



October: 9-12

Is it a Fruit or a Vegetable?



South Carolina

Farm to School Lessons

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Overview

Welcome to the South Carolina Farm to School October Agriculture Education Lesson! This lesson contains information & hands on activities for teaching grades 9-12 about the *Certified South Carolina Grown Program* & the *differences between fruits & vegetables*.

These lessons are designed to be delivered over a four week period, noting that introduction & activities will be supplemental to existing curriculum. Each activity of this lesson is approximately 15 minutes.

Estimated Total time: 1 hour 30 minutes

Teacher Background

What is Certified South Carolina Grown Program?



The Certified South Carolina Grown program is a new, exciting cooperative effort among producers, processors, wholesalers, retailers & the South Carolina Department of Agriculture (SCDA) to brand & promote South Carolina products. South Carolina products include a wide variety of fruits & vegetables that will be promoted throughout the Farm to School educational lessons. In order to support the Certified South Carolina Grown program our primary goal is to educate children on identifying fruits & vegetables with the Certified South Carolina Grown logo. The Certified South Carolina Grown logo

signifies first quality products, grown in South Carolina that meet the U.S. #1 Quality Grade Standards, or higher U.S. Grade Standards, whichever is the accepted USDA industry grade standard for the commodity. One of the main benefits of including this program in the farm to school lessons is that children & their families will be able to easily identify, find & buy South Carolina fruits & vegetables.

Now is the time to look for the Certified South Carolina Grown logo in the supermarket, roadside market, community or state farmers market. For more information about this program visit <http://agriculture.sc.gov>.

Vocabulary Used in Background Information Sheet

botanic	having to do with a branch of biology dealing with plant life
cardiovascular	of, relating to, or involving the heart & blood vessels
commodity	a product of agriculture or mining
coronary heart disease	a condition & especially one caused by atherosclerosis that reduces blood flow through the coronary arteries to the heart & typically results in chest pain or heart damage
duty	a tax on imports
fruit	the usually edible reproductive body of a seed plant, especially one having a sweet pulp associated with the seed; a succulent plant part used chiefly in a dessert or sweet course
importer	one who brings (as merchandise) into a place or country from another country
government entity	a government organization that has an identity separate from those of its members
maintenance	support or provision for something
nutrition	the act or process of nourishing or being nourished

ovary	the enlarged rounded usually basal portion of the pistil or gynoecium of an angiospermous plant that bears the ovules & consists of one or more carpels
statistics	a branch of mathematics dealing with the collection, analysis, interpretation, & presentation of masses of numerical data
tariff	a schedule of duties imposed by a government on imported or in some countries exported goods
type 2 diabetes	a common form of diabetes mellitus that develops especially in adults & most often in obese individuals & that is characterized by hyperglycemia resulting from impaired insulin utilization coupled with the body's inability to compensate with increased insulin production
vegetable	a usually herbaceous plant (as the cabbage, bean, or potato) grown for an edible part that is usually eaten as part of a meal

Lesson Checklist



F2S Objectives:

At the end of the lesson students will be able to:

- * Identify the "Certified South Carolina Grown" promotional program.
- * Understand & recognize the differences between fruits & vegetables (fresh produce).
- * Classify fruits & vegetables they eat according to agriculture (plant parts) & nutrition (nutrients & benefits) points of view.
- * Prepare a fruit snack using the Palmetto Pick of the month (apples).



Materials:

- * Certified SC Grown Program Logo (Appendix A)
- * SC Fruits & Vegetables Explorations worksheet (Appendix B)
- * Fruits & Vegetables Background information (Appendix C)
- * SC Fruits & Vegetables Sheet (Appendix D)
- * USDA's National Agricultural Statistics Service (NASS) (Appendix E)
- * USDA's Center for Nutrition Policy & Promotion (CNPP) (Appendix F)
- * Apple Fact Sheet (Appendix G)
- * Power Point Slide (sent electronically)
- * Apple Seed Video (sent electronically)
- * Garden Based Learning video (sent electronically)
- * Taste testing ingredients/tools: Apples, water, cinnamon, sugar, knives, cutting board & blender



National Health Education Standards (NHES)

2.12.2	2.12.4	2.12.5	3.12.1	3.12.2
3.12.3	3.12.5	4.12.4	5.12.2	8.8.3
8.8.4				

SC State Standards

E2-2.1	Compare & contrast information within & across texts to draw conclusions & make inferences.
E2-2.7	Analyze propaganda techniques in informational texts.
E2-2.8	Read independently for extended period of time to gain information.
E2-3.1	Use context clues to determine the meaning of technical terms & other unfamiliar words.
E2-4.3	Create multiple-paragraph compositions that have an introduction & a conclusion, include a coherent thesis, & use support (for example, definitions & descriptions).
E2-5.3	Create descriptive pieces (for example, personal essays, travel writing, or restaurant reviews) that use sensory images & vivid word choice.
E2-6.1	Clarify & refine a research topic
E2-6.2	Use direct quotations, paraphrasing, or summaries to incorporate into written, oral, auditory, or visual works the information gathered from a variety of research sources.
E2-6.4	Use vocabulary (including Standard American English) that is appropriate for the particular audience or purpose.
E2-6.5	Create written works, oral & auditory presentations, & visual presentations that are designed for a specific audience & purpose.
E2-6.7	Use a variety of print & electronic reference materials.
E2-6.8	Design & carry out research projects by selecting a topic, constructing inquiry questions, accessing resources, evaluating credibility, & organizing information.
PS-1.3	Use scientific instruments to record measurements data in appropriate metric units that reflect the precision & accuracy of each particular instrument.
PS-1.5	Organize & interpret the data from a controlled scientific investigation by using mathematics (including formulas & dimensional analysis), graphs, models &/or technology.

Lesson Essential Components

Lessons profile	Page(s)	Yes	No	Notes
Palmetto Pick of the Month	7	★		Recipe, Fact Sheet
Health Education Standards	6-7	★		
SC-Cross Curricular Standards	6-7	★		
SC-F2S Behavioral Goals	6-7	★		
Cooking Activities	7	★		
Tasting Activities	7	★		
Physical Activity			★	
Food Safety	7	★		
School Food Garden	7	★		Development of Garden Journal
Student to Farmer Connections (i.e. field trips, talks)	6	★		
Student to Chef Connections			★	
Farm to Cafeteria			★	
Provision of scientific knowledge/rationale	6-7	★		
Risks & benefits of healthy behaviors			★	
Obstacles, Barriers & Solutions			★	
Family involvement & other supports	5	★		Family Activity Letter, recipes
Set goals & monitor progress			★	
Other hands on activities:	6-7	★		

Let's Learn!

Let's buy SC Fresh Produce!

Estimated Time: 20 mins¹

1. Prior to this class, obtain SC fruits & vegetables (F&V) from a local food store &/or local farmer (tomatoes, peaches, celery, apples, lettuce). Preferably, the store, farmers' market &/ or farm should be near your school & supported by the "Certified South Carolina Grown" promotional program.
2. Set out the F&V so the students can see them clearly. Use the **"Certified South Carolina Grown" logo** (Appendix A) to indicate that the fruits & vegetables are from South Carolina.
3. Ask students if they are familiar with the "Certified South Carolina Grown" promotional program, which is developed & sponsored by the South Carolina Department of Agriculture. Ask students to speculate on what they think this program is. Give a brief explanation of the services provided by the SCDA & the function of the program. Use the web site address to obtain additional information on the program (<http://agriculture.sc.gov>).

Note: Remember, that you can use the Farm to School grant funds to purchase the F&V required for this lesson; or if you prefer not to purchase F&V you may use the power point that will be sent electronically with this lesson. Additionally, if you need assistance identifying places to purchase SC fruits & vegetables, feel free to contact your regional coordinator.

Activity

Exploring differences between fruits & vegetables?²

Estimated Time: 20 mins

1. Hand out the **SC Fruits & Vegetables Explorations** worksheet (Appendix A).
2. Ask students to write in their worksheet what they already know about F&V (questions 1 & 2).
3. Then, have the students observe/explore the F&V you purchased from a local store. Encourage them to use all of their senses, including taste. Have students

record their findings on the **SC Fruits & Vegetables Explorations** worksheet (Appendix B).

4. Ask volunteers to share their observations. Accept all answers. Encourage discussion, questions & debate among the students.
5. Hand out the **Fruits & Vegetables Background information** (Appendix C). Challenge students to find additional information from the internet or from their school media center to discover something they did not know about F&V. The research can be done in small groups or individually & turned in for assessment purposes. Have students record their findings on the **SC Fruits & Vegetables Explorations** worksheet (Appendix B).

Activity

Which is it?

Estimated Time: 20 mins

1. Hand out the **SC Fruits & Vegetables** (Appendix D) worksheet.
2. Have students write down whether the food listed is a fruit or vegetable in the first column.
3. Separate the class into two groups. Group 1 will receive a copy of the **USDA's National Agricultural Statistics Service (NASS)** sheet (Appendix E) for Fruits & Vegetables. Group 2 will receive a copy of **USDA's Center for Nutrition Policy & Promotion (CNPP)** sheet (Appendix F).
4. Have the students identify how their respective USDA agency categorizes the foods listed on the **SC Fruits & Vegetables** (Appendix D) worksheet.
5. Have each group present to the class their findings & then discuss as a class which foods are listed differently & what foods on each list have in common.

★ Palmetto Pick Activity

Cooking Activity & Taste Test

Estimated Time: 20 mins

Using the **Apple Fact Sheet** (either on Smart Board or copy & hand out to students), discuss the different varieties of apples.

- Have the students heard of each variety?
- How many varieties have they tried?

In addition, you can play the *Apple Seed* video (1:10 mins) while you prepare apple sauce. Video will be sent electronically & can also be found at <http://www.nourishlife.org/videos/apple-seed/>.

The **Apple Fact Sheet** (Appendix G) lists the different tastes of the varieties of apples. For the taste test activity, consider using different varieties of apples (maybe two or three) so students can taste the difference in the varieties.

1. Make applesauce to demonstrate a healthy snack the students can make at home. This is also a great way to have a mini-taste test in class.
2. Have students wash their hands (with soap, with warm water for 20 seconds) & reinforce that it is important. Show the students that you have washed the apples before beginning.
3. Discuss the taste, texture, & healthy ingredients used in the applesauce. Discuss how this is a simple, easy, & fast alternative snack or desert. While preparing the applesauce, discuss briefly the Farm that provided your fresh SC apples. (Regional Coordinators can provide this information.)
4. Remind students that this is a great recipe to do at home with their parents.

Ingredients:

6 large apples
 3/4 cups of water
 Cinnamon to taste
 Sugar to taste

Directions:

- Peel, core, & cut apples into chunks (the students could help cut the apples).
- Put water & a few chunks of apples in blender.
- Blend mixture & add remaining apple pieces.
- Add sugar & cinnamon to taste.

Servings: 6

Source: http://www.eartwiggles.com/Recipes/Apple_kids_recipes.html

★ Gardening Activity

Garden Thoughts

Estimated Time: 10 mins

1. Tell the students that as part of the Farm to School Program your school will initiate or revitalize a school garden.

2. You can play the *Garden Based Learning* video (3:04mins). This video will allow students to view an example of a school garden. This video can also be a starting point to discuss how your students would like to participate in their school garden. Video will be sent electronically & can also be found at <http://vimeo.com/11710904>

3. To conclude this activity, ask to your students to create a gardening journal. They will need only one small notebook, a pencil, & a ruler.

4. Suggest to the students to use this journal to chart plant growth (weekly measurement from germination until harvest), write essays, record type of seeds, record weather, draw pictures, add pictures, etc.

Evaluation

Formal Assessment:

1. Review the “**SC Fruits & Vegetables Explorations**” worksheet & the “**Fruit or Vegetable**” worksheet & discuss the differences & similarities in classifying fruits & vegetables.
2. Review the Gardening Journal

Informal Assessment: Observe participation in lesson activities. Complete survey at end of month (survey will be sent electronically).

¹ Adapted from South Carolina Ag in the Classroom Curriculum, SC Farm Bureau Federation.

² Adapted from Koch PA, Calabrese A, Contento IR. Farm to table & beyond. Grades 5 or 6. Teachers College Columbia University & the National Gardening Association. 2008 (1):38-59.

Resources



Books:

- For finding pictures of F&V & for promoting visits to the local farmers' market: The book titled "A Visit to the Farmers' Market" by Peggy Sissel-Phelan.
- For gardening based learning: The book titled: "The Growing Classroom" by Roberta Jaffe & Gary Appel

Websites:

- For information of the SC Certified Grown Program: <http://agriculture.sc.gov>
- For information of gardening: <http://www.gardeningwithkids.org/> & <http://agriculture.sc.gov/content.aspx?ContentID=789>
- Clemson University Nutrition Education & Information Resource Center: <http://virtual.clemson.edu/groups/NIRC/>

Others:

- To initiate or revitalize your garden you can contact your Agriculture Farm to School Regional Coordinator or you can also contact your community resources such as the Clemson Extension office.



Appendix A
SC Grown Logo



Appendix B
SC Fruits & Vegetables Explorations Worksheet

Name:

Date:

Answer the following questions:

1. What do you already know about fruits?

2. What do you already know about vegetables?

3. Look at the fruits & vegetables very closely & record some of your new observations.

4. Choose one fruit & one vegetable. Make a drawing of the selected fruit & vegetable & what you observe from each of them.

Fruit	Vegetable

4. Based on what you already know about fruits & vegetables & what you have learned from your observations & literature review (i.e. from internet, school media center &/or the fruits & vegetables background information handout) write a research paper about the nutrition & agriculture differences that exist between fruits & vegetables.

Appendix C

Fruit & Vegetable Background Information

Confusion over what is a fruit & what is a vegetable is not new. In scientific terms the fruit is the part of the plant that develops from the ovary in the base of the flower & contains the seed of the plant. By that definition, many of the foods we commonly call vegetables are actually fruits, including squash & cucumber. The problem is that vegetable is not a botanical category like fruit. The dictionary definition of vegetable is “a usually herbaceous plant grown for an edible part.” By that definition, all the fruits we eat are also vegetables.

In the late 19th Century, US tariff laws imposed a duty on vegetables but not on fruits. Importers of tomatoes argued that since tomatoes are actually a fruit, they should not be subject to the tax. In 1893 the US Supreme Court settled the matter by declaring the tomato a vegetable, using the popular definition which classifies vegetable by use. Since tomatoes are generally served with dinner & not dessert, the court reasoned, it should be classified as a vegetable. The case is known as *Nix v. Hedden* (149 U.S. 304). While the tomato can be classified botanically as a fruit, it is officially categorized as a vegetable in the United States.

For purposes of counting, the US Department of Agriculture (USDA) classifies certain foods differently. In the national agricultural census, conducted by the USDA's National Agricultural Statistics Service (NASS), watermelons are counted as vegetables. NASS also counts strawberries as vegetables. Apples, pears, cherries, peaches, plums & grapes are counted as fruits. Strawberries are counted as fruits only if they are used in production.

For nutrition purposes, the USDA lists fruits & vegetables the way most people think of them. The USDA's Center for Nutrition Policy & Promotion (CNPP) lists watermelon & strawberries as fruits. Squash, cucumbers & tomatoes are listed as vegetables.

No matter how you categorize them, nutrition experts agree that fruits & vegetables provide nutrients that are vital for health & maintenance of your body. People who eat fruits & vegetables as part of an overall healthy diet are likely to have a reduced risk of diseases such as cardiovascular disease, type 2 diabetes, certain cancers, & coronary heart disease. Vegetables & fruits are also low in calories & high in fiber. Eating them instead of higher calorie food can be helpful in lowering calorie intake & maintaining a healthy weight. Fiber is beneficial in keeping the muscles of the digestive tract strong & removing waste from the body.

To nutrition experts a more important way to categorize fruits & vegetables is by their color. Some possible benefits, by color, are listed below:

Red—May help fight some cancers; helps fight colds; helps keep the heart healthy & helps us see at night.

Orange—May help fight colds; aids in developing a healthy heart; may help prevent cataracts.

Yellow—May help prevent hypertension.

Green—May help fight some cancers; helps us see at night.

Purple & Blue—May help fight some cancers; may help with memory & maintain urinary tract health.

White, Tan & Brown—Promote heart health & reduce cancer risk.

Source: Adapted from Oklahoma Ag in the Class

Appendix D SC Fruits & Vegetables

Write what you think in the first blank column, then use the charts provided by your teacher to determine how they are categorized by two government agencies.

Food	Hypothesis (F or V?)	USDA - NASS	USDA - CNPP
apple			
asparagus			
beets			
butter beans			
collards			
snap (green beans)			
broccoli			
cabbage			
cantaloupe			
carrot			
corn			
cucumber			
muscadine grape			
blueberry			
onion			
peach			
pepper			
sweet potatoes			
peanuts			
squash			
strawberry			
tomato			
watermelon			

Source: Adapted from Oklahoma Ag in the Class

Appendix E USDA's-NASS

Table 34. Vegetables, Potatoes, and Melons Harvested for Sale: 2007 and 2002

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	2007						2002	
	Total harvested		Harvested for processing		Harvested for fresh market		total harvested	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
Vegetables harvested for sale (see text) ¹	1,520	28,275	131	3,303	1,480	24,971	1,046	30,362
0.1 to 0.9 acres	275	114	17	5	269	(D)	138	(D)
1.0 to 4.9 acres	744	1,522	61	82	723	1,441	405	903
5.0 to 14.9 acres	308	2,330	28	85	304	2,245	243	1,992
15.0 to 24.9 acres	54	1,001	6	15	54	986	67	1,215
25.0 to 49.9 acres	68	2,138	4	52	67	2,086	89	3,032
50.0 to 99.9 acres	27	1,886	3	(D)	27	(D)	52	3,438
100.0 to 249.9 acres	28	4,277	6	685	23	3,592	31	4,722
250.0 to 499.9 acres	8	2,704	4	1,480	5	1,224	10	3,294
500.0 to 749.9 acres	1	(D)	1	(D)	1	(D)	1	(D)
750.0 to 999.9 acres	2	(D)	2	(D)	2	(D)	5	4,259
1,000.0 acres or more	5	9,982	-	-	5	9,982	5	6,808
Asparagus, bearing age (see text)	5	(D)	-	-	5	(D)	13	(D)
Beans, green limas	69	798	5	(D)	65	(D)	58	1,284
Beans, snap	449	1,103	32	136	423	967	277	1,228
Beets	6	(D)	-	-	6	(D)	2	(D)
Broccoli	23	(D)	2	(D)	21	(D)	5	(D)
Brussels sprouts	1	(D)	-	-	1	(D)	-	-
Cabbage, Chinese	13	4	-	-	13	4	3	2
Cabbage, head	72	172	4	2	68	171	38	356
Cantaloupes	346	1,698	-	-	346	1,698	305	1,516
Carrots	4	1	-	-	4	1	1	(D)
Cauliflower	3	1	-	-	3	1	-	-
Collards	125	2,377	6	(D)	122	(D)	90	2,011
Cucumbers and pickles	396	2,035	25	941	378	1,093	267	4,858
0.1 to 0.9 acres	304	71	11	3	296	68	166	42
1.0 to 4.9 acres	67	132	7	16	62	115	49	74
5.0 to 14.9 acres	10	80	-	-	10	80	13	81
15.0 to 24.9 acres	2	(D)	-	-	2	(D)	3	54
25.0 to 49.9 acres	2	(D)	2	(D)	1	(D)	16	556
50.0 to 99.9 acres	3	220	-	-	3	220	7	492
100.0 to 249.9 acres	6	762	4	(D)	3	(D)	(NA)	(NA)
250.0 to 499.9 acres	2	(D)	1	(D)	1	(D)	(NA)	(NA)
500.0 acres or more	-	-	-	-	-	-	(NA)	(NA)
Eggplant	34	40	1	(D)	34	(D)	11	123
Escarole/Endive	3	(D)	-	-	3	(D)	-	-
Garlic (see text)	4	5	2	(D)	4	(D)	5	6
Herbs, fresh cut	12	(D)	(X)	(X)	12	(D)	7	(D)
Honeydew melons	7	5	-	-	7	5	-	-
Kale	10	(D)	-	-	10	(D)	13	178
Lettuce, all	16	13	(X)	(X)	16	13	7	38
Lettuce, head	5	8	(X)	(X)	5	8	-	-
Lettuce, leaf	8	4	(X)	(X)	8	4	6	(D)
Lettuce, romaine	3	1	(X)	(X)	3	1	1	(D)
Mustard greens	38	875	3	293	35	581	30	292
Okra	218	144	16	8	213	136	142	176
Onions, dry	13	9	-	-	13	9	12	(D)
Onions, green	30	(D)	2	(D)	28	(D)	13	(D)
Parsley	1	(D)	-	-	1	(D)	-	-
Peas, Chinese (Sugar, Snow)	5	2	-	-	5	2	3	6
Peas, green (excluding southern peas)	90	162	14	52	77	110	48	93
Peas, green southern (cowpeas) - blackeyed, crowder, etc	111	341	6	13	107	328	88	757
Peppers, Bell (excluding pimientos) (see text)	71	497	3	1	68	496	27	441
Peppers, other than Bell (including chile) (see text)	42	13	3	(Z)	39	13	26	79
Potatoes (see text)	226	154	6	2	222	152	77	305
Pumpkins	44	196	1	(D)	44	(D)	27	101
Radishes	5	(D)	2	(D)	3	(D)	1	(D)
Spinach	7	(D)	1	(D)	6	4	2	(D)
Squash, all (see text)	217	1,048	9	204	208	844	112	1,589
0.1 to 0.9 acres	162	43	(NA)	(NA)	43	(NA)	51	14
1.0 to 4.9 acres	38	62	(NA)	(NA)	(NA)	(NA)	32	51

See footnote(s) at end of table.

--continued

30 SOUTH CAROLINA

2007 CENSUS OF AGRICULTURE - STATE DATA

USDA, National Agricultural Statistics Service

Table 35. Specified Fruits and Nuts by Acres: 2007 and 2002

[Totals may not add due to rounding. For meaning of abbreviations and symbols, see introductory text]

Crop	Total		Bearing age acres		Nonbearing age acres	
	Farms	Acres	Farms	Acres	Farms	Acres
Noncitrus fruit, all (see text)	2007 630	17,495	551	14,827	216	2,667
2002 709		(D)	517	14,189	376	(D)
Apples	2007 205	566	143	482	84	84
2002 339		2,880	194	901	179	1,979
2007 acres:						
0.1 to 0.9 acres	121	41	82	28	42	13
1.0 to 4.9 acres	71	133	48	67	39	66
5.0 to 14.9 acres	9	80	9	75	3	5
15.0 to 24.9 acres	1	(D)	1	(D)	-	-
25.0 to 49.9 acres	1	(D)	1	(D)	-	-
50.0 to 99.9 acres	-	-	-	-	-	-
100.0 acres or more	2	(D)	2	(D)	-	-
2002 acres:						
0.1 to 0.9 acres	196	58	107	32	106	26
1.0 to 4.9 acres	102	185	57	87	55	98
5.0 to 14.9 acres	24	170	19	135	9	34
15.0 to 24.9 acres	5	104	5	83	3	21
25.0 to 49.9 acres	3	125	3	125	-	-
50.0 to 99.9 acres	-	-	-	-	-	-
100.0 acres or more	9	2,239	3	439	6	1,800
Apricots	2007 9	3	5	(D)	5	(D)
2002 14		2	3	(Z)	11	2
Cherries, sweet	2007 26	11	19	8	12	3
2002 9		(D)	4	(D)	5	1
Cherries, tart	2007 31	12	23	10	10	2
2002 10		1	1	(D)	9	(D)
Figs	2007 74	22	64	20	14	2
2002 25		8	13	3	12	5
Grapes	2007 258	463	218	387	72	77
2002 289		577	198	368	129	210
Kiwifruit	2007 6	11	5	(D)	1	(D)
2002 8		10	5	(D)	3	(D)
Nectarines	2007 32	33	17	31	16	3
2002 24		23	9	16	18	7
Peaches, all (see text)	2007 283	16,160	241	13,706	101	2,454
2002 380		15,069	248	12,747	207	2,321
2007 acres:						
0.1 to 0.9 acres	85	24	62	17	26	7
1.0 to 4.9 acres	87	155	74	123	23	33
5.0 to 14.9 acres	38	325	32	272	16	53
15.0 to 24.9 acres	23	424	23	383	8	41
25.0 to 49.9 acres	16	603	16	572	7	32
50.0 to 99.9 acres	15	1,063	15	941	5	122
100.0 acres or more	19	13,567	19	11,400	16	2,167
100.0 to 249.9 acres	7	976	7	830	6	146
250.0 to 499.9 acres	2	(D)	2	(D)	1	(D)
500.0 to 749.9 acres	3	1,701	3	1,362	3	340
750.0 to 999.9 acres	1	(D)	1	(D)	1	(D)
1,000.0 acres or more	6	(D)	6	7,810	5	(D)
2002 acres:						
0.1 to 0.9 acres	183	45	84	20	107	25
1.0 to 4.9 acres	66	133	41	81	34	52
5.0 to 14.9 acres	50	401	45	324	17	77
15.0 to 24.9 acres	20	350	18	239	13	111
25.0 to 49.9 acres	10	377	9	312	5	65
50.0 to 99.9 acres	24	1,621	24	1,539	12	82
100.0 acres or more	27	12,142	27	10,233	19	1,908
100.0 to 249.9 acres	13	1,960	13	1,737	8	223
250.0 to 499.9 acres	7	2,502	7	1,982	5	520
500.0 to 749.9 acres	2	(D)	2	(D)	2	(D)
750.0 to 999.9 acres	2	(D)	2	(D)	2	(D)
1,000.0 acres or more	3	4,570	3	(D)	2	(D)
Pears, all	2007 144	92	109	67	46	25
2002 191		117	106	73	101	43
Persimmons	2007 29	16	20	12	13	4
2002 16		28	6	2	11	27
Plums and prunes	2007 87	89	65	56	29	13
2002 150		113	76	70	89	43
Other noncitrus fruit (see text)	2007 33	37	30	(D)	3	(D)
2002 -		-	-	-	-	-
Citrus fruit, all	2007 4	6	2	(D)	2	(D)
2002 -		-	-	-	-	-
Other citrus fruit (see text)	2007 4	6	2	(D)	2	(D)
2002 -		-	-	-	-	-
Nuts, all (see text)	2007 660	4,683	547	3,855	187	829
2002 (NA)		(NA)	(NA)	(NA)	(NA)	(NA)
Almonds	2007 4	(D)	2	(D)	2	(D)
2002 2		(D)	-	-	2	(D)
Chestnuts (see text)	2007 22	21	13	(D)	10	(D)
2002 (NA)		(NA)	(NA)	(NA)	(NA)	(NA)
Hazelnuts (Filberts)	2007 5	(D)	1	(D)	4	(D)
2002 2		(D)	-	-	2	(D)

--continued

Appendix F
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Vegetables

Dark green vegetables	Red & orange vegetables	Beans & peas*	Starchy vegetables	Other vegetables
bok choy	acorn squash	black beans	cassava	artichokes
broccoli	butternut squash	black-eyed peas	corn	asparagus
collard greens	carrots	(mature, dry)	fresh cowpeas, field	avocado
dark green	hubbard squash	garbanzo beans	peas, or black-eyed	bean sprouts
leafy lettuce	pumpkin	(chickpeas)	peas (not dry)	beets
kale	red peppers	kidney beans	green bananas	Brussels sprouts
mesclun	sweet potatoes	lentils	green peas	cabbage
mustard greens	tomatoes	navy beans	green lima beans	cauliflower
romaine lettuce	tomato juice	pinto beans	plantains	celery
spinach		soy beans	potatoes	cucumbers
turnip greens		split peas	taro	eggplant
watercress		white beans	water chestnuts	green beans
				green peppers
				iceberg (head)
				lettuce
				mushrooms
				okra
				onions
				parsnips
				turnips
				wax beans
				zucchini

Fruits

Apples	Cherries	Nectarines	<i>100% Fruit juice:</i>
Apricots	Grapefruit	Oranges	orange
Bananas	Grapes	Peaches	apple
<i>Berries:</i>	Kiwi fruit	Pears	grape
strawberries	Lemons	Papaya	grapefruit
blueberries	Limes	Pineapple	
raspberries	Mangoes	Plums	<i>Mixed fruits:</i>
		Prunes	fruit cocktail
		Raisins	
		Tangerines	
<i>Melons:</i>			
cantaloupe			
honeydew			
watermelon			

Source: ChooseMyPlate.gov

Appendix G Apple Fact Sheet

Apple Varieties Recommended for Home Use in the Different Zones of South Carolina

Variety ¹	Area ²	Characteristics ³	Pollinati on Code ⁴
Anna	CP	Excellent-shape fruit with blush of red; ripens mid-June to early July; spur-type.	A
Dorsett Golden	CP	Yellow apple of good quality; ripens mid-June to early July; spur-type.	A
Jersey mac	M, P, SR	Very early red apple of excellent quality; good for fresh eating, sauce & pies; ripens in July; non-spur.	B
Ginger Gold	M, P, SR	Very early crisp yellow apple of excellent quality; good for fresh eating, sauce & pies; ripens late July to early August; non-spur. Susceptible to fireblight.	B
Gala	M, P, SR	Excellent quality apple; good for fresh eating or salads; ripens in early August; non-spur.	B
Priscilla	M, P, SR	Red skin color; crisp flesh; mildly sub-acid; excellent dessert quality; ripens late July to early August; non-spur.	C
Mollie's Delicious	M, P, SR	A versatile apple; good for fresh eating, pies & sauce; susceptible to fire blight; ripens in late July; non-spur.	B
Ozark Gold	M, P, SR	Matures late July to early August; yellow, russet-free apple of excellent quality; non-spur.	C
Red Delicious	All	Early fall variety ripening in late August; large, firm, crisp; sweet; good for fresh eating or salads; non-spur & spur strains available.	B
Golden Delicious	All	Early fall variety ripening in late August; large, firm, crisp; sweet; good for fresh eating or salads; non-spur & spur strains available.	C
Jonagold	M, P, SR	Ripens early September; very large, yellow apple with red blush; very high quality; sweet, juicy apple.	C
Fuji	M, P, SR	Fall variety ripening in early October; does not color well, but quality is superb; good for cooking, eating & baking; non-spur strains available.	B
Mutsu	M, P, SR	Ripens early October; yellow apple of exceptional quality; crisp & juicy; slightly tart; all-purpose.	B
Rome Beauty	M, P	Ripens early October; red apple primarily grown for baking; spur & non-spur.	C

Stayman	M, P	Ripens early October; rusty red finish; superb quality, tart, all-purpose apple; fruit-cracking a problem when dry period is followed by rainy period.	C
Arkansas Black	M, P	Fall variety ripening in October; very dark & red & very firm; great keeping; tart, juicy; good cooking, eating & baking; non-spur & spur strains available.	C
Yates	All	Late fall variety ripening in October; small, dark red; juicy; mellow, sub-acid; best keeper; non-spur.	B
Granny Smith	All	Matures in late September to early October; yellow-green apple of excellent quality; good all-purpose variety; non-spur & spur strains available; susceptible to fire blight.	B
<p>¹Listed in order of ripening.</p> <p>²Major land resource areas of South Carolina: M-Mountain; P-Piedmont; SR-Sandhills & Ridge; CP-Coastal Plain.</p> <p>³Ripening dates for all cultivars except Anna & Dorsett Golden are based on averages from Clemson, South Carolina. Ripening dates for Anna & Dorsett Golden are based on averages from Monticello, Florida.</p> <p>⁴Varieties followed by a common letter bloom at about the same time. Since most apple varieties are self-unfruitful (require pollen from another variety to set fruit), plant two or more varieties that have the same letter so fruit set will occur. Stayman, Mutsu & Jonagold have sterile pollen & should not be used as pollen sources for other varieties; therefore, plant at least two other varieties with any of these varieties.</p>			

Source: Clemson Extension (http://www.clemson.edu/extension/hgic/plants/vegetables/tree_fruits_nuts/hgic1350.html)