



ALABAMA CHAMPION OF soil health

Earl and Charisse Snell
Dale County Small Farmers
90 acres

Crops: watermelons, peanuts, peas,
squash, greens, tomatoes, and
other vegetables



Improving soil and connecting consumers with local producers

Earl and Charisse Snell are small farmers in Dale County. They raise naturally-grown produce such as watermelons, peanuts, peas, squash, greens, tomatoes, and other vegetables. Earl was a USDA Produce Inspector. He now divides his time between being the Ozark City Market Manager and farming. Charisse is an elementary school teacher.

The Snells grow fresh produce for their family and sell to the community thanks to a seasonal high tunnel they built. Also called hoop houses, these structures look a lot like greenhouses but require no artificial energy source; they only need natural sunlight to grow vegetables, fruits, and other crops. A hoop house protects the growing crop from environmental

extremes such as wind, hail, rainfall, insects and diseases, thus resulting in earlier and higher yields.

The Snell's hoop house operation adds many benefits to their operation. These include energy reduction through direct sunlight, decreased water usage and increased water quality (with reductions in pesticides and nutrient inputs and outputs), and improved soil quality.

The quality of the soil is critical to the proper functioning of a hoop house. Earl said, "To have healthy plants, you have to have healthy soil." Mulching and adding substantial amounts of compost or leaf litter will increase the organic matter which acts as a source of slow-release nutrients. These nutrients increase the soil's capacity to provide oxygen, water, and nutrients to the crop.

It is important to conduct soil samples to be aware of the soil's characteristics and to improve soil quality and plant performance.



A hoop house protects the growing crop from environmental extremes.

Rotating different species of plants also helps keep the soil healthy. While tomatoes are the most popular crop grown in hoop houses, they should not be replanted without rotating to a crop from a different family. Growing the same crop in successive years can lead to an increase in disease, insect, and

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- Earl Snell

weed pressure. Crop rotation is used to break the cycle of the diseases and insects associated with specific crops.

Cross pollination is important for melons, some cucumbers, squash and berries. Some producers become bee keepers to ensure enough pollinators are available in their area.

Most of the Snell's crops are grown using micro-irrigation. The water is directed to the root of the plants and does not runoff the ground, keeping

nutrients and pesticides from draining into streams. This helps conserve water and protect water quality.

The Snell's are leaders in their community. They promote the consumption of fresh, local food through the United States Department of Agriculture's (USDA) Know Your Farmer, Know Your Food initiative, and the Alabama "Buy Fresh - Buy Local" Initiative. They also work with local schools, university research departments, and community groups.

Earl is working with local producers to form a community-based farming organization. They help other farmers to install micro-irrigation and hoop houses. They also encourage and assist other farmers through outreach activities of the Federation of Southern Cooperatives in Epes, Alabama.

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United States Department of Agriculture
Natural Resources Conservation Service