

Peaches

- 1. Name the two different forms of fiber. Describe the different ways in which each form acts in the digestive system. List food sources of each.**

Primary/Secondary-level response:

The two forms of fiber are soluble and insoluble. Soluble fiber dissolves in water and can be found in food sources like oats, beans, apples, and barley. When you eat this kind of fiber it creates bulk in your gut and helps keep you regular and avoid constipation.

Soluble fiber forms a gel in the gut and regulates the flow of waste materials through the gut/intestines. Soluble fiber also helps to take cholesterol out of the body. Insoluble fiber does not dissolve in water and cannot be digested by the body. Food sources of insoluble fiber include items like whole wheat flour, nuts, wheat bran, brown rice, zucchini, celery, broccoli, and dark leafy vegetables.

- 2. The store sells the following peach items: fresh peaches, frozen peach slices, dried peaches, canned peaches, peach fruit leather, and peach flavored iced tea. You want to buy a peach item that will provide you with the most nutrients to help you reach your fruit and vegetables goals. Complete the following steps to determine which peach item will provide you with the most nutrients.**
 - a. Make a chart showing each of the peach items, nutrient values, and the approximate cost per serving.**
 - b. Which peach serving provides the most nutrients? The least?**
 - c. Which peach item will provide you with the most nutrients for the least cost?**

Primary/Secondary-level response:

[Students can use chart below to list costs. Online shopping sites for major grocery stores may be useful. The nutrient chart shows that the fresh peach provides several important vitamins and minerals; fewer calories; and fewer carbohydrates from sugars. Canned peaches (packed in 100% juice versus heavy syrup) are also a healthy choice.]

	Fresh peach	Frozen peach slices	Dried peaches	Canned peaches*	Peach fruit leather	Peach flavored iced tea
Cost per serving						
Serving Size	½ cup** (75 g)	½ cup (125 g)	¼ cup (40 g)	½ cup (125 g)	1 package (27 g)	1 cup (8 ounces)
Calories	30	118	96	55	97	89
Total fat (g)	0	0	0	0	1	0
Protein (g)	1	1	1	1	0	0
Carbohydrate(g)	17	30	24.5	29	22	22
Sugars (g)	6	28	17	13	16	22
Vitamin C (mg)	5.1	118	1.9	9	15.1	0
Vitamin A (IU)	251	570	865	953	16	0
Vitamin B6 (mg)	0	0	0	0	0	0
Iron (mg)	0.2	0.5	1.6	0.7	0.2	0
Fiber (g)	1.2	2.2	3.3	3.3	0	0
Sodium (mg)	0	8	3	10	109	0
Calcium (mg)	5	4	11	15	5	0

*Canned peaches packed in 100% fruit juice.

**Serving size for fresh peach is ½ of one medium peach, or about ½ cup sliced.

3. Using a California map, identify the top 10 counties where clingstone peaches are grown. What geographic characteristics do these counties have in common? Hypothesize why these characteristics are ideal for clingstone peach production. Repeat for freestone peaches. Compare the lists. What are some geographical and climate differences between these areas? What determines if a county’s geography is better for growing clingstone peaches versus freestones?

Primary/Secondary-level response:

Clingstone peaches are grown primarily in these 10 counties (in order from most to least*): Sutter, Stanislaus, Yuba, Fresno, Merced, Tulare, San Joaquin, Butte, Kings, and Kern.

Freestone peaches are grown primarily in these 10 counties (in order from most to least*): Fresno, Tulare, Kings, Merced, Kern, Stanislaus, Madera, San Joaquin, Los Angeles, and Yuba.

These counties are all in the San Joaquin Valley, with the most clingstones being grown in the northern region (Sutter, Yuba) and freestones in the Central Valley (Fresno, Tulare, Kings). This area is known for its rich, sandy loam soil (ideal for growing peach trees) and warm temperatures with full sunlight. This region is away from the coast (wind) but has good airflow due to the surrounding mountains, and typically does not experience frost during the spring and summer months.

**2007 Data*

Sources:

www.eatright.org/Public/content.aspx?id=6796&terms=fiber

www.cfaitc.org/factsheets/pdf/ClingPeaches.pdf

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