

Taste New York

Lesson Summary: In this lesson, students will learn about New York State Agriculture. The lesson will focus on the various crops grown in NYS and the livestock produced that is invaluable for the state's economy. By the end of the lesson, students will have gained a better understanding of New York States agriculture and where certain products are grown and produced, with an emphasis on Niagara County. Students will also sample various products grown and produced in New York State.

Objectives:

Students will be able to:

- Identify multiple agriculture products that are grown or produced in NYS.
- Identify multiple agriculture products that are grown or produced in Niagara County.
- Learn how various fruits and vegetables are grown (vine, tree, ground).
- Sample/try new or different fruits, vegetables or products from NYS and Niagara County.

Time Required:

35-40 minutes

Background Information:

New York is an Agricultural State. Agriculture is important to New York State. The value of agricultural production was over \$5.70 billion in 2012. About 23% of the state's land area, or 7.00 million acres are used by the 36,000 farms to produce a very diverse array of food products. Here are some of the items in which New York ranks high nationally.

Livestock Products- Dairy and animal production in New York provided \$3.0 billion value of production to farmers in 2012.

Milk Production- Milk is New York's leading agricultural product and is produced all across the state. Milk sales account for one-half of total agricultural receipts. Production in 2012 was 13.2 billion pounds with a preliminary value of \$2.56 billion. New York is the nation's 4th leading producer.

Meat Production- New York livestock producers marketed 295 million pounds of meat animals during 2012 bringing in \$333 million in cash receipts.

Poultry Production- The combined value of eggs and the value of sales for chickens was \$93.7 million for 2012. New York ranks 22nd among all egg producing states in value of production.

Crop Production- Field crops, fruits and vegetables returned \$2.70 billion to New York farmers in 2012.

Fruits- The value of New York's 2012 tree fruit, berry and grape crops totaled \$323 million, down 6 percent from the 2011 value.

Apples- New York ranks 2nd nationally with production worth about \$249.8 million in 2012. Three general areas produce most of the apples: along the southern Lake Ontario shore, along the Hudson Valley, and along the upper Lake Champlain Valley.

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Grapes- Wine and juice grape production place New York 3rd behind California and Washington. The crop value is estimated at \$52.3 million in 2012. Grapes utilized for juice accounted for 62 percent of the total grapes utilized with 36 percent going for wine and 2 percent for fresh market. The four major producing areas are Lake Erie area, the Finger Lakes, the Hudson Valley and the eastern end of Long Island.

Tart Cherries- Production in New York ranks 5th in the Nation. Production in 2012 totaled 2.7 million pounds with a value of \$2.84 mill.

Pears- Production ranked 4th in the nation with 3,100 tons and had a value of \$2.35 million.

Strawberries- Strawberries are the 3rd most valuable fruit in New York and places New York 8th in national production. Growers harvested 3.20 million pounds in 2012. The crop was worth \$6.88 million to growers.

Vegetables- The value of vegetable production totaled \$450 million in 2012. The value of fresh market vegetable production ranks 5th among all states. Leading crops in New York are cabbage, sweet corn and onions.

Cabbage- New York produced the largest crop of cabbage in the Nation. Cabbage is principally grown south of Lake Ontario in Monroe, Genesee, Orleans, Ontario, and Niagara counties. New York cabbage is typically stored for sale as fresh during winter months. Value of the fresh market crop in 2012 totaled \$106 million.

Sweet Corn- Produced statewide, sweet corn had a value of \$68.4 million. Concentrations are found in the Lower Hudson Valley and around the Genesee Valley. Production of fresh market sweet corn crop ranked 4th in the nation.

Onions- An important crop with value of sales of \$46 million in 2012. Onions are grown in New York's muck soils in Orange, Orleans, Oswego, Madison and Wayne counties. The state ranked 5th in production for 2012.

Snap Beans- Snap beans are grown in the Central and Western regions for fresh and processing. The 2012 fresh market and processing crop was valued at \$52.2 million. Fresh production accounted for 64 percent of the total value. New York ranks 4th in fresh market production.

Other Vegetables

Tomatoes: \$47.2 million, 4th nationally; Pumpkins: \$33.0 million, 1st nationally;

Cucumbers: \$25.8 million, 4th nationally; Squash: \$41.2 million, 2nd nationally;

Cauliflower: \$4.29 million, 3rd nationally

Field Crops- New York produces a variety of field crops largely in support of its dairy industry. Corn, soybeans and wheat are most widely grown. New York ranks 3rd in corn silage production with a value of \$532 million. Grain corn ranked 21st in production and was worth \$688 million. Soybeans were valued at \$195 million. The state placed 8th in oat production, 34th in wheat and 23rd for soybean production. Hay value of production put New York 22nd and was valued at \$386 million in 2012. Most hay is used on farms and its value is realized through the sale of milk and livestock. Potato production reached a value of \$64.4 million in 2012 and made New York the 14th leading producer.

Maple Syrup- At \$15.7 million, New York ranks 2nd behind Vermont in value. New York also ranks 2nd behind Vermont in 2012 production with 360,000 gallons.

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Floriculture Crops- In 2012, New York floriculture products were valued at \$169 million. Bedding and garden plants top the list of commodities. The wholesale value of New York's floriculture output ranks 9th nationally. A variety of crops are produced in 25.2 million square feet of covered area and on 607 acres of open ground.

Niagara County Agriculture:

Niagara County has a significant agricultural presence in New York State with over 860 farms on over 142,000 acres of land across the county. Niagara County ranks 1st among NYS counties in peaches, sweet cherries and plums/prunes; 2nd in tart cherries and pears; and 5th in apple and berry production. Niagara County is also fortunate to have a significant number of farms offering direct-consumer sales of fresh agricultural products, making it 5th in the state in farm-based markets.

Materials:

- Taste NY Poster
- Map of NYS
- Pick Niagara Map
- Color New York Coloring Sheets (younger students)
- Taste Testing Worksheet
- Food samples
- Napkins, plates, cups, knives etc.

Procedures:

1. Before the lesson, prepare food samples.
2. Introduce students to the top ten agriculture products grown or produced in NYS. Using the Taste NY Poster, ask students what the top 10 foods they think are grown or produced in New York State. If the item the students mentioned is one of the Top 10 products, put the corresponding card in its place. If not, list the product on the board. If a student gets one of the products correct, provide them with additional information about the product that is listed below.
 - I. **Milk:**
 - i. Ask students: What products are made from milk? Where does milk come from?
 - ii. Milk is New York's leading agricultural product and is produced all across the state. Milk sales account for one-half of total agricultural receipts. Production in 2012 was 13.2 billion pounds with a preliminary value of \$2.56 billion. New York is the nation's 4th leading milk producer. Milk is produced from cows. Milk is used to make a variety of different items such as cheese, yogurt, and cottage cheese. One cow gives enough milk for 10 families to have a ½ gallon of milk every day.

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II. Apples:

- i. Ask students: Can anyone name a variety of apple. What do apples grow on?
- ii. New York ranks 2nd nationally with production worth about \$249.8 million in 2012. Three general areas produce most of the apples: along the southern Lake Ontario shore, along the Hudson Valley, and along the upper Lake Champlain Valley. There are many varieties of apples including: 20 Ounce, Cameo, Cortland, Crispin, Empire, Fuji, Gala, Ginger Gold, Golden Delicious, Honeycrisp, Jonagold, Jona Mac, Jersey Mac, Macoun, McIntosh, Paula Red, Red Delicious, Rome, Rubyfrost, Snapdragon, Zestar. Apples are grown on trees.

III. Grapes:

- i. Ask students: Grapes are used to produce what products? What do grapes grow on?
- ii. Wine and juice grape production place New York 3rd behind California and Washington. The crop value is estimated at \$52.3 million in 2012. Grapes utilized for juice accounted for 62 percent of the total grapes utilized with 36 percent going for wine and 2 percent for fresh market. The four major producing areas are Lake Erie area, the Finger Lakes, the Hudson Valley and the eastern end of Long Island. Grapes are used for wine, grape juice, jam and jelly. Concord grapes make very food jelly. New York has many Concord vineyards. Grapes grow on vines.

IV. Tart Cherries:

- i. Ask students: What do cherries grow on?
- ii. Production in New York ranks 5th in the Nation. Production in 2012 totaled 2.7 million pounds with a value of \$2.84 mill. Cherries grow on trees.

V. Pears:

- i. Ask students: What do pears grow on? Can anyone name a type of pear?
- ii. Production ranked 4th in the nation with 3,100 tons and had a value of \$2.35 million. Pears grow on trees. Types of pears: Bartlett, Asian, Bosc, Anjou.

VI. Strawberries:

- i. Ask students: What do can you make from strawberries (jams, jellies, pie, ice cream, etc.)
- ii. Strawberries are the 3rd most valuable fruit in New York and places New York 8th in national production. Growers harvested 3.20 million pounds

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in 2012. The crop was worth \$6.88 million to growers. Strawberries grow on strawberry plants.

VII. **Cabbage:**

- i. New York produced the largest crop of cabbage in the Nation. Cabbage is principally grown south of Lake Ontario in Monroe, Genesee, Orleans, Ontario, and Niagara counties. New York cabbage is typically stored for sale as fresh during winter months. Value of the fresh market crop in 2012 totaled \$106 million.

VIII. **Sweet Corn:**

- i. Produced statewide, sweet corn had a value of \$68.4 million. Concentrations are found in the Lower Hudson Valley and around the Genesee Valley. Production of fresh market sweet corn crop ranked 4th in the nation. Sweet corn is grown on stalks planted in the ground.

IX. **Onions:**

- i. An important crop with value of sales of \$46 million in 2012. Onions are grown in New York's muck soils in Orange, Orleans, Oswego, Madison and Wayne counties. The state ranked 5th in production for 2012. Onions are grown in the ground.

X. **Maple Syrup:**

- i. At \$15.7 million, New York ranks 2nd behind Vermont in value. New York also ranks 2nd behind Vermont in 2012 production with 360,000 gallons. Maple syrup is made from the sap from a maple tree. It takes 40 gallons of sap to make 1 gallon of maple syrup.

3. Mention to students that these are the ten most common items, but there are many other fruits and vegetables that are grown in NYS along with livestock, field crops and honey.
4. Mention to students the common agriculture products that are grown and produced in Niagara County:
 - I. Niagara County ranks 1st among NYS counties in peaches, sweet cherries and plums/prunes; 2nd in tart cherries and pears; and 5th in apple and berry production. Other products include various vegetables such as sweet corn, peppers, pumpkins, squash, carrots, melons, asparagus, beans, beets, broccoli, cauliflower, cucumbers, eggplant, onions, lettuce, peas, potatoes, radishes, tomatoes, etc.
5. Introduce the Activity:
 - I. Ask students:
 - i. Do you eat many different kinds of food each day?
 - ii. Do you eat many different fruits and vegetables each day?

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- iii. Do you like to try new fruits or vegetables? Why or why not?
- iv. Is it important to eat different fruits and vegetables? Why or why not?
- II. Brainstorm words to describe fruits and vegetables. This will help students complete their worksheet. Review the definition of an adjective and brainstorm adjectives that can be used to describe the taste, smell, feel, etc. of the food products children are sampling. (Examples may include sweet, sour, tart, crisp, crunchy, mushy, tangy, bitter, ripe, etc.).
- III. Introduce the Taste Testing Activity:
 - i. Make sure students wash their hands.
 - ii. Talk with students about the steps to make sure a fruit or vegetable is safe to eat. Explain that the fresh fruits and vegetables were washed, even those with a peel.
 - iii. Set ground rules for the activity. Ask students to not make any negative comments or faces if they taste something they don't like. Allow them permission to quietly and politely remove food from their mouths with a napkin. This encourages children to try something new without fear.
 - iv. Read aloud the directions for the taste testing worksheet. In the first column, draw or write the name of the item you are tasting. For the second column, circle if it is fruit, vegetable or other. Under the taste column, circle if you thought it was bitter, sour, sweet or salty. Bitter is a sharp, tart not sweet, acidic taste. Sour is acidic like and may taste similar to lemon or vinegar. In the last column, have students circle whether they liked, disliked or was in between about the item they tasted.
 - v. Tell students what foods they will be taste testing today:
 - 1. Bring in four to five different products made or produced in Niagara County or New York State that students can try.
Examples: local maple syrup or jams, apples, berries, grapes, corn, squash, melons, cabbage, milk, cheese, etc.
 - 2. ***If out of season, bring in products that students may not normally have tried before. Examples include: artichokes, avocados, asparagus, Bok Choy, cantaloupe, dried fruit, eggplant, figs, grapefruit, melon (cantaloupe, honeydew), jicama, kiwifruit, kumquats, lychee, mango, red cabbage, papaya, passion fruit, pears, persimmon, quince, radishes, bell peppers (yellow, orange, red), rhubarb, rutabaga, squash (spaghetti, summer, winter), sugar snap peas, sweet potatoes, tamarind, water chestnuts, zucchini.

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- vi. Distribute one food at a time to each student. Allow each student to have a cup of water. Allow time in between each item for the students to fill out their worksheet.
- IV. Review the activity by leading a discussion on the foods the students tried:
- i. Did you try a fruit, vegetable or other item that you have never tried before?
 - ii. Were you surprised by the way it tasted?
 - iii. Will you eat this fruit or vegetable more often in the future? Why or why not?
 - iv. Do you usually have fruits and vegetable that you like at home?
 - v. Will you ask someone at home to buy any of the fruits or vegetables that we tasted today? Why or why not?
 - vi. What did we do to make sure that the food we tasted today was safe to eat?

Assessment:

Taste testing worksheet

Supporting Materials:

http://www.agriculture.ny.gov/f2s/documents/FF_FF_Brochure_2010.pdf

References/Resources:

Pick Niagara Map