

from Backyard to BIG TIME

You don't have to be a plant breeder to enjoy ownership of a new best-selling garden plant.

Fortuitous finds can yield significant rewards.

BY DOREEN G. HOWARD



NOT ALL NEW plant introductions are the results of sophisticated breeding programs. Many illustrious plants were serendipitously discovered in someone's garden or among a batch of seedlings potted up at a nursery.

If you have found an unusual seedling or a "sport"—a genetic mutation that exhibits very different characteristics from the parent plant—in your backyard, it's quite possible you could profit from your discovery, or at least have the satisfaction of knowing that your plant's special qualities will grace the gardens of likeminded enthusiasts.

Plant breeding is "the purposeful, goal-directed application of genetic understanding to a crop's improvement," explains Richard Lighty, former director of the Mt. Cuba Center for the Study of Piedmont Flora in Greenville, Delaware.

Plant selection, on the other hand, may or may not involve breeding. Some plants are simply selected when a gardener notices an unusual trait—a compact form, variegated leaves, flowers of an unusual color, or a tolerance to heat when others of the same kind languish. "Most introductions by amateurs," says Lighty, "are simple selection of possibly worthwhile horticultural variants—sort of a serendipitous spin-off from gardening." The key to such discoveries, he notes, is keen observation.



Opposite: Walt Stackman discovered the Golden Shadows® dogwood in his garden. Above: Rita's Gold™ Boston fern was a chance find by nursery owner Rita Randolph.

RECOGNIZING OPPORTUNITY

An overnight trip to buy plants is a vacation for Rita Randolph, second generation owner of Randolph's Greenhouses in Jackson, Tennessee. It was on one of these jaunts in the early 1980s that she first spotted an attractive Boston fern (*Nephrolepis exaltata*) with golden fronds. The fern caught her eye again a dozen years later at a small nursery in the middle of Tennessee. The nursery soon went out of business, but Randolph had already bought the ferns and was propagating them. "Every time I showed the gold fern at lectures and slide shows, I was amazed at how many true plant nerds had never seen it before," Randolph says. "This happened over and over; even professional horticulturists and those who travel abroad extensively had not seen it." She knew she had a winner, and now Rita's Gold™ (named by University of Georgia horticulturist Allan Armitage, who trialed it for Randolph) sells briskly at numerous garden centers and through the mail from Randolph's Greenhouses.

"Any industry lives and dies on innovation. That's why new plants are so valuable to the horticulture industry," says Brian Corr, new crops development manager at Ball Horticultural Company.

Dan Heims, president of Terra Nova Nurseries, Inc., in Tigard, Oregon, knows this, too. When he spotted a variegated Jacob's ladder (*Polemonium caeruleum*) under a greenhouse bench as Floyd McDonald showed him around Morning Glory Farms in Fairview, Tennessee, Heims recognized a unique plant with profit potential. 'Snow and Sapphires' Jacob's ladder has been a mainstay in Terra Nova's catalog since 1999. McDonald, a motorcycle enthusiast, made enough money from the royalties to fulfill the dream of owning a fully equipped Harley-Davidson motorcycle, before his death in 2005.

Walt Stackman found Golden Shadows® pagoda dogwood (*Cornus alternifolia* 'Wstackman') in his Illinois garden, where he hybridizes daylilies. It was introduced by Spring Meadow Nursery, Inc., this year.

The 'Sweet Dreams' tickseed is a sport that Mark Leonard, a nursery



'Snow and Sapphires' Jacob's ladder, top, a variegated cultivar of *Polemonium caeruleum*, was spotted under a greenhouse bench by Dan Heims, above, of Terra Nova Nurseries.

owner in Loomis, California, spotted in a bed of *Coreopsis rosea*. Instead of tossing out the strange-looking stem, he took cuttings and planted it in a separate container to observe its growth. When the plant bloomed, the white flowers, touched with raspberry, were larger and more colorful than those on the mother plant. On the advice of a former college professor, Leonard partnered with Blooms of Bressingham to introduce and market the plant.

These success stories didn't happen automatically. Each gardener proceeded cautiously to protect his or her find and recruited a commercial partner to propagate and market the plant. Randolph entered into agreements with large wholesale growers to propagate and distribute Rita's Gold™ Boston fern. McDonald traded ex-

clusive rights for development and distribution of his find in return for royalties. So did Stackman and Leonard.

PLANTS OF DISTINCTION

If you think you've found a unique selection, take a realistic look at your discovery and evaluate just how distinct and desirable it actually is. Tim Wood, product development manager at Spring Meadow Nursery, says he gets at least 10 phone calls a year from gardeners who have found a shrub with variegated or yellow foliage instead of the normal green. "It takes more than yellow or variegated leaves to be commercially viable," he says.

"It takes more than one superior characteristic for a winner," agrees Jim Berry, formerly of Plant Development Services, Inc., a company that offers market assessment and plant introduction services to breeders. Berry distills the characteristics of a distinctive plant to three F's—foliage, form, and flowers. Does the foliage have a distinct shape or color and is it disease resistant? Does the plant develop an unusual shape, narrow growth habit, smaller stature, or weeping form that sets it apart? How about the flowers? Are they more intense in color than others, or does the plant bloom more frequently or profusely?

Gary Gosset, product development manager at Terra Nova Nurseries, says that among the attributes he seeks in new plants are "variegated and gold foliage that does not burn, red to purple leaves on normally green plants, new bloom



Coreopsis rosea 'Sweet Dreams' was discovered by nursery owner Mark Leonard.

colors, dwarf forms of tall plants, and better branching patterns of normally floppy plants."

Once you feel confident that you've found something worth sharing, it's time to find out how many gardeners might agree with you.

ASSESSING THE MARKET

"Is your plant right for the mass market or does it appeal only to plant nerds? That's the first question to ask yourself," says Corr. If you want to make money, wide distribution is the only way to do it.

Beautiful plants sold in small quantities to collectors may be satisfying, he adds, but their royalties are a fraction of those paid on plants bought in every garden center across the country. Plants with mass market potential must meet several standards, however.

People buy plants with which they are familiar. They may have different colored flowers or foliage, or a different shape, but familiarity breeds sales. Among annuals, top sellers every spring are impatiens, pelargoniums, petunias, and members of the viola family, including pansies, according to Corr.

Consumers seek perennials that are survivors and thrive in a wide range of conditions. Those that sell briskly include coreopsis, heucheras, daylilies, and coneflowers. Many customers will purchase a breakthrough cultivar of a flower they know such as Wave™ petunias or 'Sweet Dreams' coreopsis, but fewer are likely to buy a new cultivar of a less common perennial such as bear's breeches (*Acanthus mollis*).

If your plant falls into the "less common" category, go to someone like Tony Avent, owner of Plant Delights Nursery, Inc. "I'm the person who sells to plant nerds," he says. "If the big breeders turn you down, come to us." He adds, "Any new plant you offer has to fit within the current trends, however. Timing is everything in plant production. Otherwise, your plant has no commercial value."

New plants for mass markets must also fit well into a grower's production regime in order for a plant company to make a profit—and you royalties. Seeds or vegetative cuttings are the preferred method of propagation. Tissue culture adds cost and time. However, its profit potential may offset the expense.

FIND THE RIGHT PARTNER

If you decide your plant has mass market potential, the least stressful path to profit is to partner with a large plant company that is experienced in plant protection, trialing, production, and marketing. So how does a novice go about finding the right commercial partner? "Trust your gut, but get the specifics in writing," Corr says.

Start with a Trialing Agreement or Material Transfer Agreement. (See "Protect



Tissue culture, a technique in which plants are rapidly propagated from tiny cuttings or tissue samples, can speed the process of bringing new plants to market.

Your Plants” on page 20 for details on these legal documents.) Most plant companies will draw up the agreement for you if they are interested in your plant. Terra Nova Nurseries routinely does so and follows up with all other legal protections required, such as the plant patent. “We even pay the postage,” says Heims. Costs, including the patent, are deducted from your first royalties. It usually runs about \$2,500, he says.

Never send a plant to a company without a contract, Wood cautions. Send a photograph of it first to determine if there is interest. “Include the disclaimer that this is not an offer for sale,” he says. That way the clock is not ticking on patent limitations. You only have a year from the first time a plant is offered to the public until a patent application must be filed. After you reach an agreement, then it’s time to send your plant to your partner. “Don’t send us just a single plant. We need at least three divisions to prove it will propagate,” Heims explains. “You should retain plant material, too, in case what you send is lost or damaged.”

Put some effort into naming the plant, too. A bad name can kill sales, Berry says. “Don’t name it after a relative. This is a consumer culture in which the right name will get people to spend money on a plant with an appealing or clever name.” *Euphorbia* ‘Tasmanian Tiger’ and *Hosta* ‘Diana Remembered’ are good examples of marketable names.

Interview plant companies just as you would a potential employee or a babysitter for your children. Ask for references from other individuals who have partnered with them. Make sure the company has the production experience to handle any problems that may arise. Choose one that has demonstrated success with your type of plant, such as a shrub or bedding plant producer. And, most importantly, make sure there is excellent two-way communication between you and a potential commercial partner.



Two new river birches (*Betula nigra*)—weeping ‘Summer Cascade’, above, and variegated ‘Shiloh Splash’, left—were discovered by John and Danny Allen of Shiloh Nursery.

vices. Plants like ‘Hillside Black Beauty’ *cimicifuga*, Encore Azaleas®, and ‘Blueberry Sachet’ *nemesia* have come to market through breeder services.

Another option for getting your plant to market is to employ a breeder service. Such companies do all the work to put your plant into commerce. They assess its market value, test and trial it, secure patents and other legal protections, and license the plant to wholesale growers for distribution to consumers. These agents take a commission from sales for their ser-

Another alternative is to partner with a university to get your plant to market. This is the route John and Danny Allen of Shiloh Nursery in Harmony, North Carolina, took when John discovered a couple of river birches with unusual features in the nursery. He transplanted and observed them for a while. “John has a very keen eye and is always on the lookout for

PROTECT YOUR PLANTS

Until a newly discovered or created plant is legally protected, do not exhibit it at shows, on the Internet, in print, or offer it for sale. Doing so shortens your timeline for legal protection. You have a year from the first time it is offered to the public for sale until the patent application must be filed. Here are the types of plant protection available:

U.S. Plant Patent For new and distinct varieties of asexually reproduced plants except tubers. The patent holder has sole authority to propagate and sell the patented plant or to assign those rights to others. It is good for 20 years from the date of application. For more information about plant patents, visit the National Association of Plant Patent Owners website at www.anla.org/industry/patents/index.htm.

U.S. Utility Patent To obtain utility patent protection on a plant, people must have had a hand in the creation of the new variety that generally involves more than a mere crossing of two parental varieties. This form of protection can be expensive to obtain; however, it can have multiple claims of varying scope, including method claims.

Trademark If the anticipated returns on the plant are not likely to offset the expenses involved, an alternative is to trademark the plant name. Only the owner of the trademark can market the plant under that name, although he or she does not control propagation or sale of the plant under any other name. A patented plant can also have a trademarked name, affording significantly more protection. A trademark registration is good for 10 years and it is renewable. Be careful to ensure that the mark you choose is not identical or similar to a varietal name for the same plant or related varieties.

Plant Breeders' Rights (foreign plant protection) To protect your plant in foreign markets, you will need to comply with the regulations of each country. In order to be viable, applications for protection must be made in a timely manner (the time varies from one country to another). The grace period allowed before filing for patent protection in the United States is not as generous as the grace periods available in most foreign countries.

Plant Variety Protection Act (PVPA) Certificate Used for sexually produced plants, especially open-pollinated ones and hybrids other than F₁ generations, and tubers. It is most commonly used for seed-produced vegetable and agronomic crops. The new variety must be distinct, uniform, and stable. A Certificate of Protection remains in effect for 20 years from the date of issuance. The cost of obtaining this certificate may be considerable.

Trialing Agreement or Material Transfer Agreement (MTA) This contract aims to protect your rights before or during the patent process—which can take longer than a year—when granting permission to a grower to trial the plant. The document outlines what is expected of both parties, denotes when the trial will begin and end, protects confidentiality, and designates what reports will be made. The agreement should stipulate that the grower cannot photograph, publicize, or sell your plant.

License Agreement Growers of patented plants must seek a license from the patent holder and pay a royalty fee. It's up to the patent holder or a representative to monitor and enforce these agreements.

—D.H.

something new," says Tom Ranney, the horticulture professor at North Carolina State University whom John contacted about five years ago to take a look at his selections. Ranney agreed that the two birches—one with a weeping habit, one with variegated leaves—were worth trialing. He facilitated the introduction process by securing patents for 'Summer Cascade' and 'Shiloh Splash' and connecting the nursery with potential licensees across the United States and in several other countries. In return, says Ranney, the Allens, "have been kind enough to donate half their royalties on these trees back to the university to support further research."

GOING IT ALONE

If your plant isn't right for mass marketing or you want to control the process, find a patent agent and a marketing specialist. You will still need experts to navigate legal and distribution hurdles. Barry Glick, owner of Sunshine Farm & Gardens in Renick, West Virginia, used Proprietary Rights International to get the plant patent on *Euphorbia* 'Jessie', an interspecific cross he selected and developed. Such companies take your plant through the entire legal process and protect it during every step. They draw up trialing agreements for you if others test your plant, obtain patents, secure protection for foreign markets, and prepare documents to license your patent to growers in exchange for royalties. In Glick's case, costs ran about \$2,500 for a U.S. Plant Patent.



Euphorbia 'Jessie' was selected and introduced by nursery owner Barry Glick.

COURTESY OF BARRY GLICK

TO MARKET, TO MARKET

Getting a plant to market is not a fast process. It will take up to five years, according to all the experts interviewed. "Some companies push to market in a bit over a year," says Gossett, "but to do a good job of production, greenhouse, and in-ground trials and production quantity ramp-up, it takes two-and-a-half to three-and-a-half years. That is with an easy plant."

Your one plant will have to be increased to 100,000 plants or more for introduction. If your plant is disease-free and easy to propagate, as was 'Sweet Dreams' coreopsis, it can be on the mar-



Randolph, who participated in the 2005 conference. "I learned that plants aren't just thrown out there. There are recognized steps in getting your plant to market," she says. "The conference helped me see more clearly down the road and meet the people I wanted to work with." If you go, bring an array of photographs of your plant and create a summary sheet about the plant's history and propagation in order to receive feedback from industry experts. For more information, visit the conference website at www.conference.ifas.ufl.edu/IPBC.

"There's a big need for new plants," says Buddy Lee, an independent plant breeder who developed the Encore Aza-



Plant breeder Buddy Lee, right, developed 'Autumn Chiffon', left, and other Encore Azaleas®, which bloom in spring just like other azaleas, then rebloom in the midsummer to fall.

ket in less time. "Gardeners should know that it takes time to build up numbers of plants to evaluate and to develop marketing plans," says Wood.

NETWORKING

The annual Independent Plant Breeder's Conference in Orlando, Florida, which is being held this year from November 17 through 19, helps amateurs learn how to profit from their plant discoveries. Hobby breeders of any horticultural crop meet plant producers, patent experts, scientists, and product development professionals representing companies such as Sakata, Ball Horticultural, and Proven Winners®. It's an excellent networking environment that has paid dividends for people like

leas® and works closely with Plant Development Services, Inc. Lee encourages gardeners to keep their eyes open for new plants, and to get those that are worthwhile to market. "Some of the best plants in the world may have withered in somebody's backyard because the gardener didn't recognize their potential," says Lee.

Introducing a new plant can be lucrative and satisfying if the business end is handled correctly. Your plant with potential may end up paying dividends sooner than you think.

Formerly garden editor for Woman's Day, Doreen Howard is now a freelance writer and editor. She breeds new tomato varieties in her Roscoe, Illinois, garden.

Resources

PLANT PRODUCERS

These companies consider new plants and have guidelines for submission on their websites.

Ball Horticultural Company,
www.balldiscoveries.com.

Blooms of Bressingham,
www.bobna.com/breeders.asp.

Chicagoland Grows, Inc., (847) 835-8301. www.chicagolandgrows.org.

Color Choice® at Spring Meadow Nursery, (616) 846-4729.
www.breedersrights.com.

Monrovia, (800) 999-1101 ext. 124.
www.monrovia.com.

Terra Nova Nurseries, Inc.,
(800) 215-9450.
www.terravanurseries.com.

PATENT AGENTS

They obtain patents and all other legal protection for plants.

Biological Patent Services,
(612) 237-6623. E-mail:
pennyag@earthlink.net.

Proprietary Rights International,
(254) 836-5150. E-mail:
cawhealy@aol.com.

BREEDER SERVICES

These companies handle the entire process from market assessment to introducing plants to consumers.

NARA Services, (805) 487-3858.
www.naraservices.com.

Plant Development Services, Inc.,
(888) 922-7374.
www.plantdevelopment.com.

Plant Haven, (805) 569-0169.
www.planthaven.com.