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Diversify Your Production with Vegetables

Growing vegetable garden plants can be a profitable addition to your greenhouse business, with the right product mix, market and timing. It's not as easy as you might think, but it *can* be worth it.

Vegetable gardening has become one of the fastest growing categories in the last few years, and many believe it's no passing fad. Now more than ever, U.S. consumers care about where and how their food is grown, with 70% making it a priority to buy local produce and 45% harvesting produce from their own gardens in 2011, according to a recent W.K. Kellogg poll. After all, what could be more local than your own backyard?

In 2011, U.S. gardeners spent \$29.1 billion on their own gardens, according to the National Garden Bureau's 2012 Gardening Survey. That number was up 2% over 2010 figures, and included spending by 3 million more gardeners in 2011.

With consumers' increasing health and economic concerns, plus a general enjoyment of growing their own food, the future looks bright for herb and vegetable gardening.

VEGETABLE DOLLARS AND SENSE

While vegetables herbs are currently an industry growth area, expand your greenhouse production into garden vegetables with caution — don't grow too much, too soon. Because vegetables are much less expensive to grow than most ornamental bedding plants, it's easy for growers to get carried away by the possibilities.

"A premium, branded petunia seed costs 100 times more than a seed for a relatively established tomato variety," explains Lloyd Traven, who owns and operates Peace Tree Farm in Kintnersville, Pa. with his wife and partner, Candy. "But a vegetative petunia cutting can easily cost 50 cents, compared to a



Vegetable garden plants like rosemary and basil can be a profitable crop to add to your greenhouse.

tomato seed that costs one tenth of a cent or even a penny, and that's where it really makes a difference."

Because vegetable seed is cheaper, profit margins can be much higher, when you consider time and cost inputs. Ornamental bedding plants require more time in the greenhouse, more inputs and labor, yet a seed-grown petunia from an 1801 tray might yield an average of \$1.00, versus a seed-grown tomato, which could yield \$1.50 with less time, fewer inputs and cheaper seed, according to Traven.

So what percentage of your greenhouse crops is a good starting point to dedicate to vegetables? No more than 5%, says Scott Mazingo, product manager of Burpee Home Gardens, a long-standing, premier brand of garden vegetables and herbs.



Herbs: Howard Prussack grows herbs like this basil with a bench-top hydroponic tube heating system from Delta T Solutions.

“If you’re brand new to growing vegetables, 10% is aggressive. Five to 7% is probably a comfortable, manageable solution,” he says. “It’s easy to think ‘Veggies are cheap, so let’s go crazy,’ but it’s not that easy.”

Traven agrees that 5% is realistic, and says growers should be conservative and careful not to glut the market with veggies, which would drive down profitability. “In this industry, we get so desperate to get out of a rut that we get really excited about a category we hear is successful,” Traven says. “Some people will switch over to vegetables and do too much. If you take just 10% of U.S. production of bedding plants and turn that over to veggie plant production, you’re talking millions of plants.”

Realistically, the demand isn’t high enough for those kind of numbers, Traven says, considering that many consumers who are interested in veggies are urban dwellers and suburban homeowners who only want a few plants to grow on their patio or a small, backyard plot. They don’t have room for 24 plants. For growers to switch over to that level of production,

that’s what everyone would have to sell, per customer, to turn a profit.

Instead of volume, consider producing high-quality, premium items. Most urban and suburban gardeners will pay more for a mature plant that is established and going to produce vegetables earlier than their seedling counterparts. “Make it wonderful and make it a fair price,” says Traven. “Consumers will spend money on a good plant. They don’t all have to cost 52 cents.”

THE BEST CROP MIXES

When it comes to product mix, stick to the basics to start: Tomatoes, peppers, lettuce, melons, eggplant, and soft squashes like zucchini. Everyone likes to try their hand at tomatoes, and it’s a good idea to grow several varieties for different needs and uses. It’s smart to include universal varieties that will sound familiar to consumers, but a more important consideration is whether varieties will work in your growing zone and climate.

Traven recommends one special tomato variety from Vegetalis, a plant that can be

grown inside homes year-round, even in the frozen Northeast. Ideal for apartment and condo dwellers, ‘Sweet ‘n Neat’ is a cherry variety that has proven performance indoors.

Lettuce and mixed greens are crops that consumers love for their practically instant gratification thanks to quick regrowth, and growers enjoy growing for their consistent cropping and fast turnover that result in better profits. Premixed lettuce varieties like ‘City Garden Mix,’ ‘Global Gourmet’ and ‘Gourmet Blend’ from Ball Horticultural Co. look great in containers and can provide year-round revenue.

Specialty patio crops from Sakata Seed America include a variety of leafy and mixed greens, including ‘Bull’s Blood’ Beet, ‘Peppermint’ Swiss Chard, ‘Savanna’ Spinach Mustard, as well as ‘Red Robin’ Dwarf Cherry Tomato and three Hungarian cheese peppers. These unique items mix up the traditional lineup of starter plants and offer a niche for the growing trend of container gardeners.

Burpee has introduced the Boost line of high-nutrition super veggies that contain more antioxidants and vitamins, and caters to the health-conscious set. Consider this veggie collection as a potential niche for higher sell-through and premium sales.

Herbs are a profitable niche for year-round greenhouse crop sales that are also attractive as ornamental containers or mixed in with other bedding plants. The top must-have herbs are: Basil, sweet basil, rosemary, thyme, parsley and cilantro. Also consider growing larger pots and patio containers with well-established vegetable plants and veggie and herb combinations, as well as kitchen gardens and countertop herb stations. These items

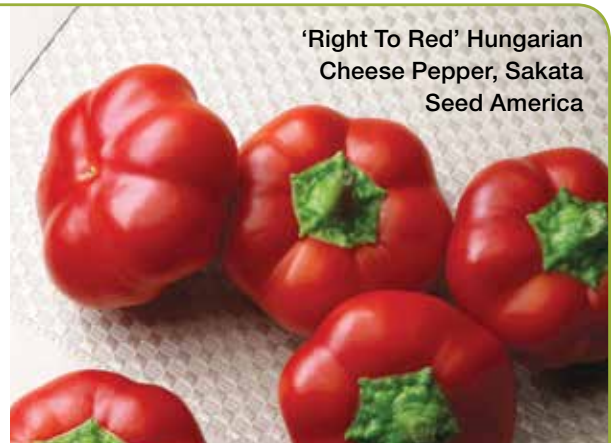
The Starting Line-Up

TOP VEGGIE CROPS

- Tomatoes
- Peppers
- Leafy greens (lettuce, mixed greens)
- Melons
- Soft squashes (zucchini)
- Eggplant

TOP HERB CROPS

- Basil
- Sweet basil
- Rosemary
- Parsley
- Thyme
- Cilantro



‘Right To Red’ Hungarian Cheese Pepper, Sakata Seed America

may take slightly more time to finish, but will provide quality and serve as premium items for higher margins at retail.

TIPS FOR GROWING ON

Growing veggies is very different, culturally, from growing ornamentals. They grow faster and colder, need high light and hardening off, and require much more space than ornamental plants. Then there's the issue of timing. From planting to shipping, some crops can be finished in as few as five weeks. While such fast turns can be profitable, if not timed right, they can also mean a loss.

Unlike ornamental bedding plants, growers do not have the luxury of a full arsenal of chemical tools at their disposal, as very few plant growth regulators (PGRs), pesticides and other conventional controls are labeled for greenhouse use.

5%

A good, comfortable yet realistic starting point for growers who are new to producing vegetables is no more than 5% to 7% of greenhouse production.

Vegetables grow quickly, so careful record keeping, crop timing and expedient shipping are important.

"Many growers think you can hold vegetables and have them ready any time," Mozinga says. "With ornamental bedding plants, we're so accustomed to getting the crop ready for so long, then hitting it with a PGR and shipping as needed, but veg-

etables can't be produced that way. PGRs aren't as available and vegetables grow like weeds with enough light and water. There's nothing you can do to slow them down other than using environmental controls. Instead, growers have to schedule in multiple sow dates and ship accordingly."

Vegetables grow much cooler than most ornamental crops but they can germinate alongside ornamentals, says Mozinga. Once germinated, most seedlings like to grow at a temperature of 55°F to 60°F, which makes it easy for them to be grouped together in a cooler greenhouse dedicated for that purpose. If a separate greenhouse isn't available, growing vegetables in a cooler zone or bay within the same greenhouse works, as well. Vegetable crops also require direct, high light levels, and will not thrive under overhead hanging basket carousel systems.

DTS Grower Profile

PROFILE: Howard & Lisa Crawford Prussack, owners, High Meadows Farm, Putney, VT.

MARKET: High Meadows grows all-organic herbs, patio vegetables, hanging baskets and perennials to Whole Foods stores, markets, and garden centers in Vermont, New Hampshire, Connecticut, and Massachusetts. The operation has 23,000-square feet of greenhouses dedicated to herbs and vegetables, as well as separate greenhouses for raspberries and tomatoes.

READY FOR RETAIL: Before committing to growing vegetables, it's best to ensure you can sell them. Prussack says beware of the obvious retail outlets. Whereas grocery stores and farm markets may be obvious target markets for your crops, they're also obvious to other growers. That's why he has aimed to sell his herbs and vegetables at less obvious retailers like co-ops, preferring, not to edge other growers out of their markets, and has expanded his business over the past 40 years by servicing his clients well.

SECRET TO SUCCESS: CROP TIMING

"Keep pristine planting records for your herbs and vegetables, as timing is crucial and makes a difference at



different times of the year. Vegetables generally want it cooler and they can grow really fast if temperature isn't controlled, sometimes 7 to 10 days from seed to shipping, so you really have to be on top of it if you're shipping to wholesalers. The sales window for garden vegetables is very small, typically only six weeks, then suddenly it slams shut and that's it, you're looking at benches of tomatoes."

DELTA T HEATING PROFILE: Greenhouse built in 2009 has open roof and sides, and a complete Delta T Solutions hot water system with 400,000 BTU stainless steel Spectrum boiler; 28 rolling benches feature bench-top tube heating.



'Sweet 'n Neat' cherry tomato, Vegetalis

Lloyd Traven's Tips For Success Growing Veggies

1. Pick varieties that work in your area.
2. Get good seed. Don't scrimp on quality.
3. Create proper conditions for germination.
4. Don't over-feed vegetable seedlings.
5. Don't try to grow veggies too fast or too warm. Slow them down and run them cold and hard.
6. Harden off before shipping.
7. Commit to consumer success.

Traven grows herbs and vegetables in eight different heating zones within his glass greenhouse, using hydronic heating systems. He says he likes to keep air temperatures cool, while running root temperatures warmer. This way, roots are growing and developing while the foliage is grown cool, which promotes optimum plant health. Howard Prussack, who together with his wife Lisa, co-owns and operates High Meadows Farm Putney, VT, also uses hydronic heating systems to grow his herbs and vegetable. See the "Grower Profile" to learn what products work well for his operation.

To finish plants before shipment, they need to be hardened off at colder temperatures, to develop a good root system, improve plant strength and ensure superior garden performance.

"Grow plants as cold and dry and bright as you dare," Traven says. "It's better to grow vegetables low and slow or lean and mean, and the result will be much better plant material that won't fall apart in the garden. Many growers think they have to grow tomatoes hot in the greenhouse, to push them out as quickly as possible, and that's good for growers looking for turnover, but not great for consumers.

As an industry, we need to stop concentrating on product, and start focusing more on the consumer."

SUSTAINABILITY STEWARDS

Both Traven and Prussack grow certified organic herbs and vegetables, and pride their operations on cleanliness and sustainability, thanks to the extensive biological control systems they have developed within their greenhouse operations.

"We spend a lot of money on bio-control, and natural predators, but we also save money on inputs and produce healthier plants," Prussack says.

Traven agrees and adds that greenhouse production of garden vegetables is a "whole different animal" than growing ornamental bedding plants, and should be treated as such. He says investing in sustainable growing practices that will produce high-quality garden vegetables is worth the extra expense and effort."

"Remember what we sell," Traven says. "We sell plant material but ultimately, the only product we have is consumer success. We can't sell them vegetable plants that fall apart in the garden, and expect that they're going to come back and buy more." ▲



Global Gourmet Salad Mix, Burpee Home Gardens



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