

Starting a Nursery Business

Peyton Walton of Native Sun Nursery

Inside: Your Most important Salesperson • Carolina Buckthorn

Dallas hosts TAN-MISSLARK Aug. 16-18

The 54th annual TAN-MISS-LARK show returns to Dallas this coming August 16-18. At least 1,600 booths will be filled with exhibitors showing a great diversity of nursery products and services.

TAN-MISSLARK is the nation's,

and perhaps the world's, largest nursery trade show.

The Dallas Convention Center will open for registration from 9 a.m. to 5 p.m. each day. The doors open to visitors at 10 a.m. Friday, Aug. 16, and at 9 a.m. the following

two days. The show closes daily at 5 p.m.

Preregistration costs \$10 for buyers or exhibitors, although each exhibit booth space awards two registrations at no charge.

All show-goers are invited to a Welcome to Dallas Party at 6 p.m. Friday, Aug. 16, in the Loews Anatole Hotel Chantilly Ballroom. The party will include snacks, beverages and live music.

Terry Price, merchandise manager for Wal-Mart Corporation, will lead a seminar from 8 to 9 a.m. Saturday, Aug. 17, at the Dallas Convention Center. That evening the Texas Association of Nurserymen will hold its awards dinner and dance beginning at 7 p.m. in Loews Anatole. This event is optional and costs \$35 per person.

The American Association of Nurserymen will hold its Region V breakfast on Sunday, Aug. 18, at 8 a.m. in the Loews Anatole. This event costs \$15.

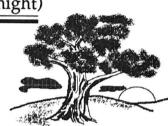
Registration materials are available from the Texas Association of Nurserymen, (800) 880-0343; 7730 South IH-35, Austin, TX 78745-6621.

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Louisiana's Nurserymen

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The art of the nursery business

LAN President Richard Maxwell

Richard Maxwell remembers the fear that gripped him when Frank Akin first walked through his door. "I thought he was going to ask me to leave town," Maxwell remembers.

It was 1973, and Maxwell had just landed a job managing Griffith's Nursery in Shreveport. His location was only two blocks from Akin's Nursery.

"I had flown helicopters in the Vietnam War. I had worked in an ad agency, for a silkscreen printer and for a jeweler. I really had no experience with plants. But my wife was pregnant and I needed a job."

Akin, on the other hand, had a family heritage of nursery experience and was already a leader in the



Maxwell

nursery community. He would later become LAN president, SNA president, and president-elect of the American Association of Nurserymen.

Maxwell, whose training was in commercial art, was directly in competition with Akin. "I had been on the job only a day or two when Frank came by. I remember being scared, but Frank came by to welcome me.

"Things like that keep you in a profession."

Akin and Maxwell became good friends, and although Akin eventually left the nursery business to join the ministry, they keep in touch.

Maxwell earned a degree in advertising and commercial art from Northwestern Louisiana University. That training served him in the Green Industry. "In landscaping you use color, line, texture and form just as you do in art."

He managed Griffith's for six years, then went into business as a landscaper. After building capital for two years, he found a spot on Linwood Ave. in south central Shreveport and opened Maxwell's Nursery in March 1982.

He has since opened a second store in a Sears garden center on Mall St. Vincent in Shreveport.

"We've achieved the volume of business we're comfortable with. We're working on being more efficient."

As LAN President, Maxwell plans to boost membership with his "i got 1 in '91" drive. He also hopes to achieve a reduced group insurance rate for LAN members, and to complete a study guide and training video for the Certified Nurseryman's program. Other goals include keeping LAN in an improving financial condition, and increasing the LANSAR (LAN scholarship and research) fund.



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Your Most Important Salesperson

BY WARREN PURDY

Who in your organization is the most important salesperson? Is it you—the owner? Wrong. Is is the sales manager? Wrong again. Think about it for a moment. Who is the first person to handle the prospective client? Who is the person who welcomes him to the firm and makes the first and usually the most lasting impression? Why, it's usually the lowest-paid employee in the firm—the telephone receptionist!!

This person is the one who sets the mood and tone of the client and tells the client what type of firm you are. She can be your best salesperson or the most detrimental force to your success without your being aware of what is happening. And yet I see so many firms treating this position as second-rate, letting anyone in the office answer calls or hiring the cheapest clerical help possible to fill this very important position.

Telephone Personality

The telephone reception ist should be a person with a telephone personality that makes anyone on the other end of the line say to themselves, "I can't wait to go visit that office to see her. I don't care if she is overweight or is homely!!" The caller just has to meet her. This person is your calling card—your foot in the door, so to speak—to almost all of your sales. She is also a

continuing influence in your sales program in keeping your existing clients by the way she keeps that telephone personality working on your behalf.

Let's take a look at the personality traits and habits that you, as owners, should look for and demand and pay for, of a first class telephone receptionist. Remember that she is the key to your very existence.

- 1. She should have a very cheerful and friendly voice that "turns one on," if you will. A dull, monotone voice will not do.
- 2. She should have the ability to courteously connect the prospective or existing client to the proper person in the firm. She should keep a record of the call and whom she referred the caller to in the firm.





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- 3. She should have the ability to find out who callers are in order to announce them to the proper person in the company so that they can collect their thoughts before answering the call. The proper way to do this is: "Yes, Mr. Jones is in, may I tell him who is calling?" Mr. Jones must take the call at this point, no matter what! If Mr. Jones must delay calls, he should let the receptionist know this and let her know when he will be returning calls. If he does not do this, she cannot do her job and her credibility is lost to the clientele.
- 4. She must be able to recognize your clients' and tradespeople's voices and be able to greet them personally by name. This is one of the best ego builders I know. It also sets the tone with these people that they are known and appreciated.

I once observed a very efficient secretary who screened all of her boss's calls. She never recognized



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any of the callers and was so impersonal on the telephone that clients disliked calling. Two weeks after one of my visits and recommendation to let her go, one of the firm's largest clients threatened to stop doing business with them if they had to talk to her. Even though she was very efficient, the company could not afford to keep her.

5. She must be able to find out from the caller how urgent the call is. If you are out or in conference, she needs to get the urgent calls to you. No one likes to wait all day for a return call when an emergency is in progress. It's up to her to solve this immediately by contacting the proper person.

I recall a situation years ago when I was a landscape contractor. My company and a competitor were submitting sealed proposals on a major job. I learned from a supplier that the amount of materials I was pricing for the bid was considerably more than what the competitor had requested. I rechecked our computations and called the supplier and told him we were correct and to please inform the competitor that he had miscalculated. The supplier called the competitor. His call and message was never returned or acknowledged. The competitor was the low bidder—he performed the job-and went bankrupt.

6. She must be able to answer the phone promptly and update the caller while he is waiting to be put through to the proper party. Nothing is more disturbing than to have to wait three or four rings for someone to answer the phone. It gives the impression that the business is closed. Another disturbing thing is to be put on hold and left hanging. Not long ago I placed a long distance call to a client and the phone was answered by a young lady who really sounded down in the dumps. I explained I was calling long distance and was placed on hold for two minutes. I called the next day and received the same treatment. I visited the client's office the next week and brought this to my client's attention.

The young lady was the book-

keeper and the business was having cash flow problems. She was emitting those problems to everyone who called. My client returned her back to the bookkeeping department and the new receptionist is doing fine. (So is the business!!)

Pay for Experience

These are just a few of the points and examples of how critical the telephone receptionist is to your business. Don't and I repeat, don't take this position lightly. More

business has been lost by poor telephone procedures than you can imagine. If you want to check your telephone sometime, have a friend call and ask him for his honest impression. You may be horrified by the results. If you are among the 80% of the firms I contact, you do not have your best salesperson on the telephone. Treat this position as it should be high priority and hire someone with the above traits. Pay a good salary to someone who could very well be your best salesperson.

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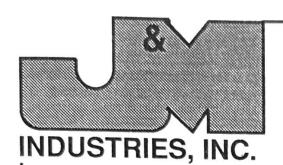


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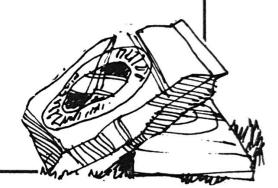


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SCIONS OF THE TIMES

Dogwood Doomsday?

Dogwood anthracnose is killing lots of Cornus florida along the East Coast forests, leading to predictions in a number of consumer magazines that this beautiful tree should no longer be planted in the home landscape. Some nurseries report sales are off as much as 75 percent. Even in the American Nurseryman magazine, one expert writes, "Even if nurseries can grow disease-free plants, it seems almost certain they are doomed once planted in the landscape." The writer, plant pathologist Larry Englander of the University of Rhode Island, adds, "...it is futile to grow and recommend this species where the blight is prevalent."

Some experts disagree with this. Mark Windham and Robert Trigiano of the University of Tennessee respond in a letter to the American Nurseryman: "(Dogwood anthracnose) can be controlled with suitable fungicidal sprays when applied at appropriate times." They also cite research showing that fertilizer amendments high in calcium and low in phosphorus suppressed disease symptoms.

"It would be inappropriate at this time to make blanket statements regarding survival of flowering dogwoods in vastly different habitats and geographical regions," they add.

SNA has printed half a million brochures to provide consumers with accurate information about dogwood anthracnose. To obtain copies, contact SNA at (404) 973-9026.

Scholarships, research fund cut

At its June 4 meeting the LAN Board voted to apply all interest from its scholarship and research fund toward an anticipated budget shortfall.

The board authorized a transfer of up to \$5,000 from scholarships and research monies to offset the projected deficit.

The universities that were invited to submit research proposals (see spring 1991 issue of this magazine,

p. 11) have been notified that the research grants will be unavailable this year.

LAN will award one \$500 Ira Nelson scholarship and will give a second \$500 scholarship that is funded by Windmill Nurseries.

Green Council Formed

Landscape architects, arborists, florists and members of LAN met April 26 to form a Louisiana Green Council. The council unites the key players in the green industry, to discuss matters of mutual concern. Representing LAN on the council will be J. C. Patrick, Baton Rouge, an LAN board member; and Dennis McClosky, Franklinton, owner of Windmill Nurseries.

At the first meeting, representatives discussed green laws, public relations, legislation, native plant production, and better communication within the green industry.





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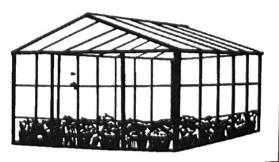
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Botanic Garden for Baton Rouge

Baton Rougeans are planning a 14-acre downtown botanical garden within Independence Park.

According to Baton Rouge landscape architect Austin "Buck" Abbey, the garden would feature specialty plant collections. These would include locally adaptable landscape plants, flowers and garden features such as fountains, pavements, walls, fences, shade arbors, vine trellises and gazebos.

Abbey recently presented a master plan for the garden to a gathering of about 100 gardening enthusiasts.

Several groups are already planning to participate in building the botanical gardens, according to Abbey. The Baton Rouge Garden

Club recently completed a President's Garden to commemorate the club's 60th anniversary.

The rose and camellia societies are planning demonstration gardens, and the Baton Rouge Landscape Association has indicated it will build

a crape myrtle display area.

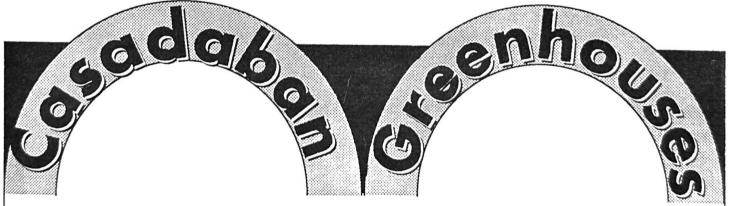
A sensory garden that would feature plants for the visually impaired is under study.

For more information contact Buck Abbey at (504) 766-0922.

They got 1 in '91

Thanks to the following sponsors who brought in new members during LAN's 1991 drive to raise membership by 300.

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Starting a Nursery Business

Probably everyone who has rooted a cutting has dreamed of owning his own nursery. Many look at nursery owners and covet the status, the money, the opportunity to call the shots, the chance to be a community leader.

They don't see the dark side of nursery ownership: the long hours, the years of debt, the frustration of managing people, the threat of losing it all to an 18° cold snap.

Since the end of the 1970s, going into the nursery business in Louisiana has been further complicated by a near-depression economy, by tough competition from big out-of-state growers, and by increasingly complex regulations.

Young people who start nurseries must seek a new niche in the market and come up with some creative solutions to financing, labor, growing and marketing.

Three young nurserymen who have recently established nursery businesses—Chip Vallot, Rick Webb and Peyton Walton—share their problems, surprises and rewards as fledgling nursery owners.



A Nurseryman by Birth

Chip Vallot was born into the nursery business. His dad, Earl, was a leader in the south Louisiana nursery industry and a charter officer of LAN when it was formed in 1954. Chip worked for his dad's Grandview Nursery in Youngsville for years and got additional training at the University of Southwestern Louisiana. But four years ago he decided to try his own approach to wholesale growing.

He had long been intrigued with



Chip Vallot with his drip-irrigated container-grown live oaks

growing trees in large containers, but knew there were problems. "I had seen some trees in 20-gallon metal containers. They sold quickly. But at the time nobody was making plastic containers. But even after plastic pots were introduced, I knew growers were having problems with overhead irrigation, and with the trees falling over."

One day Vallot visited Turkey Creek Farms, north of Houston. Sterling Cornelius and his staff had developed a structure for growing big-container trees that solved the irrigation and wind-damage problems. They were using a grid of galvanized steel plumbing pipe to anchor the trees and to support a drip irrigation watering system.

"When I saw that, it hit me in the gut," Vallot remembers. "There was a recession going on; labor was expensive. I knew I could manage such a system by myself. The people at Turkey Creek shared their information readily."

Vallot put pencil to paper and

figured his costs and expected returns. He obtained a \$25,000 loan and set out to start a nursery. He severed ties with Grandview Nursery, but amicably: Earl gave him use of the land where he would grow his trees.

He hauled earth to the site and leveled it, then spread a layer of pea gravel, then dug anchor points for the plumbing pipe. He assembled the pipe grid, poured concrete walkways and anchor points, then established a drip irrigation system.

Chip took much of his pay from Grandview in plants, reducing his initial capital investment significantly. He moved 1-gallon plants up to 5-gallon containers to prepare them for later transplant to even bigger containers. He decided to grow most of the popular trees: live oak, shumard oak, Magnolia grandiflora, cypress, spruce pine, crepe myrtle. He also planted quite a few japanese maples and Magnolia soulangeana, as well as some azaleas in 7-gallon containers.

For the first 18 to 24 months, growing trees in big containers means that cash flows in one direction only: away from the grower. To make ends meet, Vallot took a job with a supplier of metals for the construction and oil industry. But that didn't help when his bank note became due.

"The bank expected payments by the end of the first year. I had to negotiate with them to allow me to pay only interest notes. Then I had to borrow money from another source to do that."

Working full-time, Vallot found he could manage the growing operation of his tree farm in the late afternoons. But he had little time left to market his plants.

"I wasn't doing much other than sending out price lists," Vallot remembers. "The bank forced me to drop prices. I was getting \$35 for plants that I knew would sell for \$65 to \$100 in Houston."

He persevered, plowing all sales back into the nursery. Four years after striking out on his own, Vallot has not taken a dime of profit from the nursery. But he has only one more bank payment to make. He has a customer base. He has a nearly automatic nursery that requires very little labor. And he has a healthy inventory of big trees that will be fat enough for market in the spring.

He also has no regrets about starting his own nursery. "I think I'd have been really disappointed had I not done it," he says. "This is what I know. As owner, you can implement your own ideas; use your own ingenuity to solve problems. I hope to do this full-time some day."

An Off-Suit Ace

Rick Webb left Windmill Nurseries in 1988 with an unusual six-year plan. He knew he would be in for years of long hours and low cash flow. But at the end of six years, he wanted to be making from his own nursery the same kind of money he was then making at Windmill.

"I was happy at Windmill and could have worked there all my life. I just wanted to play my own game. I wanted to use my own creativity. If you're in a bourrée game and you're holding a off-suit ace, you need to play it early or not at all."

Webb's ace was his years of experience in growing plants, combined with his many contacts in the nursery industry. He was still young, and his family could make it on his wife's income.

In January 1988 he started Louisiana Growers on a 3.5-acre site east of Amite. His initial plan was to grow native Louisiana trees and shrubs. He planted wax myrtles, Virginia willow, starbush, dahoon holly, bigleaf magnolia, mayhaw, 11 species of oaks, silverbell and other natives. He also planted hard-to-find specialty trees like ginkgos and dawn redwoods.

He has 1, 3, 5 and 10 gallon sizes, and strives for diversity of species rather than big numbers of the same plant.

He has borrowed no money. "It's all out of pocket," Webb says of his financing. "I have no equipment to speak of, and I didn't put in two acres of plants all at once." Having no bank notes keeps his cash outflow low, but it also restricts his rate of development. "I would like to be able to react immediately to the needs of the nursery. Right now I'd like to go to Florida and buy five digits worth of 3-gallon containers, but I can't."

Once he established his growing operation, Webb found he had enough time to develop cash flow by re-wholesaling plants grown by the many nurseries in the Covington-Folsom area.

Re-wholesaling allowed him to keep in touch with his many contacts among retailers and landscapers, and to draw also from his familiarity with what fellow growers in the area had to offer.

Many of his customers are New Orleans landscapers, but he handles orders from Atlanta, Houston, Dallas and Little Rock.

"Re-wholesaling was not in my original plan, but it gave me some cash flow and an opportunity to stay in the flow [of nursery sales]."

Lining up buyers and sellers for a 15% markup is no way to get rich quick, Webb says. If a buyer turns out to be a bad account, Webb must pay the growers from profits.

Re-wholesaling also distracts him from tending his own nursery. "The growing operation is my future. It's hard to tag crepe myrtles in Folsom [for re-wholesaling] when I should be here at my nursery. I get calls from people who expect me to find the one thing they can't get anywhere else."

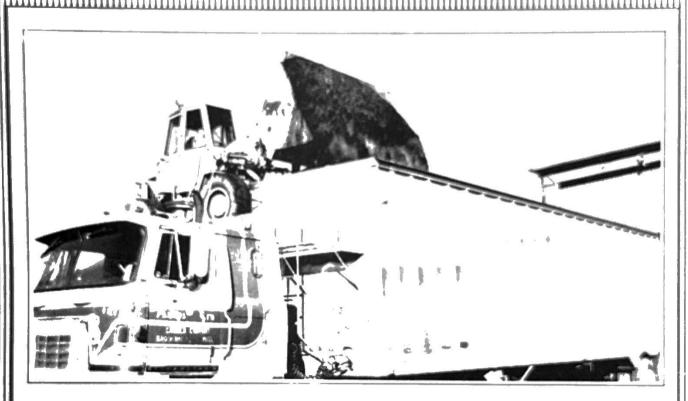
This coming fall will be the first big shipping season for Louisiana Growers. "When you see me at the trade shows this fall, all the plants [in the exhibit booth] will be mine." Webb had shown others' plants for re-wholesale at previous shows.

The jury is still out on whether Louisiana natives will sell, Webb admits. "There's a lot of wax ligustrums being planted every day, but very few silverbells." He says he plans to plant some of the breadand-butter landscape items like liriope and boxwoods, to offer landscape contractors a better variety to choose from.

Having been on his own for three years, Webb still has yet to draw a salary from his nursery. "I've taken a little out each month for the kids' college fund, but other than that, nothing. I don't think I'll allow myself to take a salary until this time next year."

That's a lot of deferred gratification, particularly in view of the long hours Rick puts in. "I usually work 10 or 11 hours a day in the nursery, then do desk work at night. I'm 35 and living in a mobile home. I've been putting off a new car and a new home.

"You've gotta love it," Webb



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admits of nursery ownership. "But it's something you need to discuss with your family. My wife has her own career and her own night meetings. When the school bus gets home with the kids at 3:30, I've got to be home."

Although he knew the nursery business well as an employee, Webb has had some surprises as a CEO. In his first winter in business, Louisiana Growers lost about 20 percent of its plants to a freeze. He was also surprised to see himself make mistakes that he had made before, "whether in instructing employees or doing taxes or judging the weather."

His most pleasant surprise came from his fellow nurserymen. "I didn't expect to be as welcomed as I was. I found myself easily able to quote jobs and sell to people. People in the area have helped out readily. If I wanted to borrow a tractor and two men for a job, I could call right now and arrange it."

Having played his off-suit ace, Webb is continuing to play the game, hoping to lay a few trumps on the table in the coming years. While he cuts corners and lives frugally, his inventory of plants grows in size and value every day. "I'm happy with what I'm doing and looking forward to the future."

Just Do It

Peyton Walton admits that you have to transcend logic in order to open a new nursery. "It's like having kids. If you wait until you're really ready, you'll never do it."

After 12 years of experience in many phases of the wholesale industry, particularly greenhouse growing, Walton felt he had little to show for it. "I figured out that while I was on salary all those years, I would have been better off making the minimum wage for the hours I was putting in."

"I was reasonably secure, but people who were coming to me for advice—retailers and landscapers were making more money than I was. They owned their own businesses. The big difference between them and me was that these guys just jumped in and did it.

"I decided that no one would come to me and hand me a nursery business on a silver platter and say, 'Here it is.'"

Yet when the time came to go into business for himself, Walton—a 12-year veteran of landscaping and wholesale growing—opened a retail garden center. "A lot of my friends in the wholesale industry told me I was crazy to go into retail. But I like it. Customers are hungry for information and really appreciate it if you take the time to advise them." This came easily to Walton, who enjoys talking and is full of information derived from years of growing plants.

Walton was able to open for business with practically no capital. His cash register sales area is under a big tent canopy. Wholesalers helped him by extending generous credit.

"In the spring of 1990 we just unloaded ground cover cloth, put our inventory on it and began selling plants immediately."

One of Walton's chief assets is his location, an acre of land on Johnston St., Lafayette's chief commercial thoroughfare. Three acres behind his site are available for future expansion. As its name suggests, Native Sun nursery features native plants, although Walton carries a selection of the standard stuff.

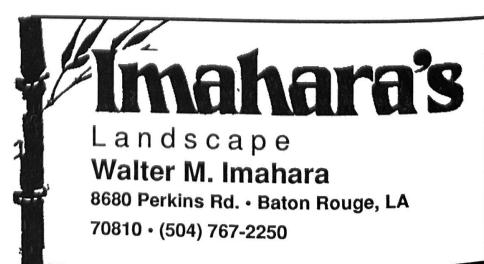
One of the early problems he faced in opening a nursery was city Metro Code officials, who wouldn't approve utilities service until he had a building. He took an 8- by 16-foot utility shed from his back yard and converted it into a snowball stand. This gave him city water and electricity, a bathroom, and an additional income stream from snowball sales. "People get a snowball and walk around to shop for plants, or they'll walk around and shop for plants and get a snowball."

In addition to staff with the nursery and snowball stand, Walton employs a landscape foreman and crew of four, and is about to enter the interiorscaping business.

Having been in business 16 months, Peyton wants to move his nursery to the next plateau. "When I first started out I was in a slow-growth mode. But I'm sitting on a gold mine with this location in this market. I'm looking into borrowing money or forming a corporation and seeking investors. I'd like to put up a nice garden center. But that will take a lot of money. I could probably put \$500,000, maybe a million, into this place."

He is optimistic about the future.







Walton, who worked in wholesale nurseries for 12 years, says he enjoys the person-to-person interaction of the retail business

"The baby boom is maturing and they're getting into gardening. We're just scratching the surface of this market."

He hopes to get a professional market survey done, to augment his business plan for expansion. In addition to his degree in horticulture and years of nursery experience, Walton has almost completed course work toward an M.B.A. degree.

For the short term, however, his

concern is survival. "We probably lost \$30,000 to \$40,000 in sales this spring, when it rained every day for weeks and weeks." Walton owes more money this year than at the same time last year, but is hoping for strong fall and Christmas sales to even the year out.

Walton works long hours. "In the first year we were open, I was here seven days a week. During the Christmas season I was here 'til 8 every night; often 'til 9, 10 or 11. In April I started taking Sunday mornings off. I really don't want to make it to the point where I don't have to be here."

Walton has no regrets for having left the security of employee status for the uneasy, demanding role of nursery owner. "There are only two kinds of people who make money in horticulture: owners and sales reps. I was an employee in the industry for 12 years and don't have a lot to show for it. I don't have it now, but one day as a nursery owner I'll have something to show for it."

New nursery owners face a daunting array of challenges:long hours, debt, years without return on investment, payroll to meet, people to manage, weather problems. And behind all the day-to-day challenges is the uncertainty, the thought that all this striving *may not* pay off one day.

Despite these many pitfalls, a new generation of nursery owners is entering the business. They feel it's worth it.

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CAROLINA BUCKTHORN A SMALL TREE FOR FORMAL OR INFORMAL SETTINGS

BY Dr. Severn Doughty

This large deciduous shrub or small tree would make an ideal ornamental because of its bright olive-green ornamental leaves and fruit clusters which appear red in summer and then turn black at maturity in fall. Its fruits attract song birds, which makes it ideal in a native landscape. However, it's not limited to a woodsy environment. It would make an interesting specimen plant in any landscape.

Carolina Buckthorn is scientifically known as *Rhamnus caroliniana* Walt (Bailey's *Hortus Third*, 1978) and belongs to the family *Rhamnaceae* or Buckthorn family. Not only is it commonly known as Carolina Buckthorn, but also Indian Cherry, Buckthorn, Yellowwood, Yellow Buckthorn, Bogbirch, Polecat-tree and Alder-leaf Buckthorn (Duncan and Duncan 1988, Little 1988, Vines 1976).

According to Little (1977), Carolina Buckthorn ranges widely throughout the Southeast. It's found in central to eastern Texas and eastern Oklahoma eastward to southern Missouri, throughout Arkansas to Louisiana, where Brown (1945) said it is widely distributed. It's found throughout most of Mississippi, Alabama, Tennessee and half of Georgia, South Carolina and Kentucky. Florida has a small range in the panhandle and around Gainesville. Small ranges also extend into western Virginia, western North Carolina, southern Ohio, Indiana and Illinois. Little (1977) doesn't show Rhamnus caroliniana in St. Tammany Parish but I've collected it there in Fountainbleau State Park.



Fast-growng and adaptable, Buckthorn offers showy leaves, flowers and colorful fruit.

Stupka (1980) indicated that it grows quite abundantly in a few areas of the Great Smoky Mountains National Park but overall it's rare. It's abundantly found at altitudes below 2,000 ft. and on alkaline, limestone or calcareous soils. However, Nokes (1986) and Vines (1976) indicated that it apparently grows well in either acid or alkaline soils. Foote and Jones (1989) suggested that it self-sows seeds readily and could become as weedy as privet hedge.

It will grow in either full sun or partial shade. Odenwald and Turner (1987) mentioned the fact that it's "especially noted on edges of woodlands." It prefers moist, fertile, organic soils but apparently it's not picky about that. Simpson (1988) indicated that in the bottomlands of Texas, it grows in acid sands and sandy loams with rainfall reaching

as much as 60 inches a year. Conversely, Simpson (1988) reported that farther west, in the western Cross Timbers and Edwards Plateau, it grows on limestone hill-sides, in full sunlight and rainfall there only may reach 30 inches a year.

Its landscape qualities are numerous. Carolina Buckthorn is a relatively fast-growing tree that could reach as high as 40 feet and spread to 18 feet. However, it normally only reaches from 12 to 15 feet high and spreads to about 10 feet. According to Godfrey (1988), there are two national champions. One is in Middleburg, VA and reaches 27 feet high, has a 23-foot spread and a 3-foot 5-inch circumference. The other is located in Norris Dam State Park, Tenn., and it's 46 feet high, 21 feet wide and has a circumference of 1 foot, 9 inches.

Its form is upright, oval to fountain-like with medium density in shade and more dense in full sunlight. It has medium texture and exhibits a golden yellow autumn color. The really interesting feature about this plant is when the berries begin changing from red to black around August. Both colored berries are found on the plant at the same time and fruiting is consistent year after year. According to Dirr (1983), it's been in cultivation since 1727.

Good color photos of both red and black berries can be seen in Duncan and Duncan (1988) and Foote and Jones (1989). For good bark and foliage photos consult Little (1988).

I planted a 3 ¹/₂ -foot tall specimen in my back yard several years ago and it began fruiting last year. They're relatively easy to transplant especially ones that are below 5 feet tall (Odenwald and Turner 1987).

The bright green, simple, elliptic to broadly oblong leaves are 2 to 6 inches long and 1 to 2 inches wide. They are abundantly scattered along the branches in alternate arrangement. The apex is acute or acuminate and the base may be cuneate or rounded and sometimes inequilateral. The margins are finely serrate to finely wavy toothed. According to Duncan and Duncan (1988) the leaves when crushed like a skunk or polecat. The prominent, sometimes yellowish, midrib and 6-10 pairs of parallel secondary veins make the shiny thin leaf rather ornamental. The lower leaf surface is velvety pubescent to glabrous. Leaf petioles are slender, pubescent and from 1/4" to 1" in length (Brown and Kirkman 1990, Coker and Totten 1937, Harrar and Harrar 1962, Little 1988, Sargent 1965 reprint, Vines 1972).

Unarmed twigs are greenish and or reddish and at first pubescent. Later they'll turn reddish brown, then gray, smooth and dotted with small, raised, silvery lenticels. The bark is predominately gray or sometimes grayish brown, smooth and thin with very narrow, shallow fissures (Harrar and Harrar 1962, Little

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1988, Sargent 1965 reprint, Vines 1976).

The small, bell-shaped, greenish-yellow, perfect, axillary flowers may appear solitary or in umbels of 3 to 5 florets about $\frac{1}{25}$ " wide and usually present from April to June. The globose fruit is considered a drupe and at first is red later maturing into a black, lustrous color that's from $\frac{1}{3}$ " to $\frac{3}{8}$ " in diameter. It's sweet but with dry flesh and contains 1 to 4 nutlets that are reddish brown and about $\frac{1}{5}$ " long (Harrar and Harrar 1962, Little 1988, Radford, Ahles and Bell 1979, Sargent 1965 reprint, Vines 1976).

Rhamnus caroliniana can be propagated by seeds or by cuttings. According to Dirr and Heuser (1987), seeds should be subjected to cold stratification for one to two months at around 38°F. Nokes (1986) recommended collecting seeds in fall, removing the sarcotesta and either storing them in a sealed container in a cool, dry place or sowing them immediately. Nokes

(1986) indicated not to dry them as drying induces dormancy. However, should they have been stored, they can be stratified for 30 days at 41°F. Fresh seeds need no pre-treatment and should germinate within five weeks. Nokes (1986), further stated that seedlings grow rapidly and can easily be transplanted from flats to one-gallon containers.

As far as cuttings are concerned, Dirr and Heuser (1987) took cuttings in mid-August and used three rates of IBA solution (0,1000 and 5000 ppm). Rooting in a peat: perlite medium, under mist and within eight weeks the three concentrations produced 27%, 97% and 100% rooting, respectively. According to the researchers each rooted cutting averaged 23 roots.

Nokes (1986) indicated that semihardwood 4" to 6" cuttings taken from mid-summer through fall, treated with Hormodin 3 (IBA) and provided with intermittent mist, should root within five weeks.

Also according to Nokes (1986)

hardwood cuttings can be taken in late fall or winter. She recommended that cuttings be between 10 and 17 inches long, tied in bundles with the basal ends evenly together and stored in boxes of moist sand and refrigerated.

Callus should form on the cuttings in 6 to 8 weeks (Nokes 1986). Nokes recommends removing the bundles and washing them in spring, then planting them out in open rows with only one bud exposed above ground.

Carolina Buckthorn is important to wildlife. According to Vines (1976) catbirds and others enjoy the fruit. Little (1988) also indicated that not only songbirds but other wildlife consume the berries.

Crawford, Kucera and Ehrenreich (1969) indicated that deer and cattle occasionally feed on Carolina Buckthorn during winter. However, they reported that many songbirds and especially pileated woodpeckers enjoyed eating the fruit.

(continues on page 22)

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Thill (1983) reported that deer occasionally browsed on Carolina Buckthorn in fall and cattle only browsed a trace amount in winter on two forested pine-hardwood sites in central Louisiana.

Lampe and McCann (1985) listed three species of Rhamnus that are native to North America that are toxic. They mentioned that "related species are found throughout the north temperate zone." Toxic parts include fruit and bark.

Hardin and Arena (1974) listed Rhamnus spp. and indicated that they contain glycosides which are fairly strong laxatives. As a matter of fact, they stated that "R. purshiana is the source of cascara—a commonly used laxative."

Diseases don't appear to be a real problem with Buckthorns, Pirone, Dodge and Rickett (1960) listed several leaf spots, several rust diseases, a powdery mildew and a root rot which could very likely affect R. caroliniana. There's also a stem canker listed in the Index of Plant Diseases in the United States (1960).

Leaf spot and rust diseases can be controlled with Maneb Plus with Zinc, Man-co-zeb, Dithane M45 or Zyban. Benomyl will control powdery mildew. With all pesticides, read labels carefully before spraying.

Insect pests also are not a serious problem. According to Pirone, Dodge and Rickett (1960), several aphids, the buckthorn and melon aphids infect Buckthorns as a whole. Several scale insects, the black and San Jose scales also attack Rhamnus. Aphids quite easily can be controlled with Tempo 2 or Orthene 75S. Scale insects are more difficult to control. However, horticultural oil sprays, Orthene 75S or a combination of the two applied twice at 7-10 day intervals would probably work fine.

According to Dr. Dale Pollet, entomologist with the LSU Agriculture Center, European red mites, whiteflies and a leaf tier also attack Carolina Buckthorn. Tempo 2 and Pounce 3.2 EC are recommended to control whiteflies. Di Syston 15%G is labeled for both whitefly and mites and Turcam is labeled for various scale insects, and whitefly.

Buckthorn is scarce in the nursery trade. I found it listed in the 1990-92 Louisiana Nursery catalog, Rt. 7 Box 43, Opelousas, LA 70570 (318) 948-3696 or (318) 942-6404. And Natives Landscape Corp, 320 N. Theard, Covington, LA 70433, (504) 892-5424 also has it.

I hope this plant will become more available in the nursery trade. Especially since propagation shouldn't be a real problem.

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