Students will use the data to compose a reply.
 - Students will include information about the following topics in their letters: land value, crops, yields, and livestock prices.
3. Divide students into groups.
 - Each group will select either a commodity or a state or region and use the census data to develop promotional brochures, posters or Power Point presentations.
4. Provide students with the excerpts from George Washington's letters to Arthur Young and others included with this lesson.
 - Students will rewrite the excerpts in modern English.
5. Students will design surveys to gather information about their school.
 - Students will present the information to local audiences in a variety of forms—charts, graphs, prose, oral presentation, etc.
6. Students will design surveys about agriculture in another state or country.
 - Make arrangements to connect with a classroom in another state or country.
 - Divide your class into two groups.
 - One group will use email to correspond with the other class while the other will use the US Postal Service.
 - Track responses on a map of the US or the world.
 - Students will discuss advantages and disadvantages of each method of

correspondence.

Lesson adapted from: "Arthur Young and the President," lesson plan from the National Agricultural Statistics Service, USDA,

http://www.nass.usda.gov/Education_&_Outreach/Lesson_Plans/index.asp

Extra Reading

Adler, David A, *George Washington: An Illustrated Biography*, Holiday House, 2005.

Benson, Kathleen, and James Ransome, *Building a New Land: African Americans in Colonial America*, Amistad/Harper Collins Children's, 2002.

Bial, Raymond, *Where Washington Walked*, Walker & Co., 2005.

Diouf, Sylviane, *Growing Up in Slavery*, Millbrook, 2002.

Haskins, Jim, *The Geography of Hope: Black Exodus From the South After Reconstruction*, 21st Century/Millbrook, 2000.

McMullan, Margaret, *How I Found the Strong*, Houghton Mifflin, 2005.

Miller, Brandon Marie, *Growing Up in Revolution and the New Nation 1775 to 1800*, Lerner, 2003.

Robb, Don, and Christine Joy Pratt, *This is America: The American Spirit in Places and People*, Charlesbridge, 2006.

Watkins, Richard, *Slavery: Bondage Through History*, Houghton Mifflin, 2002.

Vocabulary

agriculture—the science or occupation of cultivating the soil, producing crops, and raising livestock

analyze—to study or find out the nature and relationship of the parts of

assess—to set a value on (as property) for tax purposes

bale—a large bundle of goods tightly tied for storing or shipping

bushel—any of various units of dry capacity

census—a counting of the population (as of a country, city, or town) and a gathering of related statistics done by a government every so often

comprehensive—including much or all

contemptible—the state of being despised

correspondent—one who communicates with another by letter

cwt—abbreviation for hundredweight, a unit of weight equal to 100 pounds

data—facts about something that can be used in calculating, reasoning, or planning

husbandry—wise management of resources

livestock—animals kept or raised; especially farm animals kept for use and profit

statistics—a branch of mathematics dealing with the collection and study of numerical data; also, a collection of such numerical data

survey—to gather information from or about

uniform—of the same form with others

yield—the amount or quantity produced or returned

Dear George

Use the Census of Agriculture data provided by your teacher to compose a response to this letter.

May 31, 2007

Dear George,

It was nice to get your letter and to hear all about your school, your town and your friends. I loved the photos you sent of your family's camping trip. What a beautiful place!

It's always interesting to hear about life in your country. I hope I get to visit there sometime. I would also love for you to come visit me. As you know, my family has a farm, and when I am not in school, I am usually helping with that.

What is farming like in your country? What kinds of crops grow there? Are there some crops that your country produces more than any other? How much is produced in a year? What kind of livestock do you raise? How much is the selling price? How much does farm land cost? Is it more expensive in certain parts of the country? Does the price stay the same or does it go up and down from one year to the next?

As you can see, I have many questions. Thank you again for your letter. I look forward to hearing from you again.

Your Friend,
Art

Farm Real Estate: Average Value per Acre, by Region and State, January 1, 2002-2006

<u>State</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>	<i>Dollars</i>
NORTHEAST	3,000	3,200	3,550	4,110	4,550
Connecticut	8,500	9,500	10,200	10,800	11,400
Delaware	3,700	4,000	6,000	8,400	10,200
Maine	1,600	1,750	1,850	1,950	2,050
Maryland	4,000	4,150	5,700	7,900	8,900
Massachusetts	8,100	9,300	9,900	10,500	11,600
New Hampshire	2,800	3,100	3,250	3,450	3,700
New Jersey	8,600	9,100	9,750	10,500	10,900
New York	1,610	1,700	1,780	1,920	2,050
Pennsylvania	3,250	3,450	3,650	4,220	4,790
Rhode Island	8,300	9,300	10,200	11,200	12,500
Vermont	1,900	2,050	2,150	2,300	2,450
LAKE STATES	1,870	2,010	2,220	2,520	2,840
Michigan	2,470	2,680	2,920	3,150	3,500
Minnesota	1,500	1,600	1,800	2,100	2,400
Wisconsin	2,150	2,300	2,500	2,850	3,200
CORN BELT	2,030	2,130	2,300	2,720	3,040
Illinois	2,350	2,430	2,610	3,330	3,800
Indiana	2,460	2,570	2,770	3,140	3,630
Iowa	1,920	2,010	2,220	2,650	2,930
Missouri	1,380	1,470	1,580	1,790	1,980
Ohio	2,600	2,740	2,930	3,180	3,480
NORTHERN PLAINS	576	594	632	735	834
Kansas	665	685	715	850	930
Nebraska	760	775	825	940	1,090
North Dakota	415	425	455	505	560
South Dakota	430	460	500	605	710
APPALACHIAN	2,250	2,370	2,560	3,110	3,470
Kentucky	1,830	1,900	2,000	2,500	2,750
North Carolina	2,900	3,100	3,300	3,940	4,250
Tennessee	2,300	2,400	2,500	2,850	3,070
Virginia	2,530	2,700	3,200	4,050	4,900
West Virginia	1,330	1,400	1,500	1,950	2,150
SOUTHEAST	2,140	2,270	2,420	3,530	4,420
Alabama	1,700	1,760	1,860	2,400	2,750
Florida	2,720	2,900	3,100	5,400	7,280
Georgia	2,050	2,200	2,350	3,200	3,900
South Carolina	1,900	2,050	2,150	2,400	2,600
DELTA STATES	1,390	1,460	1,580	1,790	1,960
Arkansas	1,410	1,480	1,650	1,870	2,050
Louisiana	1,440	1,500	1,580	1,770	1,900
Mississippi	1,330	1,400	1,480	1,690	1,850
SOUTHERN PLAINS	755	788	832	1,000	1,190
Oklahoma	680	705	745	900	970
Texas	775	810	855	1,030	1,250
MOUNTAIN	500	523	550	698	944
Arizona	1,400	1,500	1,600	2,330	3,350
Colorado	700	730	775	940	1,090
Idaho	1,240	1,280	1,360	1,750	2,440
Montana	370	390	410	510	760
Nevada	465	480	500	650	1,000
New Mexico	250	260	265	360	520
Utah	1,040	1,100	1,150	1,460	2,070
Wyoming	285	300	315	370	420
PACIFIC	2,240	2,350	2,480	3,120	3,290
California	3,400	3,600	3,800	5,090	5,390
Oregon	1,150	1,200	1,250	1,350	1,420
Washington	1,390	1,480	1,530	1,650	1,750

Crop Summary: Production, United States, 2006

<u>Crop</u>	<u>Unit</u>	<u>2006</u> <i>1,000</i>
GRAINS & HAY		
Barley	bushel	180,051
Corn for Grain	bushel	10,534,868
Corn for Silage	ton	104,849
Hay, All	ton	141,666
Oats	bushel	93,764
Proso Millet	bushel	10,195
Rice	cwt	193,736
Rye	bushel	7,193
Sorghum for Grain	bushel	277,538
Sorghum for Silage	ton	4,642
Wheat, All	bushel	1,812,036
OILSEEDS		
Canola	pound	1,394,332
Cottonseed	ton	7,632
Flaxseed	bushel	11,019
Mustard Seed	pound	28,220
Peanuts	pound	3,474,450
Rapeseed	pound	1,100
Safflower	pound	191,405
Soybeans for Beans	bushel	3,188,247
Sunflowers	pound	2,143,613
COTTON, TOBACCO & SUGAR CROPS		
Cotton, All	bale	21,729
Sugarbeets	ton	33,765
Sugarcane	ton	29,489
Tobacco	pound	726,724
DRY BEANS, PEAS & LENTILS		
Austrian Winter Peas	cwt	259
Dry Edible Beans	cwt	24,247
Dry Edible peas	cwt	13,203
Lentils	cwt	3,244
Wrinkled Seed Peas	cwt	590
POTATOES		
Coffee (Hawaii)	pound	7,300
Ginger Root (Hawaii)	pound	4,300
Hops	pound	57,687
Peppermint Oil	pound	7,248
Potatoes, All	cwt	434,683
Spearmint Oil	pound	2,038
Sweet Potatoes	cwt	16,441
Taro (Hawaii)	pound	4,500

Source: Crop Production 2006 Summary, Agricultural Statistics Board, NASS, USDA, January, 2007, <http://usda.mannlib.cornell.edu/>

Livestock: Average Prices Received by States, 2005

Dollars per cwt

	<u>Lambs</u>	<u>Hogs</u>	<u>Beef Cattle</u>
Alabama	79.10	44.00	84.00
Alaska	79.10	82.00	95.60
Arizona	75.00	59.20	93.40
Arkansas	79.10	47.90	89.10
California	74.80	50.70	70.40
Colorado	74.30	53.60	110.00
Connecticut	110.00	45.00	70.00
Delaware	79.10	42.50	85.80
Florida	79.10	44.50	80.00
Georgia	79.10	52.00	68.60
Hawaii	79.10	89.80	50.90
Idaho	70.30	48.90	81.30
Illinois	68.00	51.40	86.90
Indiana	71.30	49.00	85.20
Iowa	69.70	52.00	89.00
Kansas	75.60	46.90	90.10
Kentucky	79.10	49.10	90.90
Louisiana	79.10	43.60	67.20
Maine	110.00	45.00	79.00
Maryland	79.10	42.50	85.80
Massachusetts	110.00	45.00	72.00
Michigan	69.00	46.70	73.20
Minnesota	73.20	50.70	79.10
Mississippi	79.10	46.60	76.80
Missouri	75.00	45.50	98.00
Montana	76.80	53.10	104.00
Nebraska	72.50	51.80	92.30
Nevada	70.00	46.60	93.80
New Hampshire	110.00	45.00	77.00
New Jersey	79.10	40.00	55.00
New Mexico	75.00	47.50	87.00
New York	83.10	43.30	49.90
North Carolina	79.10	50.70	77.90
North Dakota	71.50	51.30	99.20
Ohio	73.70	49.40	83.30
Oklahoma	73.00	43.90	104.00
Oregon	66.90	53.20	85.90
Pennsylvania	81.10	47.30	75.70
Rhode Island	110.00	45.00	70.00
South Carolina	79.10	50.50	87.10
South Dakota	79.70	50.90	95.90
Tennessee	79.10	47.40	83.10
Texas	76.50	45.40	89.90
Utah	73.80	55.90	94.00
Vermont	110.00	45.00	75.00
Virginia	74.90	46.60	84.80
Washington	66.50	48.90	103.00
West Virginia	72.80	46.60	72.00
Wisconsin	70.40	47.10	66.70
Wyoming	75.70	46.60	102.00
US Average			79.40
50.20			68.60

Excerpts From George Washington's Letters About Agriculture in the US

Long before cell phones, email and fax machines, people relied heavily on letters for sharing all kinds of information. The following are quotes from letters George Washington wrote to an English agriculturalist, Arthur Young, and others. Read the quotes, and then rewrite them in modern English, as though you were writing them to a friend today. Try to guess the meaning of unfamiliar words by reading them in context. Also notice the punctuation, capitalization and spelling that is different from what is considered correct today.

1. I have a prospect of introducing into this Country a very excellent race of animals also, by means of the liberality of the King of Spain. One of the Jacks which he was pleased to present to me (the other perished at sea) is about 15 hands high, his body and Limbs very large in proportion to his height; and the Mules which I have had from him appear to be extremely well formed for Service. I have likewise a Jack and two Jennets from Malta, of a very good size, which the Marquis de la Fayette sent to me. The Spanish Jack seems calculated to breed for heavy, slow draught; and the other for the Saddle or lighter carriages. From these, altogether, I hope to secure a race of extraordinary goodness, which will stock the Country. Their longevity and cheap keeping will be circumstances much in their favor. I am convinced, from the little experiments I have made with ordinary Mules, (which perform as much labor, with vastly less feeding than horses) that those of a superior quality will be of the best cattle we can employ for the harness. And indeed, in a few years, I intend to drive no other in my carriage: having appropriated for the sole purpose of breeding them, upwards of 20 of my best Mares.

George Washington
(Letter to Arthur Young, December 4, 1788)

2. . . . Of hogs many, but as these run pretty much at large in the Woodland (which is all under fence) the number is uncertain

George Washington
(Letter to Arthur Young, December 12, 1793)

3. Every improvement in husbandry should be gratefully received and peculiarly fostered in this Country, not only as promoting the interests and lessening the labour of the farmer, but as advancing our respectability in a national point of view; for in the present State of America, our welfare and prosperity depend upon the cultivation of our lands and turning the produce of them to the best advantage.

George Washington
(Letter to Samuel Chamberlain, April 3, 1788)

4. When I speak of a knowing farmer, I mean one who understands the best course of crops; how to plough, to sow, to mow, to hedge, to Ditch and above all, Midas like, one who can convert everything he touches into manure, as the first transmutation towards Gold; in a word one who can bring worn out and gullied lands into good tilth in the shortest time.

George Washington
(Letter to George William Fairfax, June 30, 1785)

5. To tell a farmer. . . that his Cattle & ca. Ought to be regularly penned in summer and secured from bad weather in winter, and the utmost attention paid to the making of manure for the improvement of his fields at both seasons; that his oxen should be well attended to, and kept in good and fit condition, thereby enabling them to perform the labor which they must undergo; to remind him of these things would, I say, be only observing what every Farmer must be thoroughly sensible of his duty enjoins...

George Washington
(Letter to William Pearce, September 23, 1793)

6. I think it would be no unsatisfactory experiment to fat one bullock altogether with Potatoes; another, altogether with Indian meal; and third with a mixture of both: keeping an exact account of the time they are fattening, and what is eaten of each, and of hay, by the different steers; that a judgement may be formed of the best and least expensive mode of stall feeding beef for market, or for my own use.

George Washington
(Letter to William Pearce, December 7, 1794)

7. No wheat that has ever yet fallen under my observation, exceeds the White which some years ago I cultivated extensively; but which, from inattention during my absence from home of almost nine years has got mixed or degenerated as scarcely to retain any of its original characteristic properties. But if the march of the Hessian Fly, Southerly, cannot be arrested. . .this White Wheat must yield the palm to the yellow bearded, which alone, it seems, is able to resist the depredations of that destructive insect. This makes your present of it to me more valuable. It shall be cultivated with care.

George Washington
(Letter to John Beale Bordley, August 17, 1788)

Source: The George Washington Papers at the Library of Congress, 1741-1799