

Herb Farmer ◀

BRIEFLY: Hydroponic herb farmers, like John, don't depend on good weather or fields with fertile soil to grow crops. They grow their plants in warm, lighted greenhouses and feed them with nutrient-rich water so, fortunately, they produce year-round to satisfy cooks' growing demand for fresh herbs.

John Markets Freshness

Grows 18 Varieties of Herbs, Edible Flowers

"Herb farming is a field that's improving and getting bigger all the time," John says. "So many recipes in books and magazines call for fresh herbs. Fresh herbs just have a better flavor than the dried stuff!"

John owns and operates White Clover Farms, located near Paynesville, Minn. Here he raises 18 varieties of herbs, including Italian parsley, chives, sorrel, sage, and basil, and even edible flowers, like pansies and nasturtiums, to garnish salads and cakes.



► John adjusts a tube, which feeds the tray of herbs with nutrient-enriched water.

He grows the herbs hydroponically, planting them in substances other than soil; then nourishing them with water fortified with various chemicals and nutrients. With his wife Laurel and five employees, he plants, harvests, packs, markets, and ships the herbs to stores, grocery wholesalers, and a few restaurants as far away as South Dakota and Michigan. He also has developed his own herb mixtures to complement various meats and salads. And he has assembled recipes using fresh herbs. Since the Liestmans run their own business, they also must take care of payroll and taxes and address issues that arise because of government regulations.

Before becoming an herb farmer, John tried several other business ventures. In high school, he planned to be an auto mechanic. So, after he graduated, he enrolled in an auto mechanics program at a vocational college. Even before completing the course, he opened Liestman Repair, where he worked on cars and farm machinery.

For 28 years, he owned and operated John's Cat House, selling snowmobiles, boats, and motorcycles. After he sold that business, he became a fish farmer. He got the idea for this business after watching a friend's son build fiberglass tanks and other equipment for Glacial Hills, a start-up aquaculture company.

He equipped a large building with 11 tanks and started raising tilapia, a fish popular in Mexican and Asian cuisine. Glacial Hills provided him with fingerlings, expertise, and markets. When the company went out of business, John continued alone, doing his own marketing and

FOR THE RECORD



John
Owner
White Clover Farms
Minnesota

EDUCATION

- ▶ Graduate of Paynesville High School, Paynesville, Minn. Favorite subject—math. Favorite activities—hunting and fishing.
- ▶ Willmar Vo-Tech, Willmar, Minn., two years. Studied auto mechanics.
- ▶ Attended training sessions in hydroponic farming offered by CropKing in Seville, Ohio.

WORK HISTORY

- ▶ Worked on his father's farm from childhood through high school.
- ▶ Carpenter, Liestman Construction, Paynesville, Minn., three years.
- ▶ Self-employed auto and farm mechanic, Liestman Repair, Paynesville, two years.
- ▶ Owner, John's Cat House, Paynesville, 28 years. Sold snowmobiles, boats, and motorcycles.

JOB BENEFITS

- ▶ None—self-employed.

CLOSE-UP

- ▶ *"I like being self-sufficient. I enjoy going to work. There's something interesting and a new learning experience every day."*

relying on another local fish farmer to pick up and deliver his products.

Soon, however, he realized he needed something to supplement his income. Coincidentally, his twin daughters Stacey and Shelly were working for a local herb farmer who wanted to sell his business. John and Laurel decided to take it over.

For a short time, he grew herbs only in the summer in an outdoor garden. The rest of the year, he bought them from growers in California and Texas and repackaged them. "But shipping by overnight delivery was really expensive, and the herbs were not quite fresh. For instance," he says, "a company in California had to take the order; then pack it and ship it to the warehouse. By the time the herbs went from the warehouse to the customer, they could be four or five days old. Ideally, orders should go out immediately."

Convinces Local Stores

To meet his own standards for quality, John decided to grow herbs year-round in a greenhouse. He learned the techniques of hydroponic farming by attending several training sessions. He set up an office and packing area in an existing building and built a 30-by-70-foot greenhouse in a sheltered area.

Then, he and one of his employees started knocking on doors and making phone calls to sell the product. "It was very tough getting into some places," he recalls. "They had their own suppliers, most of them from far away." Because his was a quality operation in every aspect—including planting, harvesting, and packing—he gradually convinced grocers, wholesalers, and restaurant owners to try his products.

Eventually, his market expanded through word of mouth. For example, he had trouble selling to a large chain of stores based in South Dakota until a Minnesota store owner convinced them that White Clover products are superior.

During the first couple of years, John encountered some setbacks. "We found out after we got started that, in Minnesota, you can't grow every herb year-round, even in a greenhouse. Some of them need lots of sunlight, and we just don't have enough." One winter, he tried raising them under artificial lights. "But they don't do the job like sunlight. They just aren't strong enough."

He found, however, that some herbs, like dill, arugula, sorrel, parsley, and thyme, did fine. So he now raises these through the winter, still using grow lights to supplement the scarce sunshine. He grows chives, sage, rosemary, and watercress only in summer.

The greenhouse stays warm year-round with a bank of heaters in its outer room. In summer, fans blow away excess heat. Computers run both of these systems.

On one side of the cement-floored building, mesh metal tables hold trays of plastic bags that John has filled with perlite, a crumbly volcanic growing element. Individual woody plants—including sorrell, thyme, chives, oregano, and chervil—grow in evenly spaced holes in the bags. A mixture of nutrients drips on them from pipes running above them to feed them and keep them moist.

Tables on the other side of the greenhouse are for nonwoody plants like watercress and Italian parsley. They grow in Rockwell cubes, which are made of volcanic rock heated and spun with air to produce a foam-like substance. John buys seeds that are especially designed to do well hydroponically and plants them individually in a tray of Rockwell cubes. Then he places the trays in long, thin plastic racks on the tables. Nutrient-rich water comes from a large tank and runs into thin tubes to nourish the plants at their roots.

Yesterday morning, after John fed his fish, he went to the greenhouse to make sure pumps and fans were running. “It can get up to 130 degrees in here if the fans aren’t working,” he notes.

Babies Basil

Using a hand-held device, he checked the electrical conductivity levels of water/nutrient mixture in the tank. Then he combined his special blend of calcium, nitrate, potassium, monopotassium, and other chemicals into a batch of fertilizer. He does this once a month but checks and adjusts the mixture daily as the plants use it up.

By 9, John was in the herb office where Laurel was already on the phone taking orders and writing them up. He had coffee with his staff. Then, he gathered customers’ orders and several large plastic containers, and headed back to the greenhouse. There, he snipped enough herbs to fill orders. The woody herbs tables are on wheels, so

it’s easy to maneuver around them. To harvest nonwoody herbs, he lifted each tray and set it on a rack in the aisle.

He placed most of the harvested herbs in coolers in the packing area for about 45 minutes at 34 to 36 degrees. The basil, however, went into a special cooler regulated at 56 to 58 degrees. “Below that temperature, basil will turn black or get black spots,” he explains. “That’s a problem when we ship it. We have to make sure the basil goes on the warmest end of the truck.”



► *John and his wife Laurel package herbs in plastic clamshells, which stores display in their produce sections.*

Herbs can survive for a week in the coolers, but most of them are shipped out the day they are harvested. Working at long, Formica-topped tables, John and his staff placed the individual varieties into plastic clamshells in quantities of a quarter to three-quarters of an ounce. They attached labels to the containers and returned them to the cooler.

John took 20 minutes for lunch at noon; then resumed helping his staff pack and label the herbs. At 4:15, they packed the day’s orders—750 orders for 20 markets—into large cartons equipped either with cold packs from the freezer or hot packs from the microwave so they would survive their journey. “The only time we don’t ship is when it’s 20 below or colder,” he remarks.

The day’s orders left by truck shortly after 5:30. Then John spent the early evening check-

Herb Farmer

ing equipment and feeders in both the greenhouse and the fish tanks.

He works a 60- to 70-hour week, including evenings, weekends, and holidays. “In this type of business,” he says, “you’re constantly trying to improve and upgrade, and that takes time.”

The work can be physically taxing, especially hauling 50-pound bags of fertilizer and working in 90-degree greenhouse temperatures. Eventually John would like to be able to hire more employees and work fewer hours.

He and Laurel attend about 20 hydroponics and aquaculture conventions each year. When they

leave on business or pleasure, they can count on their well-trained staff to carry on. Four or five times a year, John attends bass fishing tournaments, competing to catch the most pounds of fish in a three-day period. “I’ve won a first, two seconds, and some sevenths and eighths,” he says.

He is encouraged to see that opportunities in herb farming are growing. “The industry increased about 20 to 25 percent last year, and we’re keeping up with the industry,” he points out. “How far you want to go and how much you want to do is unlimited.”

DATA FILE

Herb Farmer

O*NET:11-9013.00 D.O.T.:405.161-018 HC:REI

WORK DESCRIPTION

Grows and sells hydroponic herbs—buys seeds, chemicals, fertilizers, and other materials and equipment; plants seeds; monitors feeding and irrigating of plants; monitors greenhouse temperature; harvests herbs; sorts, packs, weighs, and labels herbs; ships or delivers products to customers; markets product; keeps financial records.

WORKING CONDITIONS

Indoors in greenhouse to plant, tend, and harvest crop. In packing area to sort and pack. May travel locally to deliver product.

PLACES OF EMPLOYMENT

Self-employment; farms; nurseries.

PERSONAL CHARACTERISTICS

Liking for physical labor; strength; stamina; patience; persistence; self-motivation; independence; responsibility; organization; flexibility; business sense; verbal ability.

EDUCATION AND TRAINING

Experience working with plants and courses in hydroponic farming recommended. Business experience helpful.

JOB OUTLOOK

Little or no change.

SALARY RANGE *U.S. median wage*

\$32.73 per hour, \$68,090 per year, depending on size of farm and success of business.

RELATED OCCUPATIONS

Hydroponic Tomato Farmer
Plant Nursery Owner
Food Technologist

FOR MORE INFORMATION

The subject of this biography is not available to answer personal inquiries. For more information addresses are current as of publication date.

Ask your county extension agent about agriculture/hydroponic training programs in your state.

Herb Growing and Marketing Network
Web Site: <http://www.herbworld.com>

International Herb Association
Web Site: <http://www.iherb.org>

American Horticultural Society
Web Site: <http://www.ahsgardening.org/>

Hydroponic Society of America
Web Site: <http://www.hydroponicsocietyofamerica.org/>

National Association for the Self-Employed
Web Site: <http://www.nase.org/>

To find information about similar careers, see *Voc-Bio's Pathways* or *Cluster* search, an encyclopedia, or books on careers found in your library, career center, or counseling or placement office. Look up the following words:

Agriculture, Farm, Farmer, Foods, Garden, Greenhouse, Herbs, Horticulture, Hydroponics, Plants, Produce. Also see the Agribusiness, Consumer and Home Economics, and Environment and Natural Resources Careers clusters.

WHAT YOU CAN DO NOW

Visit hydroponic herb farmers and other types of farmers and talk with them about their work and lifestyle. Get a part-time job working at a hydroponic or herb farm or at a nursery. Plant an herb garden. Learn to cook with herbs. Join Future Farmers of America. Join 4-H and participate in horticulture projects. Read books about herbs and gardening. Take classes in botany, agriculture, chemistry, marketing, general math, bookkeeping, industrial arts, and economics.

LIFESTYLE IMPLICATIONS

A self-employed herb farmer works long hours, including evenings, weekends, and holidays because plants require daily care and monitoring. The long hours cut into leisure time. However, there is some flexibility in scheduling work hours to make time for family and personal pursuits.