

Daily Union Article

Saturday, May 20, 2017

Title: The Garden – A Great Learning Place

We recently planted the first two rows of our 16 rows of sweet corn and are getting ready to move our tomato plants out to the garden this weekend. It's an exciting time for our family as we enjoy the process of planning, planting, and production of our half-acre garden plot. My kids keep a keen eye out for seeing the first leaves of our sweet corn poke through the surface of the soil. Making gardening a family project is a great way to teach children the value of our natural resources and well as build an appreciation of where our food comes from. It is also a way to making healthy eating an easier and accessible choice while reducing the cost of monthly food bill.

Including your children or grandchildren in your gardening practices provides many benefits:

- 1) Gardening with children allows them a wide variety of engagement opportunities such as designing, planting, and maintaining a garden.
- 2) Encourages them to work in cooperative groups with other family members
- 3) Promotes a real-world perspective of natural science and nutrition
- 4) Gives them the opportunity to grow, harvest, and share food with others.

School is drawing to an end for this academic year, but a person's learning is an ongoing lifelong experience. Use the summer months to offer hands-on learning experiences that relate back to what that have or will be learning in the classroom at their school.

Science: As part of the gardening experience, children can learn the basic parts of the plant. There are many vegetables that you can plant that will help the child see what these parts are and give you an opportunity to explain the role the part has in the plant's growth.

Here is a quick run-down of the basic plant parts (roots, stems, leaves, flowers, fruits, and seeds) and what they contribute as part of the plant's development.

The **root** system can be either a taproot system or a fibrous root system. Examples of a fleshy taproot that we eat are carrots or turnips. The purpose of the root is to carry water from the soil to the stems and out to the leaves.

The **stem** grows aboveground and is attached to both the root(s) and the leaves in order to carry water and nutrients from roots to leaves. They also provide support for the plant allowing the leaves to reach the sunlight they need to produce food. The plant's **flower** attaches to the stem aboveground and produces the seeds for plant reproduction.

The **leaf** also grows aboveground and is most commonly green in color. They play an important role in making food for green plants by catching light and allowing water and air to come and go.

The **fruit** is the ripened part of the plant – called the ovary. The ovary swells and becomes either fleshy or hard and dry to protect the developing seeds.

By reviewing the plant parts and their purposes with your child as you garden with them, they will have a better visual understanding of how a plant is able to provide them with the food they eat.

Nutrition: When you harvest from the garden, you can help your children recognize what ripe fruit looks like, feels like, and tastes like. The maturity of the fruit can greatly impact its nutritional value. Fruits and vegetables are a major sources of various minerals, Vitamin C, thiamin, folate, riboflavin, B-6, niacin and Vitamin A.

Vitamin C is important in the synthesis of collagen which gives structure to our bones, ligaments, and blood vessels. Citrus fruits are well-known for their high levels of vitamin C but there are few citrus fruits grown in our Kansas home gardens. However, strawberries are much more comfortable in our climate. A single serving of strawberries provides us with 160% of our daily need of Vitamin C.

Vitamin A helps maintain healthy bones and soft tissue in our body. It also keep our skin and teeth in good health. Carrots are an excellent source of Vitamin A with a single serving providing for 110% of our daily need. Since carrots are not easily grown in our clay-ridden soil, our leafy green vegetables offer a great source of Vitamin A from our Kansas gardens. A single serving of leaf lettuce (**not** iceberg lettuce) provides us with 130% of our daily need for the nutrient.

The kids are certainly most excited to see the end of the school year in front of them, but learning is a lifelong skill. Help your children learn from the benefits of gardening while giving them some hands-on experience. For more information on nutrition and wellness, feel free to contact me at the Geary County K-State Research and Extension office at 785-238-4161. Until next time, keep living resourcefully!