



EXTENSION'S
Successful
Gardener

NC STATE UNIVERSITY NORTH CAROLINA COOPERATIVE EXTENSION

Helping Carolinians Increase Their Knowledge of Gardening, Manage Their Landscape Investment & Protect the Environment

JC Raulston Arboretum Plant Focus

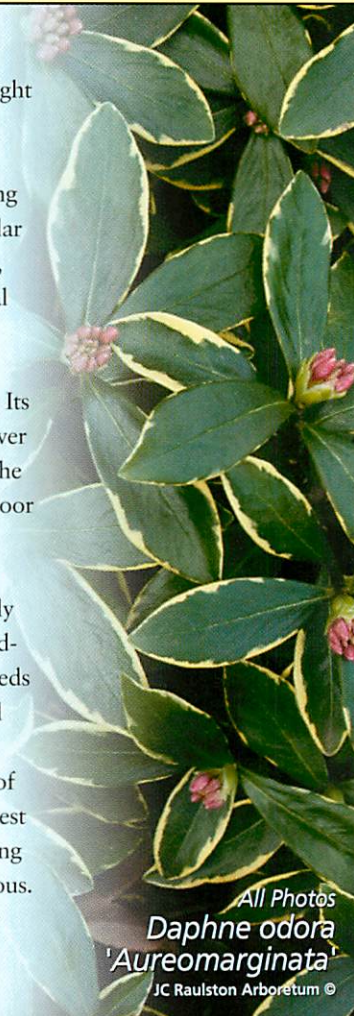
Winter Daphne Tickles Spring's Fancy

D *aphne odora* or winter daphne is a winter-flowering shrub that can withstand our fickle weather that may be balmy one day and downright cold the next. With its irresistible fragrance and sweet nosegay-type flower clusters, this plant brightens the winter landscape.

Winter daphne is an attractive, sparsely branched evergreen shrub, reaching about 3 feet in height and spread. It is grown for its wonderful fragrant tubular flowers and for its glossy foliage. The most common cultivar, 'Aureomarginata', has leaves with a narrow, irregular yellow margin. The plant produces terminal clusters of small flowers in February to early March that are crystalline white inside and deep purplish-pink outside. The flower of winter daphne is highly regarded for its strong scent, possibly the most delightful scent of any flower. Its scent is very similar to *Osmanthus fragrans*, which blooms in the fall. The flower clusters keep well in water, allowing one to appreciate the scent indoors. In the landscape, winter daphne is best located near a well-traveled path or an outdoor courtyard where its fragrance can be best appreciated.

Winter daphne can be challenging to grow. It does not tolerate soils with poor drainage. Root rot diseases associated with poorly drained soils are likely the major cause of failure in the landscape. Ideally, a deep, well-drained woodland soil with plenty of humus is best for this shrub. Plant in slightly raised beds in amended soil to ensure adequate drainage. Winter daphne can tolerate full sun, but does best in a protected area providing moderate shade. The plant needs to be irrigated during periods of drought, but is considerably tolerant of drought episodes. It does not heal well from cuts into mature wood so it is best to avoid pruning. However, "pinching" or taking cuttings from the tips of long shoots on the current year's growth makes the plant fuller and more floriferous.

At the JC Raulston Arboretum in Raleigh, find an old specimen of winter daphne in a protected site in the townhouse garden. **Darrell Blackwelder**



All Photos
Daphne odora
 'Aureomarginata'
 JC Raulston Arboretum ©

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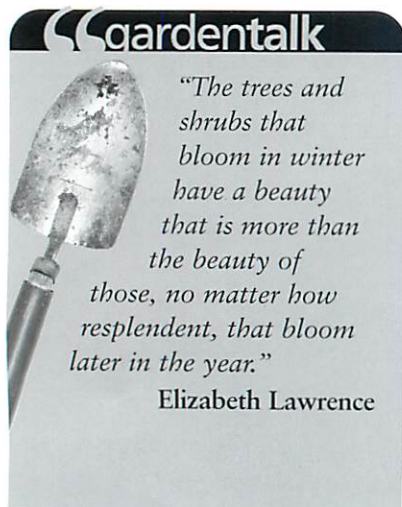
Endless Summer® Hydrangea



Knock Out® Rose



Autumn Royalty™
Encore Azalea®



What's in a Plant Name?

Garden centers and their plant selections have changed through the years, many offering a dream world full of new products. One of the most notable changes is that more plants contain trademarks and patents, and the plant images are often copyrighted.

Call it shrewd merchandising or an attempt to simplify horticulture for the masses, but branding plants is a hot button in the green industry. Here is a primer to the industry jargon.

Patents for Plants

Plants can be patented just like can openers, clocks and car parts. If a person discovers a plant that is different from any others, he or she can clone that plant and apply for a patent. The rules require invention or discovery in a cultivated state. Hybridizing is acceptable, but finding a plant in the wild isn't. A person has to reproduce the plant asexually by grafting, rooting a cutting, dividing, layering or otherwise making genetically identical copies.

Plant patents last for 20 years and cost money, but the inventor (the person who invented, discovered or propagated the plant) can control production and propagation or charge a fee when others make money off his plant invention. Nurseries that grow a patented plant are required to pay a royalty when they sell the plant.

Interestingly, most seeds and all tubers are exempt from patents. People who think their seeds and tubers are extra special can apply for protection from the U.S. Department of Agriculture. Some manufacturers require farmers to follow regulations and legal agreements before planting the genetically modified seed of certain vegetables, like herbicide-resistant corn or soybeans.

Trademarks for Plants

Trademarks are different and apply more to a name than to a plant. For example, *Endless Summer*® is the trademark name of *Hydrangea macrophylla* 'Bailmer.' You will probably never see a sign in the garden center that points people to the 'Bailmer' bigleaf hydrangeas. Instead, retailers will put the plants in a colorful pot with a big tag displaying the trademark name and a premium price. This plant is also patented, so after the botanical name and cultivar, the tag will have the capital letters "PP" and a string of numbers in parentheses.

Similarly, there are many cultivars of *Encore Azalea*®, each with a cultivar name you may never recognize. Individual trademark names use the word "autumn" and a color description to distin-

guish the characteristic that these plants bloom at an unusual time for azaleas. Examples are *Autumn Amethyst*™ and *Autumn Coral*™. Trademarks promote a brand or origin and are not technically part of the botanical name of the plant. Actual cultivar names cannot be trademarked since they are for public use to identify plants.

True cultivar names are getting lost in the shuffle as plants are referred to by a trademark, a name owned by a company to identify the company and to distinguish the company's product from others. The cultivar name appears in single quotes, often in a smaller font on a label.

Groups of plants also can be trademarked. *David Austin*®, *Plants that Work*® and *Proven Winners*® are examples of plant collections with registered trademarks. Consumers often associate quality or a special characteristic with plants under a brand name since lots of research, work and money have gone into selecting particular plants in these named collections.

Expensive, colorful signs direct visitors to collections of plant groups that offer unique landscaping opportunities. *Stepables*® may be a great choice where a groundcover is needed. If you need ideas for accessorizing with color in autumn then *Fall Magic*® selections just might fit the bill.

Copyrights for Plant Tags, Images

Copyrights are separate and protect a form of expression. A plant tag or image can be copyrighted so that others cannot legally reproduce and distribute the description, image or tag. Lots of things can be copyrighted – songs, books, dramas and other artistic forms – but not plants.

Plants Without Hype

Keep in mind, however, that plenty of plants with more common names and more unusual characteristics may be hidden beside or behind the flashy brands of trademarked and patented plants. There are plenty of groundcovers that tolerate some foot traffic and no shortage of plants with fantastic fall color. Just because a collection is trademarked doesn't mean those are the only plants with those features.

Feel free to try patented plants and others without the fancy names. Many plants are dependable, perform well and look great without the hype. And if you and your gardening friends are thinking of writing a play about some trademarked and patented plants, consider a lawyer. *Toby Bost & Mark Blevins*

Q&A

How do I prevent blossom-end rot?

Blossom-end rot (BER) is a common disorder of tomatoes in

North Carolina. Beginning as small soft spots on the bottom or blossom end of ripening tomatoes, the spots become hard and leathery looking. Up to half of each tomato can be lost to this problem. This disorder is created when the plant suffers from a lack of calcium.

Preventing BER takes some planning. Adding lime, a major source of calcium, several months before planting is an effective way to ensure an adequate supply of calcium. Soil tests are a great way to learn what your soil needs. Soil test information and boxes are available at your local Cooperative Extension Center.

Another cause of BER is drought and uneven soil moisture. Calcium is carried through the plant's root system via the water stream, moves upward into stems and finally into the developing fruit. Dry soil cannot release calcium and offer uptake

to satisfy a plant's need for calcium. Subsequently, waterlogged soil can block uptake of this vital plant nutrient.

Mulching and regular irrigation can help make soil moisture levels more consistent, which helps maintain adequate calcium availability. Some types of fertilizers can aggravate the problem and increase the incidence of BER. Many growers use calcium nitrate fertilizers to minimize BER and increase the amount of calcium in the soil.

In years past, gardeners have used weekly sprays of liquid calcium chloride products to prevent or stop BER. Research has shown that plants cannot absorb enough calcium from spraying leaves to correct BER. Again, this is why it is critical to build up soil levels of calcium before the problem arises and to provide adequate water to plants during the time of fruit development. Finally, pruning your plants can also increase BER.

Established plants do not seem to be bothered with BER, particularly if they are well mulched.

Jeff Rieves

Rain Barrels

Free water to use as you wish is what you get from using rain barrels. Most barrels are around 55-gallon capacity, which will supply irrigation water through drip or soaker hoses to an area of 10 x 10 feet. There are do-it-yourself kits as well as preassembled and ready-to-use barrels. It takes minimal mechanical skills to construct your own. The cost of materials for a collection system can be as low as \$25 compared to a purchased system that can exceed \$100.

Deciding how many barrels are needed is determined by the size of a roof. For example, if a 55-gallon barrel is used for collecting water from a 1,000-square-foot area, one-tenth of an inch of rain will fill it. A wet foundation from overflow can be avoided by connecting multiple barrels to the collection barrel with a hose or pipe. To conserve water in large volumes, consider an underground storage tank or cistern.

A well-designed and functional rain barrel should include features such as a faucet head that is easily adapted to a standard 3/4-inch water or soaker hose for irrigation. Filters, both on the inlet side of water from a roof and the discharge side of a barrel, will reduce overflow and clogging. In addition, the top screen filter will prevent mosquitoes. Make sure the rain barrel opening is secure to prevent drowning of small children or pets. Visit www.rainbarrels.com for more information.

Donald Breedlove

ENVIRO-TIP

Patience Helps Avoid Frost Damage

When spring starts to tempt us with warm sunny days, it takes a strong gardener to withstand the urge to go out and purchase plants. When tender plants are put into the ground and temperatures plummet to the 20s, cold damage is a certainty. The best way to prevent frost damage on tender transplants is to wait until after the danger of frost is over. Depending on where in the Carolinas you live, the last frost date can vary considerably. Check with your local Cooperative Extension Center to find the last predicted frost date for your area.

In case you give in to the planting urge, there are some things that can help your plants survive a frost. Water plants before the sun goes down. Wet soil absorbs more solar radiation than dry soil. Mulch plants before cover-

ing. Cover plants with sheets, burlap, blankets or plastic. Make sure the cover does not touch the plants and that it goes to the ground. Weigh it down with bricks or boards. Be sure to remove any cover the next day before temperatures reach the mid 50s.

Another important point to remember is to select plants that are normally hardy for your area. Never plant tropical plants such as mandevilla and hibiscus until after warm weather is here to stay.

The best way to keep plants from getting damaged by frost is to refrain from planting them too early. Very little growth will take place until soil temperatures warm up and you'll save yourself a lot of time and trouble by waiting until the time is right.

Donna Teasley



JC Raulston Arboretum ©



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For a list of garden centers where you can find *Successful Gardener*®, please call (919)513-3112 or visit Cooperative Extension on the web at <http://www.successfulgardener.org>

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Gardening in March

Lawns

- Take advantage of warm days to apply broadleaf weed killer to lawns.
- Apply preemergent crabgrass products in March. Do not use them if you are seeding or overseeding.

Ornamentals

- Divide perennials such as hostas, daylilies, sedums, salvias, mints, thyme and ornamental grasses. This is an easy way to enlarge your garden without purchasing more plants.
- Groundcovers serve as a low maintenance landscape. Plant groundcovers instead of grass in areas with dense shade. Examples are pachysandra, periwinkle, ajuga, liriope and sweet woodruff.

Edibles

- Henbit and chickweed can overrun a spring garden. Rake and pull these weeds by hand. Renew the mulch if needed then put down a preemergent herbicide like Preen® or Treflan® to prevent summer annual weeds from germinating.
 - Consider drip irrigation for conserving water in the vegetable garden this year.
 - Till the vegetable garden and incorporate lime, compost and fertilizer into the soil. These nutrients work best if they are in the root zone of the plants. Be sure the soil is dry before tilling.
 - Plant cool-weather crops such as potato, kale, radish, lettuce, broccoli and cabbage.
 - Wait until the last frost-free date to plant tender annuals, tomatoes, peppers, eggplants and cucumbers.
 - Spray peaches and plums after blooms have fallen and fruit is set. The spray should contain a fungicide such as Captan or sulfur to control brown rot, and an insecticide such as Sevin to control stink bugs, plum curculios and Oriental fruit moths. Spray peaches and plums every 10 to 14 days until a week or two before harvest.
 - To prevent injury to pollinating honeybees, do not spray an insecticide when fruit trees are in bloom. **Carl Matyac**

Extension's *Successful Gardener* Learning Centers and Seminars

will be a feature of home and garden shows this spring. N.C. Cooperative Extension horticulture agents and Master Gardeners will answer gardening questions. The centers will showcase the 2008 Showstopper Plants. The plants were nominated by the North Carolina Nursery & Landscape Association and selected by Cooperative Extension horticulture experts.

Southern Spring Home & Garden Show
Feb. 27 – March 2, Charlotte Merchandise Mart

Southern Ideal Home Show, Greensboro
March 14-16, Greensboro Coliseum

Carolina Home & Garden Show, Fayetteville
March 28-30, Cumberland County Crown Center

Brunswick Islands Home & Garden Show
March 29-30, West Brunswick High School, Shallotte

Southern Ideal Home Show, Raleigh
April 4-6, NC State Fairgrounds

www.successfulgardener.org
Michelle Wallace

TOP AWARDS RECEIVED FROM:

- ▶ North Carolina State Grange/Extension Foundation
- ▶ Garden Writers Association
- ▶ International Association of Business Communicators
- ▶ N.C. & National Associations of County Agricultural Agents
- ▶ Southern Extension Forest Resource Specialists
- ▶ Mecklenburg County Priority Awards

Successful Gardener™ newsletter is provided to you compliments of:



Announcing the 2008 North Carolina Showstopper Plants!

www.successfulgardener.org



SHOWSTOPPER plants

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Cercis canadensis 'Oklahoma' Dick Bir ©

Garden Spot