W 362-A

YOUTH GARDENING IN TENNESSEE: AN INTRODUCTION

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With Tennessee's temperate yet mild climate, it's possible to grow a variety of fruits and vegetables in gardens. With a varied range of suitable temperatures and rainfall, Tennessee is home to some of the most abundant biodiversity in the United States! While these factors can provide a large number of garden crop choices, climate variability, humidity and native clay soils can present a challenge to many beginning gardeners. In the Youth Gardening in Tennessee Series, we've created a host of fact sheets to help youth gardeners, leaders and parents become successful in their gardening efforts. The fact sheets cover the entire span of youth gardening, from understanding when to plant to managing (and cooking!) your harvest.

In this first fact sheet, you will learn more about planning your garden, including categories of crops, and why fruits and vegetables are so nutritious. For help with understanding how to improve the soil for gardening, we've written a publication for youth and adult leaders, W 362-B "Soil Building and Plant Nutrition." For information on how to keep your garden watered, you can refer to W 362-C "Maintaining Moisture in the Home or School Garden." In W 362-D "Ten Favorite Plants for Youth Gardeners in Tennessee," we provide growing, harvesting and nutrition information for ten crops that are nutritious, delicious (according to kids!) and relatively easy to grow in Tennessee. In W 362-E "Easy Recipes for Your Harvest," we provide some easy and delicious recipes so that kids can enjoy sampling the food they have worked hard to grow. All of the fact sheets are available at utextension.tennessee.edu/publications.

Planning Your Garden

To get you started, we've organized these plants into two separate categories for growing in Tennessee: warm- and cool-season crops.

Warm-season crops grow and yield well with warm soil and air conditions and are severely damaged or killed by freezing temperatures, so they are grown during the warmer months of late spring, summer and early fall. It's best to plant them after the danger of last frost in spring is past, usually mid-April or later in most parts of Tennessee. It's also wise to plant these crops in time to harvest them before the average first frost in fall. For the average first and last frost dates in your county, you can check with your local UT or TSU Extension agent.

Unlike warm-season crops, **cool-season** crops prefer it when the weather is cooler, like in the spring or fall. These crops, such as lettuces and kale, prefer milder weather in spring and fall to the heat of summer. It is important to plant them early enough in the spring so that they have time to mature before the summer heat causes them to become bitter and bolt. **Bolting** refers to the production of flower stalks that will later produce seeds. This is an unwanted event for many crops that are grown for their leaves. During this process, many plants can take on a bitter taste and some may even become spicy.

For this reason, it makes sense to harvest greens in the spring before regular temperatures exceed 80 degrees. While cool-season crops may bolt in the spring if not harvested in time, they can also fail to mature if planted too late in the summer or fall. For more in-depth planting dates and **intervals** (time periods) for growing a variety of vegetables in Tennessee, see PB 901 Growing Vegetables in Home Gardens extension.tennessee.edu/publications/Documents/PB901.pdf.

Why Are Fruits and Vegetables So Nutritious and Why Should We Eat Them?

We all know that fruits and vegetables are healthy for you, but what makes them so? Fruits and vegetables contain a variety of **macronutrients**, **vitamins** and **minerals**. Whether talking about plant or human nutrition, macronutrients refer to nutrients used in large quantities. When referring to human nutrition, macronutrients include carbohydrates, protein, and fiber. Carbohydrates give us energy, proteins help us build muscle tissue and fiber helps our digestive system, among other things. In contrast to macronutrients, micronutrients are used in smaller quantities.

Also in terms of human nutrition, micronutrients refer to vitamins and minerals. Some vitamins found commonly in fruits and vegetables include A, B6, C, E and K. Vitamin A keeps our eyes and skin healthy. Vitamin C is needed by the body for the growth and repair of tissues like skin, teeth and bones. Vitamin E helps the immune system stay strong against viruses and bacteria and is important in the formation of red blood cells. Vitamin K helps our blood clot.

Minerals are similar to vitamins. Some minerals found in fruits and vegetables include calcium, copper and folate. The body uses calcium to maintain strong teeth and bones, for muscle movement, and for nerves to carry out messages between the brain and rest of the body. Copper is used by our bodies to make red blood cells and keeps nerve cells and the immune system healthy. It also helps keep the blood vessels, nerves, immune system and bones healthy. Our bodies need folate to make DNA and for cell division. Whole fruits and vegetables contain healthy amounts of carbohydrates, protein and fiber and can be rich in vitamins and minerals. For more nutrition information on specific fruits and vegetables, you can refer to W 362-D "Ten Favorite Plants for Youth Gardeners in Tennessee."

We hope you'll enjoy learning about gardening in Tennessee and that you'll enjoy the health and nutrition benefits of eating these delicious, locally grown fruits and veggies!

References and Further Reading:

fnic.nal.usda.gov/food-composition/macronutrients
fnic.nal.usda.gov/food-composition/vitamins-and-minerals
ods.od.nih.gov/factsheets/list-all/

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