Horticulture

Tips from Berry Patch Farm for bountiful berries And flavorful fruit year round

by Sally Worley

Berry Patch Farm owners Dean and Judy Henry grow great berries and fresh fruit year round, and they recently shared their secrets with PFI staffer Sally Worley. Dean and Judy have been growing strawberries on their farm near Nevada since 1970. They planted the strawberries and apple trees on their new farm before they ever lived there.

"Our sons were one of the main reasons we decided to start farming. We wanted them to experience the work and satisfaction that farm life can bring," says Judy.

Soon after, they built a house and moved with their three sons to the farm.

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"From the time we opened for business, people voiced their wishes for raspberries and cherries, so we put those in early on," she adds. Currently, Berry Patch Farm grows eight acres each of strawberries, raspberries, apples and blueberries. They also have cumulatively eight acres of associated cane fruits, such as currants, gooseberries and blackberries, as well as, some tart cherry trees, pumpkins and gourds. The Berry Patch also grows year-round food in their greenhouses and high tunnels.

Mike Henry, Dean and Judy's son, and Lee Matteson farm with the family full time. Everything they grow is sold pickyour-own, except for their greenhouse crops. This makes it possible for the Berry Patch to grow and sell more than if they were harvesting everything themselves.

In addition, the Berry Patch sells product through a farm stand, at local farmer's markets and through two online cooperatives. They also provide fruit shares for three local community supported agriculture (CSA) programs.

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From left: Mike, Judy and Dean Henry, and Lee Matteson stand by newly transplanted tomatoes in their greenhouse.

Strawberry advice

"Strawberries were our first crop and what we're best known for," Dean says.

Bed prep — Before planting matted row strawberries, the Berry Patch plows and soil tests in the fall to see if additional nutrients are needed. According to Dean, strawberries like slightly acidic soils with high organic matter. "Our soil has the right pH for strawberries. It was 6.8 when we began and remains exactly that."

Establishment — The Henrys typically plant strawberries in a matted row system, one row per bed 16 inches apart with 38 inches between rows. "Space between rows will vary from farm to farm, depending on the size of your machinery," said Dean. In a matted row system, strawberries are planted in the spring, deblossomed the first year, and the first crop is harvested the subsequent spring. The Berry Patch aims for three years of commercial harvest from each planting. "The plants are in the field four years, then are rotated to something else for a minimum of three years before strawberries can be planted again. That's a seven-year commitment for three years of crop," said Judy.

To circumvent these time constraints the Henry's have recently started experimenting with plasticulture. "At this moment, we don't yet know how plasticulture will work for us," said Dean

Plasticulture — is gaining popularity due to higher yield, better berry quality and faster return. In a plasticulture system, you typically harvest berries nine months after planting, versus 14 months in a matted-row system. "With plasticulture, plant spacing is built into the system," explains Dean. Over the years, matted row strawberries start to crowd each other out, resulting in a higher quantity of small berries. Plasticulture puts energy into the growth of one strawberry crown rather than into runners to create more crowns.

The Berry Patch spaces their plants every 12 inches, two rows per bed in their plasticulture strawberries. They plant these in early fall, harvest the next spring, then pull them out of the



ground. "Plasticulture strawberries are treated like an annual," says Dean.

Dean overhead irrigates his strawberries as needed. "A prerequisite for commercial strawberries is reliable water. Not a surface pond or river," says Dean. "We use well water."

Cultivars — The Berry Patch grows multiple strawberry cultivars in order to extend the harvest season. Current cultivars they grow include Honeoye, Jewel, Sparkle, Ovation and Cabot. "For those who know berries," Dean says, "Sparkle is their favorite. It's soft and small, so you'll never find it in the store. But it has the best flavor."

The Berry Patch also grows some dayneutral strawberries that grow regardless of day length. These provide a fall season of strawberries. They currently grow mainly Albion day neutrals, a California cultivar that has been widely released.

Harvest dates — The Berry Patch aims for a five-week main harvest season for strawberries beginning in early June.

Pests — "Strawberries primarily suffer from botrytis in Iowa," Dean says. "We typically get away with spraying just one fungicide, such as Captan, at bloom." The Berry Patch typically applies a widespectrum insecticide the fall prior to strawberry harvest to help control the 20 pests that like strawberries. The top two being crown borers and tarnish plant bugs.

The Berry Patch avoids soil diseases with crop rotation. "We used to apply methyl bromide. It was very effective, but we didn't like applying it to our land," says Dean. "Instead we are incorporating cover crops to biofumigate the ground."

The Berry Patch is trialing mustard in between strawberry crops to see if allelopathic properties of mustard roots will naturally biofumigate the soil, allowing them to rotate back to strawberries sooner than three years. "Last year we planted strawberries where mustard had been planted for one year between strawberry crops, so this spring we will see if it worked," says Lee Matteson. In addition to mustard, Dean and Judy have used marigolds and tillage radish to biofumigate. This year they are going to try arugula: "According to research, nematodes starve to death on arugula. We're excited to try it out," says Dean.

"Strawberries are a great crop to grow because they are extremely popular and bring a good return," he adds. "However, strawberries are hard work, are labor intensive and entail nights up controlling frost with overhead irrigation."

Best blueberry practices

Ground preparation — The Berry Patch starts preparing land two years before planting blueberries. First they plow down a lot of organic matter, then incorporate wood chips, then treat with sulfur. "Give yourself time to get the soil right," says Dean. "Text book pH recommends less than 5; 4.5 or 4 is better."

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Establishment — The Berry Patch spaces their blueberry plants four feet apart with 10 feet between rows. They deblossom the blueberries the first two years and harvest their first blueberry crop three years after planting.



The Friday hoe, above, allows operators to steer with their feet while hand weeding strawberries.

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The blueberries are set up on a drip system. Their shallow roots require regular watering, even after they are established. Dean recommends using vinegar in irrigation water for a temporary fix if your pH is too high, and iron chelate to amend the pH after the blueberries are planted.

Cultivars — The Berry Patch has all high bush blueberries. They grow several blueberry cultivars to extend harvest season. Some favorites include Duke, Blue Crop, and Patriot.

Pruning — The Berry Patch prunes blueberries to retain vigor, thin and control size. "Blueberries bear best on one to three year old wood," said Dean. He expects his blueberries to produce for approximately 25 years.

Pests — Since blueberries aren't widely produced in Iowa, Dean feels that he's living on a blueberry pest honeymoon and hasn't had serious issues. Mummy berry, blueberry maggot and shoe string virus are major pests for commercial blueberry production, but none of these are a big problem at the Berry Patch. Japanese beetles can cause damage, and the Henrys control them with an organic Pyganic spray.

As far as they know, Dean and Judy operate the only pick-your-own blueberry operation in Iowa. They feel there is room in the market for more Iowa blueberry production, but know that the five-year wait for revenue off plants inhibits some farmers. "If you are willing to plant the berries in peat moss, you don't have to wait two years while preparing the soil, but the peat moss will set you back financially," says Dean.

Worry-free raspberries

Ground preparation — The Berry Patch simply discs up the ground and plants. As with the rest of their farm, they soil test and amend if needed, but raspberries aren't heavy feeders. "Fall raspberries (primocane) need more nitrogen and don't last as long. Summer bearing (floricane), you can't get rid

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of those. If thinned properly and kept healthy, they will grow indefinitely," says Dean. Raspberries like well-drained soil.

Establishment — In row raspberry spacing is less important than for other fruits. You can plant the canes anywhere from one to three feet apart, depending on how quickly you want them to fill in. "If you want them to fill in fast and compete with weeds, plant them closer and thin them out later," says Lee. Space between rows should be eight to 10 feet. Irrigation is not necessary. Judy recommends, "Keep a raspberry patch from becoming overgrown. Thin plants to eight to 10 inches between canes and mow into hedges."

Cultivars — Raspberries are categorized as primocane, which set flowers and berries on new and one-year-old growth, and floricane, which flower on oneyear-old growth. Dean recommends beginning farmers start with primocane raspberries because they can generate cash flow the same year as planting.

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Primocane raspberries are less labor intensive, because you typically mow them in the spring. In floricane raspberries, you prune out the old growth by hand. Their harvest season is earlier than floricaine raspberries.

The Berry Patch grows both primocane and floricane raspberries to extend their season. "Floricane allows us to have raspberries to harvest alongside early blueberries, and primocane provides a fall harvest when it is more pleasant to pick," said Judy.

Customers like to see black and red raspberries, but most of the Berry Patch's plants are red raspberries. Some of their favorites include Heritage, Boyne, Polana, Royalty, Autumn Britten and Autumn Bliss.

Pests — Japanese beetles favor raspberries and navigate to them during bloom and fruit set. Pyganic works marginally and wears off quickly. Anthracnose is prevalent in

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Machinery makes it possible for the Berry Patch to produce more than 40 acres of fruit. With the four row transplanter above, eight people can plant 5,000 plants per hour.

commercial raspberry production and can be avoided with clean plants, sun and air circulation, and fungicides. The Berry Patch has increased its use of fungicide lime sulfur in the spring to help control anthracnose and scale. "It is one of the simplest ways to control inoculums for disease but is disagreeable to work with as a spray, and it ruins your equipment," says Dean.

Wild blackberries can spread diseases to raspberries so keep them a minimum of 250 feet from raspberries.

Growing in a greenhouse

The Berry Patch's primary winter greenhouse is heated by a wood heater and contains raised beds that are insulated beneath the topsoil with hot water tubing running above the insulation to warm the soil. In early March, crops include lettuce, kale, arugula, spinach, cabbage, tomatoes, strawberries, raspberries, beets, radishes, broccoli raab and tomatoes.

Their biggest winter crop is a salad mix. Six rows are planted per bed, and Lee estimates he harvests 12 pounds per row per cutting. He takes three cuttings per planting for a total approximate harvest of 180 pounds of lettuce mix per 96-foot bed. Their salad mix contains a Johhny's Seeds lettuce mix of red kale, white kale and arugula.

The first round of tomatoes is planted at the end of February. Prior to adding tomatoes, the greenhouse is heated to 45 degrees, then raised to 55 degrees once the tomatoes are transplanted. Low covers over the raised beds retain the heat generated in the soil.

Raspberries are planted at the end of December. The Berry Patch should have raspberries and tomatoes for sale mid May.

"We operate the greenhouse all winter," says Lee, "and are on our third rotation of greens." Since Berry Patch Farm is one of the few that provides produce for sale year round in Central Iowa, it can't supply enough to meet demand. "We have an additional greenhouse that is heated with propane," says Dean. "We also have three high tunnels over black raspberries to improve overwintering. We have a high tunnel full of spinach and plans for a raspberry high tunnel." Dean likes how these structures extend the season and provide additional income during the main season: "In the last two years, it's been great growing indoors while field conditions have been lousy."



New website helps farmers find land and Landowners find farmers

PFI has launched a NEW "Find-A-Farmer, Find-A-Farm" website to assist beginning farmers and landowners to network online and start conversations about land to rent or purchase.

Within the PFI membership, there are more than 100 friends of farmers, many of whom are landowners. More than 40 have called our office during the past two years looking for beginning farmers to farm their land. Within the PFI membership, we also have more than 350 lowa beginning farmers.

My farm will be perfect for someone else someday ... I want to know that eventually it will go to someone who will actually farm it and who will do so sustainably. Linda Long

Land is one of the top five needs of these beginners, according to PFI's 2008 beginning farmer survey. Most of these beginners farm some ground now but need more or different land, while others are looking to start planting their first acre.

"The site is good looking and easy to use, with intuitive functionality," says PFI member and land seeker Frank Stevenson. "This is exactly the right tool, at exactly the right time, for exactly the right souls seeking to connect eager starting farmers with equally eager landowners."

The goal of this site is to help these two highly valued groups within the Practical Farmers of Iowa network make a connection and start a conversation with one another.

This service is entirely FREE; however, participants must have an email address and

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PFI Find-A-Farmer Website

register on the site to view details about each other. This NEW website employs a secure message system that keeps users' identities private until they choose to share it.

> Each land owner or land seeker completes a basic profile that identifies the location, amount of land, land type. building improvements and utilities wanted or being offered. Next, the registrant chooses the enterprise and production practices, and finally, the timeline and transaction preferences preferred.

PFI is steadfast in its determination to help the next generation of Iowa farmers and plans to analyze the effectiveness of this site in helping beginners access land. At the same time, we recognize that land is only one of the challenges faced by beginning farmers. That's why PFI also

by Luke Gran offers the Savings Incentive Program,

Farminars, Annual Conference, Field Days, Workshops and more, to help beginners overcome other challenges.

Landowner Linda Long, Cresco, IA, tested the site in March. "The Find-A-Farmer website is terrific and extremely easy to use," says Linda. "I don't have a big farm, just a few acres, but it's a unique place and I want to protect it. I want to know that eventually, it will go to someone who will actually farm it and who will do so sustainably. Find-A-Farmer can help me plan for that.

"My farm will be perfect for someone else someday, just as it is perfect for me now," she continues. "The Find-A-Farmer site puts me in touch with a lot of people who have the same values I do, more people than I would ever be able to reach otherwise. It is a great resource. Thanks, PFI!"

Start your search today! Register for FREE online at www. practicalfarmers.org/findafarmer



This image shows the home page, including a map of beginning farmers and landowners.

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