Perfectly Preserved Potatoes
By Ora Emmerich
UCCE El Dorado County Master Food Preservers
For Print March 16, 2011

Tomorrow, St. Patrick's Day, excites the little bit of Irish in everyone, and wearing green keeps one pinch-free. The color green, reminiscent of the Irish Flag, shamrocks and leprechauns, looks fine on clothing, but may be frightening if found on a traditional Irish staple, the potato.

Actually, the green found in stored potatoes results from chlorophyll, formed from exposing the potatoes to light. The colorful chlorophyll changes sometimes occur simultaneously with glycoalkaloid formation. Glycoalkaloids cause potatoes to become bitter, and too much of these compounds can be toxic. To stay on the safe side, cut out the small green sections of stored potatoes before preparing and throw out any potatoes with a lot of green.

Besides storing potatoes in dark areas to avoid encouraging chlorophyll and glycoalkaloid changes, what can be done to ensure ideal storage conditions? Temperature and humidity control, that is what! Potatoes sprout and these sprouts grow more rapidly in warmth. High temperature during storage also supports the growth of disease causing organisms. For optimum results, potatoes should be stored between 42°F and 50°F. As for humidity, potatoes contain about 80% water. To keep the potato for as long as possible, the relative humidity during storage should be about 90-95%.

Since most people do not live in completely dark, very cold and relatively damp homes, what can be done to store fresh potatoes successfully at home? Well, the University of Idaho (where else?) conducted a study to find out just that answer. Students used Russet potatoes and placed the potatoes in a variety of containers and a variety of locations in a typical home. They then kept careful records of temperature, humidity and greening of the potatoes.

The results? Yes, it's best to store potatoes in a cool, dark, well-ventilated space. Suggestions such as a second refrigerator set higher than normal, or an unused basement or spare room require extra space in the home. Other suggestions include an unheated entry area or a garage insulated to protect from freezing. Keep the potatoes in a dark, perforated bag. The students found good results in a damp cellar. Interestingly, they found that potatoes stored in a properly set refrigerator and in very cool locations tended to darken when fried. One key recommendation, to purchase potatoes on an "as needed" basis to minimize the need for long-term storage, makes sense in today's modern world.

The russet, king of home cooking, needs to move over a bit. Many interesting potato varieties now fill the fresh vegetable section of the neighborhood supermarket, with even more at produce stands and farmer's markets. White, yellow, red and even blue skinned potatoes seem to show up more and more as cuisines from various cultures combine to provide home cooks with innovative recipes. Late in 2011, a purple potato, "Purple Pelisse", developed by the USDA and scientists at land grant universities in Oregon, Washington and (of course) Idaho will be hitting the shelves at specialty markets. For now, experiment with the different varieties and add color and fun to recipes. Some potato recipes may actually leave someone seeing green in a good way…such as this one from the University of Missouri website:

Irish Twice-Baked Potatoes

Ingredients

- 3 large baking potatoes (about 12 ounces each)
- ½ cup 1% low-fat milk
- ½ cup tub-style light cream cheese (about 4 ounces)
- 1¾ cups (7 ounces) shredded reduced-fat sharp cheddar cheese, divided
- ¼ cup finely chopped onion
- ¼ teaspoon salt
- ¼ teaspoon black pepper
- 1 (10-ounce) package fresh baby spinach
- Sliced green onions (optional)

Preparation

1. Preheat oven to 400° F.
2. Pierce potatoes with a fork, and bake at 400° for 1 hour and 15 minutes or until tender. Let them cool. Cut each potato in half lengthwise; scoop out pulp, leaving a 1/4-inch-thick shell.
3. Sautee onion for 2 minutes until tender. Add fresh spinach and cook until spinach is wilted.
4. Mash potato pulp with a potato masher. Combine milk and cream cheese in a large bowl, and stir with a whisk. Add potato pulp, 1 cup cheddar cheese, salt, pepper, and onion and spinach mixture; stir well.
5. Spoon potato mixture into shells; sprinkle each half with 2 tablespoons cheddar cheese. Place stuffed potatoes on a baking sheet; bake at 400° for 15 minutes or until thoroughly heated. Garnish with green onions, if desired.

Jami Nolen Yield: 6 servings (serving size: 1 potato half)

Questions about safe home food preservation? Call the Master Food Preservers and leave a message at (530) 621-5506. A Master Food Preserver will return the call. The Master Food Preservers are also available free of charge to speak to organizations and clubs about food safety or food preservation topics. Just call the number above to arrange for a speaker for small or large groups. For more information about the public education classes and activities, including the free public classes on food safety and pressure canning, be sure to go to the Master Food Preserver website at http://ceeldorado.ucdavis.edu/Master_Food_Preservers/.