Peppers are excellent sources of vitamins C and A and also contain a range of antioxidant phytochemicals. A small bell pepper yields over 100% of the daily value for vitamin C. Red bell peppers typically have higher total phenolics and 10 times the amount of vitamin A and beta-carotene compared to green and yellow bell peppers.

quantities, but just 2 tsp of fresh cayenne pepper contains 30% of the daily value for vitamin A. Hot peppers contain the phytochemical capsaicin, which is responsible for their "hot" sensation. The hotter the pepper, the more capsaicin. Thus, sweet peppers contain very little or no capsaicin.

Hot peppers are consumed in smaller

#### **HOW THEY IMPROVE HEALTH**

- Phytonutrients in peppers are thought to decrease oxidative stress, which may have potential to reduce risk of age-related cancers and lower cholesterol.
- Contrary to popular belief, the inner white pulp of peppers is edible and contains a large portion of flavonoids.
- Capsaicin in hot peppers is a potent antioxidant. While capsaicin prevents eating large amounts of hot peppers, people can build up a tolerance with repeated exposure. Capsaicin is currently being study for anti-inflammatory benefits and consequent cardiovascular and osteoarthritis protection.

# Farm to Health Series

**MAXIMIZE YOUR NUTRIENTS FROM:** 

### **PEPPERS**

#### NUTRIENT AND PHYTOCHEMICAL CHANGES

Peppers can be stored for about 7 days in the refrigerator. Vitamin C is highest at peak ripeness and declines quickly as the pepper ages. To maximize nutrients and phytochemicals, it is best to consume either raw or frozen peppers. Eating peppers along with a bit of oil helps to absorb the vitamin A and beta-carotene.

		•			
	Carotenoids	Vitamin A	Vitamin C	Phenolics	Capsaicin
Whole storage	= or ↑	=	$\downarrow$	N/A	=
Chopped storage	$\downarrow$	$\downarrow$	=	=	=
Cooking:					
Lightly sautéed	<b>↑</b>	=	$\downarrow$	<b>↑</b>	$\downarrow$
Roasted or grilled	N/A	$\downarrow$	$\downarrow \downarrow$	N/A	$\downarrow$
Boiled, drained	$\downarrow$	=	$\downarrow \downarrow$	$\downarrow$	=
Boiled, undrained	$\uparrow$	=	$\downarrow$	$\uparrow$	=
Frozen:					
Blanched before freezing	=	=	$\downarrow$	=	=
Chopped before freezing, raw	$\downarrow$	$\downarrow$	=	=	=
Frozen whole, raw	=	=	=	$\downarrow$	$\downarrow$
Canned:					
Drained	$\downarrow$	$\downarrow \downarrow$	$\downarrow \downarrow$	$\downarrow$	N/A
Liquid consumed	$\uparrow$	$\downarrow \downarrow$	$\downarrow \downarrow$	=	N/A
↓: decrease. ↓↓: large decrease. = : no change. ↑: increase. ↑↑: large increase					

 $oldsymbol{\psi}$ : decrease,  $oldsymbol{\psi}oldsymbol{\psi}$ : large decrease,  $oldsymbol{\uparrow}$  : large increase

## Recipe: Marinated Peppers and Zucchini with Almonds

(Reprinted with permission from the American Institute for Cancer Research, www.aicr.org)

This recipe utilizes raw peppers, which maximizes vitamin C and phenolic levels. It also incorporates oil to increase absorption of vitamin A and beta-carotene. It does not contain hot peppers, so does not contain capsaicin.

#### Ingredients:

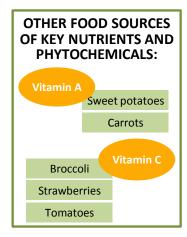
- 1/2 red pepper, thinly sliced
- 1/2 orange pepper, thinly sliced
- 1 small zucchini, cut in half, then thinly sliced horizontally
- 1/2 cup frozen corn kernels, thawed or 1/2 cup canned corn kernels, drained
- 1 Tbsp. extra virgin olive oil, divided
- 1 1/2 tsp. apple cider vinegar
- Salt and freshly ground black pepper, to taste
- 2 Tbsp. lightly toasted sliced almonds

#### Directions:

In large non-stick skillet, saute peppers, zucchini and corn over high heat for 2-3 minutes in ½ Tbsp oil. Remove from heat and place in serving bowl. In separate small bowl, whisk together remaining oil, vinegar, salt and pepper. Pour over vegetables and gently toss. Serve garnished with almonds.

4 servings. Per serving: 80 calories, 5 g total fat (<1 g saturated fat), 8 g carbohydrates, 2 g protein, 2 g dietary fiber, 7 mg sodium, 1035 IU vitamin A (21% DV), 63 mg vitamin C (105% DV)







For more information or how to maximize nutrients in other fruits and vegetables, see <a href="http://localfoods.osu.edu/maximizenutrients">http://localfoods.osu.edu/maximizenutrients</a>.

This information is not meant to diagnose, treat, cure, or prevent any disease. This project is made possible by funding through OSU CARES - an initiative of OSU Extension and the OSU to expand faculty, staff and student partnerships with communities throughout Ohio.









