



Agriculture in Virginia

from the Virginia GeoInquiries collection

VIRGINIA STUDIES

Target Audience - Virginia Studies, Grades 4, 5

Time required – 15 minutes

Activity	Explore the contributions of agriculture to Virginia's economy.
Virginia Standards of Learning	VS.1b Analyzing the impact of geographic features on people, places, and events to support an understanding of events in Virginia history VS.10b Describing the major products and industries important to Virginia's economy.
Learning Outcomes	- Students will be able to identify Virginia's major agricultural products and where they are grown. - Students will explain the effects of agriculture on Virginia's economy.

MAP URL: bit.ly/VAGeo_4

Ask

How does the percent of agricultural land vary?

- Click the link above to launch the map.
- Examine the legend.
- ? What is the range in percent agricultural land? (*0 to 66 percent*)
- ? Where are the areas with low percentages of agricultural land located? (*northeastern Virginia, along the northern shore of the eastern portion of the James River*)
- Zoom out. Click several of the small, light areas, and examine the pop-ups. (See *Tooltip* on the next page)
- ? What do you notice about the areas with zero percent agricultural land? (*most are cities*)

Acquire

What are some key Virginia crops?

- With the Details Button underlined, select the Content button.
- Check the box to the left of Apple Growers, and Map Notes. Zoom in as needed.
- ? Which counties show a concentration of apple growers? (*Frederick, Nelson, and Rappahannock*)
- Read Map Note A. How do apples affect Virginia's economy? (*\$225, 12th largest amount in the state*)
- Turn on the Wineries layer. Read Map Note B.
- ? Why do you think the dollar amount for the wineries is so high? (*associated services such as gas stations, restaurants, hotels etc. for people who visit the wineries.*)
- Examine Map Notes, D, E, F, and G.
- ? What other crops are produced in Virginia? (*tobacco, cotton, seafood, and peanuts*)
- ? For which crops is Virginia among the top ten producers in the United States? (*tobacco, apples, peanuts, seafood*)

Explore

Where is Virginia's chicken production concentrated?

- Uncheck the Apple Growers and the Wineries layers. Check the Chickens (broilers) layer. Zoom in and read Map Note C. (See *Tooltip* on the next page)
- ? Why are broilers important to Virginia's economy? (*highest revenue of all agricultural products*)
- Click on the layer's name, Chickens (broilers), and select the legend icon.
- ? What do you observe? (*many locations, most of the symbols are under 250,000 chickens*)
- ? Where is chicken production concentrated? (*around Harrisonburg, central Virginia, and the Eastern Shore*)
- Select the Bookmark for Accomack County.
- ? How do the symbols differ from the western part of the state? (*Accomack has fewer symbols, but more in the > 400,00 category*)

How can you use clustering to make comparisons?

- ➔ Select the Bookmark, Rockingham, County. Click the layer name, Chickens (broilers), and select Cluster Points from the tools below the layer's name. Check Enable Clustering and move the slider all the way to the right. (See the *Tooltip* below)
- ➔ Click the symbol west of the city of Harrisonburg and view its pop-up.
- ? How many features (farms) does it represent? (51) What is the average number of chickens on those farms? (72,462)
- ➔ With clustering still enabled, select the Bookmark for Accomack.
- ? How many farms does the largest symbol in southern Accomack country represent? (6 farms) What is the average number of chickens on those farms? (219,369)
- ➔ Uncheck Enable Clustering. Click OK. Uncheck the Chickens (broilers) layer and then check the More than 200,000 Chickens layer. Use Bookmarks to compare both counties.
- ? What conclusion can you draw? (*Accomack County has fewer chicken farms, but has more chickens per farm.*)

Act

How does agriculture contribute to Virginia's economy?

- ➔ Check the Market Value Agriculture layer and uncheck all other layers. Examine the legend.
- ? What is the highest market value? (over 795 million) What do you think is produced there? (broilers)
- ? Which county or city with agricultural production above \$31,800 thousands is located near your school? How many farms does it have? (answers will vary)
- ➔ Check the Export Destinations. Click the Export Destinations layer, select the three dots, and then Zoom to.
- ? Which countries are the major purchasers of Virginia's farm exports? (Canada, China, and Switzerland)
- ? What agricultural products do you think they purchase? (answers will vary, student choices should include some of products identified in the Map Notes)
- ? How do food exports affect Virginia's economy? (overseas markets increase revenue and spur production)

CLUSTERING	IDENTIFY FEATURES
- Click the layer's name in side panel. - Select the clustering tool. - Move the slider to the right or left to choose a setting. - Uncheck Enable Clustering to return to the original view.	- Click a feature on the map, and a pop-up window will open with information. - Links and images in the pop-up are often clickable. - An arrow icon in the upper right of the window indicates that multiple features are available. - Click the arrow to scroll through the features.

Next Steps

DID YOU KNOW? ArcGIS Online is a mapping platform freely available to U.S. public, private, and home schools as a part of the White House ConnectED Initiative. A school subscription provides additional security, privacy, and content features. Learn more about ArcGIS Online and how to get a school subscription [at http://connected.esri.com](http://connected.esri.com).

THEN TRY THIS . . .

- Use the County layer and the Summarize Within analysis tool to count the number of wineries by county.
- Create a StoryMap about one of Virginia's agricultural products and its production.

Send feedback to: vageoinquiries@gmail.com

Additional materials at <https://php/radford.edu/~vga>

Learn more about Virginia's people and places in *An Atlas of Virginia*

Virginia GeoInquiries are available to the public at no cost, and were made possible with support from the Virginia Geographic Alliance and Esri.



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