



by Judi Burton

ALL SEASON HYDROPONICS and the fresh growing future

All Season Hydroponics recently opened its doors in Conway. And in Columbia, the old All Good Hydroponics store was renovated and reopened as the new All Season Hydroponics, with more stores across the state in the planning stages. It has created a big buzz in the community, and Wade Schaffner was kind enough to take time out of his busy schedule to sit down and talk to me.

“The future of food lies with educating the children,” said Wade. We’ve all done the Dixie cup experiment when we were kids in elementary school; we filled it with soil and watched a lima bean grow into a sprout, and finally, if we didn’t overwater it or forget to water it, we would have a fine plant to show our parents. Unfortunately, we were not told the whole story. Wade told me of a schoolteacher who was so disappointed in the school’s simplistic curriculum about plants that she called him. He invited her class to come into the store so they could see that a plant does not necessarily need soil to grow. All it needs is light, water, nutrients and a place for support with roots in place. “If someone converted their garage into a garden with grow lamps, they could be completely food sustainable,” said Wade. I chuckled as I thought about farming fish in my bathtub.

We spoke about the use of electricity for hydroponics and how it could raise an

electric bill considerably. He countered that the world is moving forward, and someday many will have solar panels or wind turbines or benefit from sustainable energy. “You don’t have to use grow lights to have a hydroponic garden,” he explained. “If you have a Carolina room or a greenhouse you can just use natural light.” I walked around the store and noticed that all the equipment looked very high tech. There were grow lights and hexagon-shaped reservoirs, foil air vents, and tubes running in and out of six-foot-tall tomato plants, like someone on life support. Huge, green leaves encroached upon the walkway, and lettuce sat in long metal contraptions just waiting to be picked. I asked Wade how could a normal person afford any of this? He smiled and said, “It’s an investment and a hobby, but we have a lot of do it yourselfers. It’s simple to pick up a couple of five-gallon buckets, submersible water pumps, and a couple of tubes bought from a home improvement store. I encourage people to come in and sit and chat. I want to learn from them, and in turn, they might learn from me as well.”

“Hydroponics” is broken down in Greek to mean “water at work.” A farmer can put all of his or her crops in a few greenhouses away from drought and insects, fungus and flooding, and play Mother Nature. He or she can control the wind, rain, sunlight and nutrients to maximize the crop potential. The plants

are able to grow year round regardless of temperatures outside of the greenhouse. If you want strawberries in January, your wish is granted. In fact, you can get up to four harvests in a year, which is twice as many as you can achieve with traditional farming. These plants are very happy indeed. If you were to make up a fictional story where plants were the main characters, hydroponic plants would be the privileged elite.

For thousands of years, humans have battled the elements to support their agriculture. Maybe the rain never came, and when it did, it flooded the crops. Maybe the rabbits did what they are most famous for and made huge numbers of babies to eat your carrots. Or your entire cabbage crop was slowly eaten by cabbage worms right before your eyes. What a struggle it must have been to be holed up in your house for a long winter season and pray the final frost will be earlier this year as your storage of food dwindles. There are so many variables that Mother Nature plays on the Earth that it impossible to have 100 percent crop retention. It was impossible until a man named Sir Francis Bacon published a book called *Sylva Sylvarum* in 1629 that talked about growing plants without soil. This was the beginning of hydroponics.

There are several ways to manage hydroponic plants, but the most popular is the “ebb and flow” technique: water is pumped into reservoirs where plant roots are hanging down. The water sits there for minutes, and then is pumped back out to be recycled into the next reservoir. Hydroponics is also highly water efficient. It uses about 1/20th the amount of water that a regular farm would use, and there is zero herbicide or pesticide runoff into rivers and streams. Food waste, a tremendous burden on the environment and economy, is greatly reduced with home hydroponics. You can simply pick fruit fresh off the plant for as long as you want, and the plant will keep producing.

For more info, contact Wade Schaffner at All Season Hydroponics, Conway, at 843-347-9266 or in Columbia at 803-708-4819, or visit AllSeason-Hydroponics.com.