More and more consumers are choosing to buy locally produced foods. Many consumers believe locally grown foods taste fresher and are healthier. Buying locally also helps communities by stimulating local economies and protecting the environment. This article outlines the benefits of buying locally grown food and eating seasonally in Arizona.

What is Local Food?

The term “local food” does not have a universally accepted definition. A 2008 national survey found that over 70% of consumers surveyed described “local” as “made or produced within 50 miles of their homes”, while another approximately 20% described “local” as “made or produced in my state.” [1]

According to the definition adopted by the U.S. Congress in the 2008 Food, Conservation, and Energy Act, the total distance that a product can be transported and still be considered a “locally or regionally produced agricultural food product” is less than 400 miles from its origin [2]. Thus, a definition of “local” may depend on whether it is within a certain radius i.e., county, state or region. And a district’s definition of local may change depending on the season, product, and special events [3].

Why Locally Grown Foods?

Consuming locally grown foods is associated with freshness, supporting the local economy, and protecting the environment. Several factors, such as nutritional quality, ripeness at harvest, post-harvest handling, processing and packaging, and distance transported, affect the quality of food produced in Arizona. The following are some reasons to consider buying locally grown foods.

Better nutrition and well-being

Fruits and vegetables provide key nutrients (e.g., carbohydrates, proteins, vitamins, and minerals), dietary fiber, and protective substances (e.g., antioxidants) that contribute to health and general well-being. They are associated with reducing the risk factors for many chronic diseases and aid in weight control. MyPlate, which is based on The Dietary Guidelines for Americans (the Department of Agriculture (USDA) and the Department of Health and Human Services) recommend: “Make half your plate, fruits and vegetables. Choose red, orange, and dark-green vegetables like tomatoes, sweet potatoes, and broccoli, along with other vegetables for your meals. Add fruit to meals as part of main or side dishes or as dessert.” [4]
Variety: When different produce is available throughout the year, it encourages individuals to consume a variety of fruits and vegetables. The variety of fruits and vegetables provides many vitamins, minerals, antioxidants and fibers. Eating a variety of fruits and vegetables helps you meet your needs for different nutrients. Nutrients commonly found in foods from one group may not be present in high amounts in another. This is one of the reasons for eating a variety of foods. Eating a variety of foods is one of the best things you can do to prevent and control many health problems, such as heart disease, high blood pressure, type 2 diabetes, and some types of cancer. It is the way to a healthier, nutritious diet.

Freshness: Locally grown produce at a farm stand, farmers’ market or grocery store tends to be fresher because it is picked at the peak of its quality and nutritional value. On the other hand, fruits and vegetables grown thousands of miles away are often harvested as early as possible in order to reduce damage. Extra packaging is used to protect the produce during long-distance transportation. Total vitamin C content of several different fruits and vegetables, including tomatoes, red peppers, and peaches, has been shown to be higher when harvested ripe and eaten soon after. Delay between harvest and consumption results in loss of flavor and nutritional potential [5]. Fresher produce, tastes better which makes eating fruits and vegetables more appealing.

Quality: Arizona fruits and vegetables destined for the local markets are generally harvested by hand. Mechanical harvesting methods have the potential to damage them and can result in nutrient losses. Fortunately, most farms in Arizona -large and small- avoid mechanical harvesting, opting to harvest by hand. Maintaining nutritional quality after harvest also requires special handling, particularly with delicate items like berries and tomatoes. Another good reason to buy locally grown foods is that once produce is separated from its source of nutrients (tree, plant, or vine) it undergoes higher rates of respiration, resulting in loss of moisture, nutrient degradation, and spoilage. Consuming locally grown foods avoids such losses by reducing the distance and time it takes to get from the farm to table.

Building the Local Economy
When buying locally from farmers, consumers help cut the costs for the local farming community by reducing the need for transportation of their crops over long distances. The more people buy locally, the money can be saved on transportation, fuel and packaging of the food. The savings could then be reinvested in the local community. Small, family farms typically spend their money locally by purchasing needed supplies and equipment within their communities. Larger farms can use the money to expand and hire more workers, leading to job growth within the community.

Protecting the environment
Reducing the distance food has to travel from a field to a consumer could be beneficial to our environment. Depending on the distance traveled, locally grown foods require less fuel and energy to transport (by truck, rail or air). Local foods often do not require special packaging for traveling great distances. Thus, buying locally can reduce the use of plastic bags and petroleum based packaging which helps reduce the waste associated with packaging. Fuels, packaging, and preservatives may be applied to maintain freshness of fresh produce. Each has a negative impact on the environment.

When Can I Buy Local Foods Seasonally?
You can buy Arizona fruits and vegetables throughout the year. Seasonal eating is when those fruits and vegetables are most plentiful, at maximum ripeness, have the most nutrients and are cheapest. It requires conscious decisions by consumers to buy foods that support the local economy. Use the one page, printable “Seasonal Produce Availability Chart” in the Appendix to help find some of locally grown, in-season produce.

Where Do I Find Local Foods?
There are many places selling locally produced foods, including farmers’ markets, and grocery stores. LocalFresh.Info is an interactive website that enhances connections between consumers and producers of local food. It was established in 2003 by the University of Arizona’s Agricultural and Resource Economics Department as a service for Southwest farmers and ranchers wanting to do more direct marketing to local consumers. LocalFresh.info allows anyone to search for offerings of their favorite vegetables, edible flowers, honey, breads, eggs, meat and poultry within a specified distance of any zip code in Arizona. Users can view harvest calendars, maps and information of producers and markets in their area.

localfresh.info est. 2003

Some other websites that provide information about where to find local foods are listed below.

- LocalFresh.Info has an extensive and dynamic website to connect consumers and local growers. http://localfresh.info/
- Arizona Farm Bureau has a website that shows which foods are grown locally in Arizona and offers links where the foods are sold. http://fillyourplate.org
- Arizona Grown offers information as to which foods are grown in Arizona. http://arizonagrown.org/
- The Arizona Health Department offers information on Arizona’s farmers’ markets where consumers can use their WIC benefits http://azdhs.gov/azwic/farmers_market

Grocery stores are now required to use “country of origin” labels on their produce. These labels can help consumers find local foods. Some stores may have local agricultural promotional marketing campaigns such as “support local farmers.” This can help consumers buy fresher, ripe produce when shopping at local grocery stores.

Contact local Extension agents for more information on which locally produced foods are available in your area. (The University of Arizona, Cooperative Extension. https://extension.arizona.edu/)
How can Local Foods Fit into a MyPlate?

Local foods can be a part of healthy eating. Here is some example of local foods that fit into the different food groups of MyPlate [6].

**Vegetables:** celery, corn, eggplant, kale, lettuce, potatoes, pumpkin, tomatoes

**Fruits:** apples, dates, grapes, grapefruit, lemons, oranges, plums, watermelon

**Grains:** barley, cornmeal, farro, whole grain cornmeal, whole wheat

**Meat and Beans:** beef, chicken, lamb, lima beans, pinto beans, pole beans

**Dairy:** cheese, cottage cheese, milk, yogurt

**Others:** eggs, honey, olives, pecans, pistachios, wine

Summary

Locally grown foods are fresher, better tasting, and often contain more nutrients being picked at full ripeness than foods that have endured many miles of transportation. Buying locally helps communities by stimulating local economies and protecting the environment. Try a recipe that is easy and affordable using local produce!

DID YOU KNOW?

Did you know there are apple orchards in Arizona, where you can pick your own apples? Apples are one of the easiest fruits to pick. It is a fun activity the whole family can enjoy together!

References


6. USDA, ChooseMyPlate.gov. Available at: http://www.choosemyplate.gov/

7. The University of Arizona, Cooperative Extension, The Extension Food and Nutrition Education Program (EFNEP) “Create Your Own Casserole” Available at: http://extension.arizona.edu/sites/extension.arizona.edu/files/resources/cookbook.pdf
Easy Farmer's Market Vegetable Casserole

When you are buying ingredients for the following recipe, try to choose local foods when available. Cheese, buttermilk, some vegetables, and pasta are grown/made in Arizona!

Ingredients for 6 servings:
- 1 cup dried whole wheat pasta
- 2 cups diced, fresh raw vegetables, such as carrot, eggplant, bell pepper, onion, squash, tomato
- 1 cup shredded low-fat cheddar cheese
- 1 can condensed cream of chicken soup
- 1/3 cup low-fat buttermilk
- 4 tablespoons breadcrumbs (optional)
- Salt and pepper to taste

Directions:
1. Preheat oven to 375°F
2. Cook 1 cup of dried pasta according to package directions, drain and set aside
3. Place diced vegetables in a microwave safe dish with 2-3 tablespoons of water, microwave on high for 4-6 minutes, or until vegetables are soft (Cooking times may differ depending on the type of vegetables you choose. For more help, contact your local Cooperative Extension office The University of Arizona, Cooperative Extension. https://extension.arizona.edu/)
4. Mix cooked pasta, cooked vegetables, shredded cheese, can of soup, and buttermilk in an 8x8 casserole dish
5. Top with breadcrumbs (optional)
6. Cover with oven safe lid or aluminum foil
7. Bake for thirty minutes until bubbly

Per Serving:
- Calories: 253 calories; Carbohydrate 37gm; Protein 13g; Total fat 7g; Fiber 6g; Calcium 221 mg; Sodium 550 mg; Iron 2mg; Cholesterol 15mg

Adapted from EFNEP’s “Create Your Own Casserole” Recipe [7]

Abstract
More and more consumers are choosing to buy locally produced foods. Locally grown foods are, fresher, contain more nutrients if picked at full ripeness, and are considered by many consumers to be better tasting than foods that have endured many miles of transportation. Consuming local produce may help communities by stimulating local economies and protecting the environment. This article outlines the benefits of buying locally grown foods. A recipe that is easy and affordable using some local produce is included. A calendar of seasonal produce in Arizona is included in the Appendix.
Arizona Fruit and Vegetable availability Calendar

<table>
<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apples</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arugula</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broccoli</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cabbage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carrots</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corn (Sweet)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cucumbers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garlic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grape Fruit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grapes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green Onions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herbs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lemons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lettuce</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oranges</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Onions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peaches</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potatoes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pumpkins</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spinach</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strawberries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Squash (Summer)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Squash (Winter)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tomato</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watermelon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Created using fillyourplate.org, arizonagrown.org, and localfresh.info*