Vol. 22/NO. 2
SUMMER 2021

CREENTINGES

The Official Publication of The Tennessee Nursery and Landscape Association

A Growing Future:
Statewide Economic Impacts
of the Tennessee Nursery Industry

Enhancing the Green Industry through Horticultural Therapy

PLUS





## **Decker's Nursery**





#### NewGen Freedom® Boxwood (Buxus x NewGen Freedom® 'SB 300' PP32421)

NewGen Freedom® is a relatively vigorous, rounded cultivar that is slightly taller than wide. It has beautiful glossy medium green foliage. Its habit is more uniform and tighter than 'Wintergreen' or 'Winter Gem' thus making it an excellent choice for many formal and residential landscapes. Deer resistant! Fast Growth Rate – 3-6" per year. Substitute for 'Wintergreen, 'Green Mountain'.

<b>Exposure:</b> Full Sun – Part Shade	<b>Shrub Type:</b> Deciduous	<b>Water:</b> Average
<b>Mature Size:</b>	Flower Shade:	Maintenance:
3.5' – 5'	N \ A	Low
Spread:	<b>Foliage:</b>	Hardiness Zones:
3.5'	Green	5 – 8
Plant Type:	<b>Habit:</b>	<b>Uses:</b> Landscape,
Shrub	Upright	Focal Point

## NewGen Independence<sup>™</sup> Boxwood (Buxus x NewGen Independence<sup>®</sup> 'SB108' PP28888)

NewGen Independence® is a very deep green medium sized cultivar that holds excellent color throughout the winter. It has a rounded habit that is nearly as tall as wide. Can be used in formal plantings where a medium sized round plant is desired. Branching structure is very strong allowing it to withstand most moderate to heavy snow loads. Substitute for 'Green Velvet', 'Green Mound'.

<b>Exposure:</b>	Shrub Type:	<b>Water:</b>
Full Sun – Part Shade	deciduous	Average
Mature Size:	Flower Shade:	Maintenance:
3'	N \ A	Low
Spread:	Foliage:	Hardiness Zones:
4.5'	Green	5 – 8
Plant Type:	<b>Habit:</b>	<b>Uses:</b> Landscape,
Shrub	Rounded	Focal Point

BETTER TOLERANCE OF BOXWOOD BLIGHT – BETTER RESISTANCE TO BOXWOOD LEAFMINER FINISHED STOCK COMING SOON AND LINERS AVAILABLE NOW

NEW WEBSITE, ORDER ONLINE:

www.DeckersNursery.com

Contact: Adam Brown, Sales Manager - sales@deckersnursery.com or (614) 836-2130



# GREENTIMES

The Official Publication of The Tennessee Nursery and Landscape Association

VOL. 22/NO. 2 - SUMMER 2021







COVER STORY

FEATURE ARTICLE

FEATURE ARTICLE

A Growing Future: Statewide Economic Impacts of the Tennessee Nursery Industry 10

Enhancing the Green Industry through Horticultural Therapy

14

Greening Safety City

22

#### MORE FEATURES

#### **DEPARTMENTS**

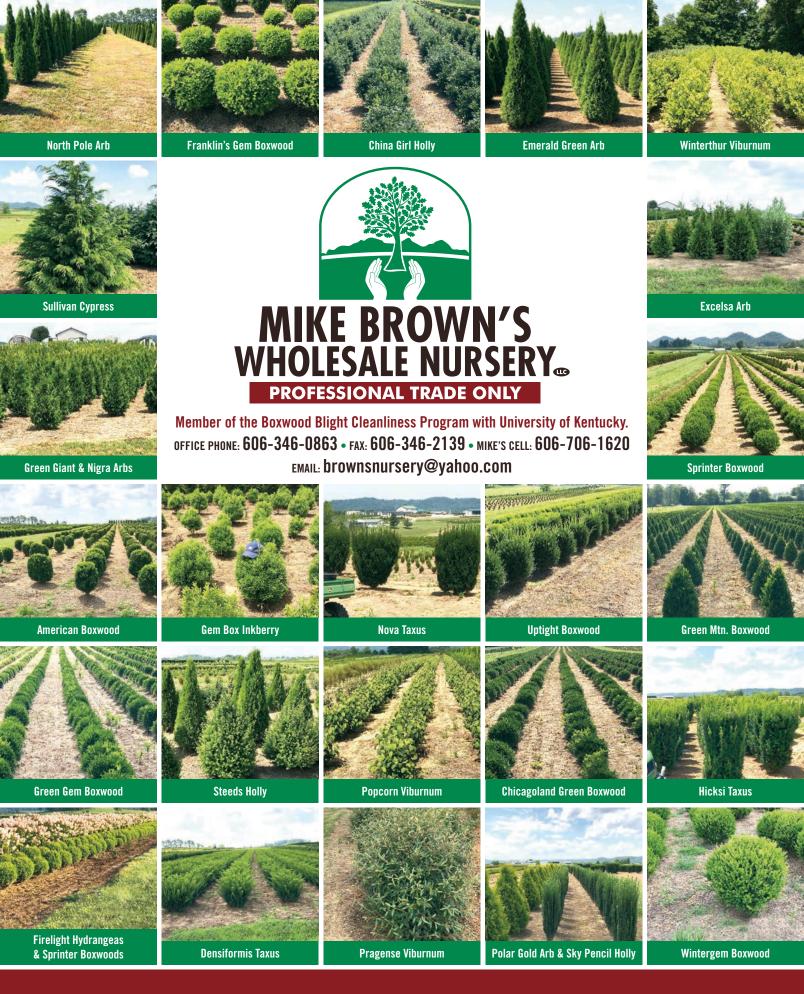
From the President	6
TNLA Sponsors	6
News from TNLA	8
Index of Advertisers	27







The Tennessee Nursery and Landscape Association serves its members in the industry through education, promotion and representation. The statements and opinions expressed herein are those of the individual authors and do not necessarily represent the views of the association, its staff, or its board of directors, Tennessee GreenTimes, or its editors. Likewise, the appearance of advertisers, or their identification as Tennessee Nursery and Landscape Association members, does not constitute an endorsement of the products or services featured in this, past or subsequent issues of this quarterly publication. Copyright ©2021 by the Tennessee Nursery and Landscape Association. Tennessee Green Times is published quarterly. Subscriptions are complimentary to members of the Tennessee Nursery and Landscape Association Third-class postage is paid at Jefferson City, MO. Printed in the U.S.A. Reprints and Submissions: Tennessee GreenTimes allows reprinting of material. Permission requests should be directed to the Tennessee Nursery and Landscape Association. We are not responsible for unsolicited freelance manuscripts and photographs. Contact the managing editor for contribution information. Advertising: For display and classified advertising rates and insertions, please contact Leading Edge Communications, LLC, 206 Bridge Street, Suite 200, Franklin, TN 37064, (615) 790-3718, Fax (615) 794-4524.



#### From the President Morgan Adcock



TNLA would like to thank the following companies for being

### Membership SPONSORS

#### **GOLD MEMBERSHIP SPONSORS**

**BASF** Blankenship Farms and Nursery Bobcat of McMinnville Botanico, Inc. Carpe Diem Farms Flower City Nurseries Griffin Greenhouse Supply Living Earth Nashville Nashville Landscape Systems, Inc. Nufarm Americas, Inc. Putnals Premium Pine Straw, Inc. Randall Walker Farms Riverbend Nurseries, LLC Safeguard Nursery Products Scenic Hills Nursery Swafford Nursery, Inc. Tennessee 811 Tennessee Wholesale Nursery, LLC Trivett's Nursery Turf Mountain Sod Volunteer Turf, LLC Warren County Nursery, Inc. Youngblood Farms

#### SILVER MEMBERSHIP **SPONSORS**

Bert Driver Nursery BioSafe Systems BWI of Memphis Day Lily Nursery Dayton Bag & Burlap Co. Old Courthouse Nursery Samara Farms

# WIND in OUR SAILS

hat a whirlwind! As we roll past spring and into summer, I feel the need to slow down, take a breath, and reflect on how exciting it is to be a part of this industry. Spring saw soaring sales and a growing demand for product, not just regionally, but across the country.

The nursery industry has always had its challenges and rewards. While 2020 had many challenges, it also brought rewards for our industry. There are sure to be more challenges in the near future such as cicadas entering our region and tree shortages around the country due to the Texas freeze. But after a backbreaking spring, I believe we all deserve to take time to celebrate the successes of our industry this past season.

There will be several opportunities to celebrate Tennessee horticulture. The University of Tennessee is hosting a virtual Green Industry Field Day, June 29th. We are also hosting the second annual TNLA Green Industry Celebration on September 23, 2021. I invite all those in the industry to come out for a day of business and fun. Heck, come down for the whole week and tour many of the great nurseries and garden centers throughout the mid-state. Our annual golf tournament is scheduled to take place September 24th. Stay tuned for more updates and details. We look forward to seeing you there!



One last thing, I encourage you to check out TNLA's updated website! We are now able to accept membership applications and payment online. Be sure to spread the word to interested potential members!

Respectfully submitted,

Morgan Adcock TNLA President

The Tennessee Greentimes is the official publication of The Tennessee Nursery & Landscape Association, Inc.

115 Lyon Street McMinnville, Tennessee 37110 (931) 473-3951 Fax (931) 473-5883 www.tnla.com Email: mail@tnla.com

#### Published by

Leading Edge Communications, LLC 206 Bridge Street, Suite 200 Franklin, Tennessee 37064 (615) 790-3718 Fax (615) 794-4524 Email: info@leadingedge communications.com

#### **Editors**

Dr. Bill Klingeman Dr. Amy Fulcher

#### Associate Editors

Dr. Nick Gawel Dr. Frank Hale

Dr. John Sorochan

#### **TNLA Officers** President Morgan Adcock Scenic Hills Nursery

1st Vice President Michael Gallagher Heather Farms Nursery

2nd Vice President Terri Turner Turner & Son's Nursery

3rd Vice President Stephaine Bryan Freedom Tree Farms

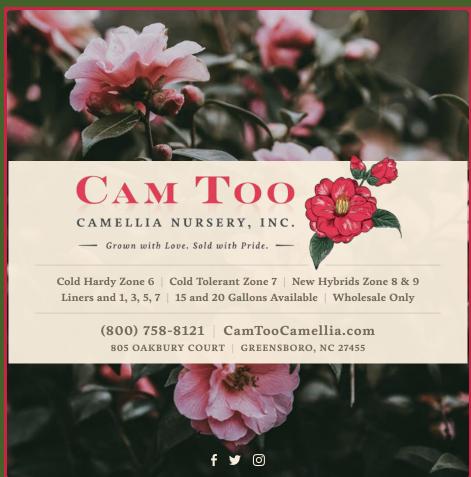
Secretary-Treasurer Cody Walker Walker Nursery Co.

**Associate Director** Chris Hackler Drees Plant Wholesalers

Ex-Officio Bert Driver Bert Driver Nursery

**Executive Director** 

Louree Walker





## Welcome NEW MEMBERS:

#### **ACTIVE**

#### Clifford's Perennial & Vine John or Rachel Clifford 3830 Nashville Hwy. Lewisburg, TN 37091

#### Home Nursery, Inc. Ann Tosovsky 10264 Smithville Hwy. McMinnville, TN 37110

## J & D Nursery David Crowe 7527 McMinnville Hwy. Smithville, TN 37166

#### Panter & Sunderland Nursery Charlie Sunderland 982 Northcutt Cove Road McMinnville, TN 37110

## Calendar OF EVENTS

#### JUNE 29, 2021

#### Green Industry Field Day (Virtual)

Hosted by TNLA and the University of Tennessee

Please visit the TNLA website www.tnla.com (Events) for more information, the registration link, and the program.

4 pesticide C3, C10, C12 credits are available for the program.

#### SEPTEMBER 23, 2021

#### Green Industry Celebration

NYP Corporation, McMinnville, TN

Please visit the TNLA website www.tnla.com for information regarding exhibiting, sponsoring, etc.

## SEPTEMBER 24. 2021

## TNLA Golf Tournament

McMinnville Country Club

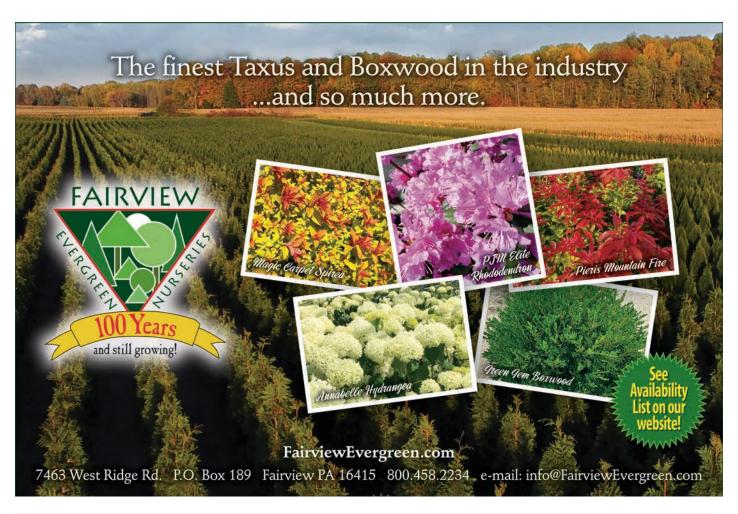
For more information and to register, www.tnla.com

## SEPTEMBER 30 - OCTOBER I, 2021

#### Middle Tennessee Nursery Association Trade Show

Milner Recreation Center (formerly McMinnville Civic Center)

www.mtna.com for information regarding exhibiting, sponsoring, etc





**DON BROOKSHIRE** - Sales Representative **Phone:** (800) 831-2599 **Cell:** (704) 533-3442

Email: donnieb45@gmail.com www.surfacenursery.com

SURFACE NURSERY 33740 SE Lusted Road Gresham, OR 97080

# GROWING FUTURE:

Statewide Economic Impacts of the Tennessee Nursery Industry

Amy Fulcher, UT Department of Plant Sciences Jared Bruhin, UT Center for Profitable Agriculture Burt English, Kim Jensen, and Jamey Menard, UT Department of Agricultural and Resource Economics Susan Schexnayder, UT Department of Forestry, Wildlife and Fisheries

2020, a consortium1 of Green Industry and UT entities worked in partnership to conduct a survey of the Tennessee Green Industry. Respondents were asked to answer based on their 2019 economic information or the most recent 3 years. This survey allowed for a current, comprehensive analysis of the impact of the Green Industry to the state of Tennessee's economy, including jobs. This analysis was conducted using the economic input/ output model, which determined both the direct and indirect impacts of the industry.

The survey was distributed to Tennessee Department of Agriculture license holders in nursery (581), greenhouse (257), and dealer (542) categories for a total of 1,380 survey recipients. There were 258 survey responses. Responses were divided into wholesale only, wholesale with some retail, or retailer/broker - no production. In this article, nursery and greenhouse firm data are combined and results are reported for wholesale only and wholesale with some retail sales.



at wholesale only firms was 10:

5.5	1.1 non-H2A,
full-time	temporary or seasonal
1.5	1.9
part-time	H2A

and the average annual payroll for these nurseries was \$370,071.

The average number of nursery employees at wholesale nurseries with some retail sales was 11.9:

7.1	1.0 non-H2A,
full-time	temporary or seasonal
3.8	0
part-time	H2A

and the average annual payroll was \$283,546.

<sup>&</sup>lt;sup>1</sup> Middle Tennessee Nursery Association, Tennessee Nursery and Landscape Association, Tennessee Department of Agriculture, UT Extension, UT Center for Profitable Agriculture, and the UT Human Dimensions Research Lab.





For both wholesale only and wholesale with some retail sales, 62% of bare-root and container liners are purchased from other Tennessee nurseries and 59% of other liners such as seeds and plugs come from instate. For all other expenses, ranging from inputs and expenses such as irrigation, burlap, fertilizer, and insurance, at least 90% were purchased in Tennessee. Average expenditures were \$219,240 for wholesale only and \$195,514 for wholesale nurseries with some retail sales. The largest expenses were:

- liners
- container substrate and soil conditioners
- insurance

The IMPLAN economic impact model accounts for the impacts of the nursery and greenhouse industry's economic activity on other segments of the economy and calculates its direct contributions as well as the indirect, multiplier effect it has on the state's overall economy. The direct impacts are captured from the sales of nursery and greenhouse crops. The two indirect impacts are accounted for in the model as 1) the nursery industry's purchases of inputs such as fertilizer or liners, and services performed, such as repairs to a greenhouse cooling system, and 2) employee wages and salaries and the items and services that are

purchased by nursery and greenhouse employees. These indirect impacts can be thought of as the trickledown effect of the nurseries and greenhouses on the state's economy.

#### **Economic Impact of Nursery Expenditures**

When considering expenditures, wholesale only nurseries contribute over \$155,000,000 in economic activity to the state; the wholesale with some retail expenditures were responsible for an additional \$86,600,000 in statewide economic activity. The total employment contribution included 1,633 direct jobs and 701 indirect jobs for wholesale only and those firms with some retail combined. Nursery and greenhouse expenditures generated \$11.2 million in state and local taxes.

The primary industries impacted by Tennessee nursery and greenhouse industry expenditures are:

- greenhouse and nursery production
- businesses providing support services for agriculture and forestry
- insurance firms
- building supply companies and garden supply stores
- · lawn and garden equipment manufacturing



#### Jobs Supported by Nursery Expenditures and Owner and Employee Spending

Tennessee nursery and greenhouse business expenditures primarily support jobs in the following sectors:

- support activities for agriculture and forestry
- greenhouse and nursery production
- building and garden supply stores
- automotive repair and maintenance
- · commercial and industrial machinery and equipment repair and maintenance

Spending by nursery owners and employees also has a positive impact on the state's economy and supported employment primarily in:

- full and limited-service restaurants
- hospitals and physicians
- general merchandise retail stores

#### Economic Impact of Nursery Expenditures, Payroll and Net Returns

Nursery expenditures, owner and employee payroll, and net returns all contribute to the nursery and greenhouse industry's impact on the state's economy. The individual effect of nursery expenditures is presented above. The individual effects of nursery payroll and net returns are available in the article "Estimated economic contributions from the nursery/greenhouse industry in Tennessee" listed at the end of this article.

#### Limitations

Readers are reminded these results reflect a single year of data, 2019. Additionally, COVID-19 may have influenced the results. This survey did not account for land rents, capital outlays for buildings and equipment, management wages, and other fixed costs in the net return calculations. Additionally, a separate analysis is required to capture end user expenditures such as from home gardeners.

The complete economic analysis can be accessed at:

https://ag.tennessee.edu/arec/Documents/ publications/RR\_20\_001\_\_003.pdf

and should be cited as:

Jensen, K.L., B. English, J. Menard, S. Schexnayder, J. Bruhin, and A. Fulcher. 2020. Estimated economic contributions from the nursery/greenhouse industry in Tennessee. University of Tennessee, Department of Agricultural and Resource Economics, RR 20-001.

## Economic Impact of the Tennessee Green Industry

#### **ECONOMIC IMPACT**



The Tennessee nursery and greenhouse wholesale industry, including those wholesalers with some retail sales, was projected to directly contribute \$830,900,000 in economic activity to the state's economy in 2020. After accounting for multiplier effects, the total impact was projected at \$1,546,100,000.

#### TAX **REVENUE**

The Tennessee nursery and greenhouse wholesale industry, including those wholesalers with some retail sales, was projected to contribute \$44,200,000 in state and local taxes in 2020.



#### **JOBS**

The nursery and greenhouse industry was estimated to employ 13,126 people and with multiplier effects, support 19,409 total jobs in 2020.

#### **FUTURE GROWTH**

The Tennessee nursery and greenhouse industry indicated they anticipate their nursery sales will grow on average 16.5% over the next five years.



## Enhancing the Green Industry through **HORTICULTURAL THERAPY**

By Dr. Derrick Stowell, CTRS, HTR Education and Horticultural Therapy Program Administrator, UT Gardens, Department of Plant Sciences

use of horticulture as therapy has existed in the United States for many years. The formal development of horticultural therapy as a profession is recognized to have begun with the creation of the National Council for Therapy and Rehabilitation through Horticulture (NCTRH) in 1973. In 1983, NCTRH changed its name to the American Horticultural Therapy Association (AHTA). The AHTA sets the standards for Horticultural Therapy practice and offers a professional registration system

Renewed interest in horticultural therapy has increased demand for new educational programs to serve and train potential practitioners. This renewed interest is due to several factors including a heightened awareness of emerging and ongoing environmental issues, new focus on benefits of nature and the people-plant connection, and growing interest in gardening among the general public. The COVID-19 pandemic has also played a role in enthusiasm and desire to learn more about gardening. Tracey Tally, who is an executive board member of the American Seed Trade Association, recently stated that the demand for seeds in 2020 "tripled in size" (Russell, 2020). As people began spending more time outside due to social-distancing guidelines and people started planting vegetable gardens to provide food during uncertain times, new opportunities for both the green industry and horticultural therapy

The growing interest in gardening is helping increase interest in horticultural therapy. As a quick definition, horticultural therapy is the "participation in horticultural activities facilitated by a registered horticultural therapist to achieve specific goals within an established treatment, rehabilitation, or vocational plan (AHTA, 2017)." horticultural therapy is uniquely positioned to not only raise awareness of the green industry to the broader community, but it can also connect elements of horticulture/agriculture production, sustainability issues, and health and wellness to a larger audience.

To meet this need, colleges and botanical gardens around the country offer classes and programs in the therapeutic use of horticulture (Fig. 1, 2). These classes and programs often help interest healthcare professionals and horticulture students in accessing more formal education opportunities related to horticultural therapy (Fig. 3). The University of Tennessee (UT) and UT Gardens has recently created a new undergraduate certificate in horticultural therapy. This program is scheduled to begin in Fall of 2021. Importantly, this new horticultural therapy certificate program has been accredited by the AHTA. Applications for this new certificate program will be available pending final approval from the Southern Association of Colleges and Schools Commission on Colleges.



Fig. 2: Student-generated drawings were evaluated and the winning design was implemented at a horticultural therapy venue.





Fig. 3: Pennisula Behavorial Health Hospital (before). Staff and patients perceive the outdoor space to be uninviting and non-therapeutic.



Fig. 4: Pennisula Behavorial Health Hospital (after). After mixed species of greenscape installation and screened seating, the therapeutic garden is a therapeutic and welcoming green space.



Continued

The University of Tennessee's Horticultural Therapy certificate program, which has been designed for access by working professionals, will be delivered in an accelerated, hybrid format. The certificate consists of three college-level for-credit courses arranged to provide a total of nine hours of college credit. Students completing the certificate with a grade of C or better will have fulfilled the horticultural therapy coursework requirements for AHTA's professional registration. This certificate program is designed to give students the opportunity to learn about horticultural therapy and develop a horticultural therapy program plan that they can use in their own practice. The horticultural therapy certificate at UT has already received interest from students from across disciplines, such as plant sciences, agriculture, psychology, counseling and education.

As this interest suggests, horticultural therapy is interdisciplinary by nature and incorporates expertise and experience across agriculturerelated professions and education, as well as health care-related professions and education (Fig. 2-4). One way that the agriculture/horticulture industry can reach a broader awareness among the general population is to utilize the connections made by horticultural therapists. As an example, the UT Gardens' Horticultural Therapy program has served over 7,000 individuals with health conditions or disabilities and provided training, consulting, and therapeutic garden design for over 2,000 health care professionals since its creation in 2012. Numerous professionals have benefited from the services offered by the UT Gardens including assisted living/long-term care facilities, behavioral health, psychology, education, and veterans' programs (Fig. 1).

UT Gardens' Horticultural Therapy program has collaborated on federal grants with organizations such as Tennessee AgrAbility Project that connects veterans to agriculture and the therapeutic benefits of horticulture. This summer, the UT Gardens Horticultural Therapy program is collaborating with a PhD student in Psychology to design and conduct a pilot program that will help measure the impact of horticultural therapy on pandemic-related stress. Additional collaborations across disciplines will continue to offer opportunities for research and program development.

For more information on the University of Tennessee Horticultural Therapy programs contact Dr. Derrick Stowell, HTR, CTRS at 865-974-7151 or dstowell@utk.edu

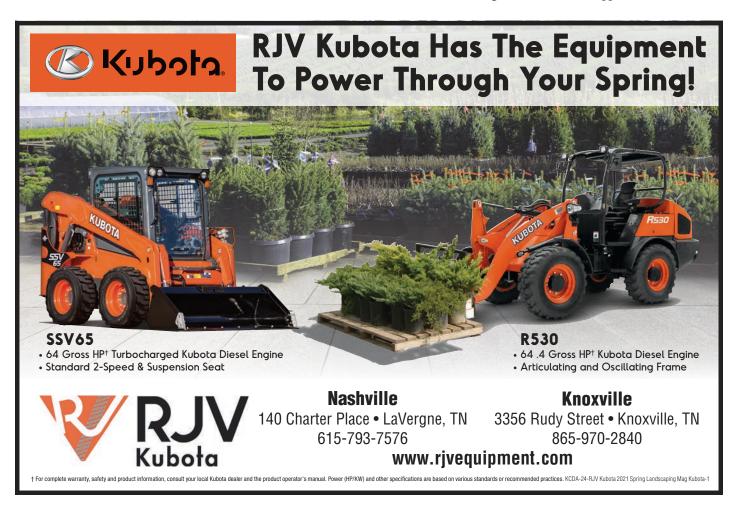
For more information about professional registration through AHTA visit: https://www.ahta.org/professional-registration/

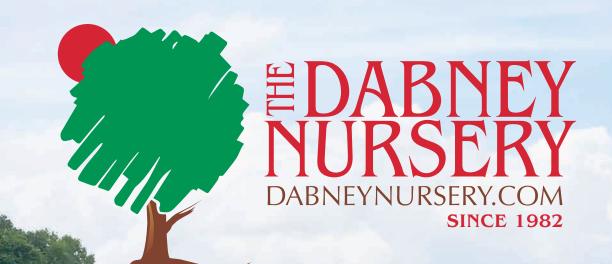
#### ADDITIONAL READING

American Horticultural Therapy Association (n.d.). About the American Horticultural Therapy Association. Retrieved April 15, 2021 https://www.ahta.org/about-ahta

American Horticultural Therapy Association (2017). AHTA Definitions and Positions. Retrieved April 15, 2021 https://ahta.memberclicks.net/ assets/docs/definitions%20and%20positions%20final%206.17.pdf

Russell, A. (2020). Need for vegetable seeds strains supplies. AgriLife Today. Retrieved April 15, 2021 https://agrilifetoday.tamu.edu/2020/ 04/20/need-for-vegetable-seed-strains-supplies/





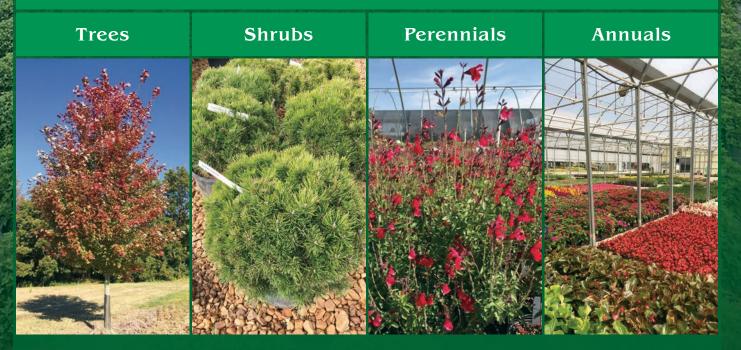
## Mid-South's Largest Selection of Plants!

We offer healthy, quality plants for the Mid-South's climate & soil.

The Dabney Nursery grows more than 75% of our plants in stock, including trees, roses, hydrangeas, hostas, perennials & annuals. Our field grown trees are grown in our own clay soil, making them well adapted to the surrounding community.

Open Year-Round! Mon-Sat 8am-5pm

Quality Landscaping Plants for Retail & Wholesale Customers



## DABNEYNURSERY.COM

5576 HACKS CROSS ROAD MEMPHIS, TN 38125 1-901-755-4037 info@dabneynursery.com

# Pandemic Buying



## Southeastern U.S. Consumers' Plant Shopping Behaviors During and After the COVID-19 Pandemic



By Dr. Alicia L. Rihn1,

Dr. Benjamin Campbell<sup>2</sup>, and Dr. Julie Campbell<sup>3</sup>

<sup>1</sup>Assistant Professor in the Department of Agricultural and Resource Economics at The University of Tennessee

<sup>2</sup>Associate Professor in the Department of Agricultural and Applied Economics at the University of Georgia.

<sup>3</sup>Assistant Research Scientist in the Horticulture Department at the University of Georgia

COVID-19 pandemic introduced a lot of uncertainty for firms and consumers alike from lockdown to supply chain disruptions to safety concerns. As the Green Industry ramps up for 2021, supply chain disruptions are being felt, which is troublesome given the bumper year in sales that 2020 turned out to be. Many homeowners and consumers turned to gardening and landscaping projects as healthy activities during lockdown. Ideally, 2021 will follow similar trends with more consumers valuing and engaging in horticulture-related activities. As consumers seek out products for this upcoming growing season, it is important to be aware of how COVID-19 has impacted their shopping behavior and to consider potential actions retailers could take to meet their consumers' needs.

In 2020, Green Industry retailers altered their shopping policies (Figure 1) and delivery options to aid in minimizing disease spread while still meeting consumers' needs. Specifically, online ordering/ delivery and curbside pickup options were added which are quite different from brick and mortar stores that typically dominate the industry's retail landscape. In 2018 for instance, 82% of firms selling plants were not using online sales methods, yet direct-to-consumer online sales accounted for the majority of consumer purchases for other items (Baker et al., 2018).

A joint research effort by University of Georgia and University of Tennessee researchers used an online survey to address the question of how consumer shopping behaviors for ornamental plants changed due to the pandemic and how consumers intend to shop for plants in a postpandemic world. Data was collected in July 2020, and 670 consumers from the southeastern U.S. (including people from Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee) participated in the research. The majority of respondents indicated they were under a city/county or state stay-at-home order at the time of the study. Respondents indicated they spent \$586 on lawn and gardening activities in 2019 with \$204 on landscaping plants. In 2020, respondents' expenditures increased 3.4% and 4.6% compared to their spending in 2019. Similarly, curbside pickup and online expenditures increased 4.6% and 4.1% between 2019 and 2020. This equates to approximately \$306.4 million in additional sales in January-July, 2020, when compared to the same time frame in 2019 provided that 77% of households participate in lawn/gardening activities and the number of households in the southeast stays consistent (Cohen & Baldwin, 2018; U.S. Census Bureau, 2019).



Table 1<sup>a</sup>. Anticipated Changes in Consumers' Plant Purchasing Activities After the Pandemic

#### PURCHASING HABITS AFTER PANDEMIC (% of Sample)

State	Number of Responses	Similar to Before Pandemic	Similar to During Pandemic	Combination of Before/ During Pandemic
Alabama	67	48%	20%	31%
Florida	121	53%	17%	30%
Georgia	168	58%	20%	22%
Louisiana	37	49%	22%	30%
Mississippi	25	67%	17%	17%
North Carolina	63	60%	17%	23%
South Carolina	120	58%	19%	23%
Tennessee	69	58%	14%	18%
Total	670	57%	18%	25%

a Information from this table is reproduced (with permission form the authors) from publication by Campbell et al. 2020 (UT Agricultural and Resource Economics Extension Report W951).



Respondents were asked to indicate how their plant shopping behavior changed during the pandemic and how they anticipated it changing in a post-pandemic world. The majority (57%) indicated they plan on reverting to their pre-pandemic shopping habits while 43% stated they would change their plant purchasing habits in some way (Table 1). Tennessee respondents were more likely to revert back to pre-pandemic shopping habits than respondents from Georgia. Gen-X consumers were less likely to revert back to pre-pandemic shopping habits than Baby Boomers. Interestingly, respondents who participate in curbside pickup were more likely to revert to pre-pandemic shopping habits while those who purchased more plants online were less likely to revert back to pre-pandemic habits. As consumers become familiar with online purchases, their acceptance and trust of plants received via that avenue are expected to increase. Additionally, online shopping provides consumers with greater access to products that they may not have been exposed to through traditional methods. This is likely to be particularly true for consumers who have not had easy access to garden centers or other brick and mortar establishments. Responses about curbside pickup preferences may reflect the perspectives of consumers who view shopping for plants as an event. For these customers, the trip, the store atmosphere, and on-site interactions are likely to be part of their draw and enjoyment of home gardening and landscaping.

Together, survey feedback from consumers suggests that retailers should carefully consider the trends they are seeing among their customer base, and consider practices and protections that can be implemented to address concerns and special needs to protect your customers (Figure 2). Consider investing in online shopping options if that is what their customers are trending toward. Conversely, the results imply that curbside pickup is less likely to persist in a postpandemic world, so investing in the curbside pickup experience may be less of a priority.

For the complete manuscript, please view:

Campbell, B.L., A.L. Rihn, and J.H. Campbell. 2021. Impact of the coronavirus pandemic on plant purchasing in Southeastern United States. Agribusiness, 37:160-170. https://doi.org/10. 1002/agr.21685. An Extension publication by the authors (W951) also is available that shares these results.



Baker, L.M., C.R. Boyer, H.H. Peterson, and A.E.H. King. 2018. Online opportunities: A quantitative content analysis benchmark study of online retail plant sales. HortTechnology, 28(4):516-523.

LITERATURE CITED:

Campbell, B., A. Rihn, & J. Campbell. 2020. Preliminary Changes in COVID-19 Purchasing Habits of Southeastern US Green Industry Consumers. University of Tennessee Agricultural and Resource Economics Extension Report W951.

Cohen, P., and I. Baldwin. 2018. National Gardening Survey, 2018. https://gardenresearch.com.

U.S. Census Bureau. 2019. QuickFacts. http://www.census.gov/quickfacts/fact/ table/US/PST045219.

# GREENING SAFETY CITY

A Unique Partnership Between the Knoxville Police Department and UT Forestry Faculty Connects Students with Green Infrastructure Opportunities

By Robert Walker Fowler, Forestry Masters student; Dr. Sharon Jean-Philippe, Associate Professor;

David Vandergriff, Adjunct Assistant Professor in the UT Forestry, Wildlife & Fisheries Department;

Seth Zanoni and Sam Daniel, Master of Landscape Architecture students in the School of Landscape Architecture;

and Dr. Jennifer Richards, Assistant Professor in the UT Agriculture Leadership, Education and Communication Department April 15th 2021, students and faculty from the University of Tennessee's forestry and landscape architecture departments joined the Knoxville Police Department and local businesses in a tree planting event at Safety City Park. More than thirty volunteers from these groups came together to plant twenty-seven trees throughout the park. This was the culmination of a year's work undertaken by students at the university, and the first step in what is hoped to be a continuing partnership between KPD and UTK students at Safety City.

Established in about 2000, KPD's Safety City complex was created to teach skills and good safety habits to K through 4th grade elementary school-aged students about vehicular, pedestrian, bicycle, and fire safety. Enclosed within the Knox County park, Safety City is a completely miniaturized community. The facility has roadways, crosswalks, smallscale buildings, traffic signs and signals, and replica housing. Hands-on exercises include classroom instruction and role-playing, a simulated fire event that teaches how to work with firefighters and safely escape from a building, and the instructional visit culminates with attendees piloting child-sized vehicles around the community while safely navigating the roads and following traffic signs and signals. What Safety City lacked was tree canopy coverage. Safety City's most active season is in the summer months when children attendees are on summer break from school. Safety City, which has a high proportion of impervious surfaces with little shade from trees, had become a perfect microcosm of the urban heat island effect.

More than 30 volunteers joined KPD officers, Safety City staff, and UT Forestry faculty and students on the April 15, 2021 planting event.





# ODOM NURSERY

QUALITY. DEPENDABILITY. SERVICE.

Odom Nursery is a 1200 acre B&B nursery located in Morrison, Tennessee.

For over 30 years we have been producing quality shade and flowering trees, shrubs and evergreens.

We are presently shipping to garden centers, landscape contractors, Re-wholesalers throughout much of the eastern half of the US.



931-635-3101 · OdomNursery.com

10279 MANCHESTER HWY. • MORRISON, TN. 37357 We strive to raise the bar every day.

#### FEATURE ARTICLE Continued

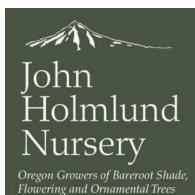
To help address this critical, and missing, aspect of community infrastructure, Knoxville police reached out the forestry faculty at UT a year prior to the planting event with their problem and a request for assistance. Educators at Safety City hoped that the urban forestry department at UT would provide guidance and assistance in establishing a functional tree canopy that would provide cooling shade for visitors. After agreeing to help, forestry students and faculty enlisted the help of landscape architecture students at UT to design a functional and aesthetic plan that would meet the challenges and needs of the Safety City facility. Twelve hardy tree species were selected to be placed throughout the park with the goals of maximizing canopy coverage and improving landscape aesthetics.

UT Landscape Architecture students Sam Daniel and Seth Zanoni worked with Walker Fowler and Maya Rao on the Planting Plan for Safety City in Knoxville, TN.



Twenty-seven balled and burlapped trees were donated by SiteOne Landscape Supplies, with planting hole excavation contributed by Terry Raby of Airtech Tools.





## Thank you.

From all of us at John Holmlund Nursery. We appreciate your business over the years and value the relationships that we have with you, our loyal customers.

Scott Field and





The Turf Zone.com is the central hub for turf grass research and information from multiple state turf associations.

# 251 Podcasts

and Many More to Come!

113 ISSUES of Turfgrass Magazines

33,000+ Annual Digital Impressions

**DOZENS** of Upcoming Events

### **#THETURFZONE**

Learn how your company can sponsor or advertise! TheTurfZone.com/advertising-inquiry

888-707-7141

facebook.com/theturfzone



twitter.com/theturfzone

Once a plan was chosen, students began recruiting the help of local businesses to overcome budgetary constraints and acquire all the needed material for a successful planting. Trees in the plan, which included Hawthorne (Crataegus spp.), Ginkgo (G. biloba), Kentucky Coffeetree (Gymnocladus dioicus), Sweetgum (Liquidambar styraciflua), Tulip Poplar (Liriodendron tulipifera), Sycamore (Platanus occidentalis), White Oak (Quercus alba), Weeping Willow (Salix babylonica), Bald Cypress (Taxodium distichum), and Princeton Elm (Ulmus americana), were donated by SiteOne Landscaping Supply of Knoxville, TN. The team was also extremely grateful for the time and effort volunteered by Terry Raby with Airtech Tools, also Knoxville-based, who excavated all of the tree planting holes for the project. Finally, planning came to fruition: Safety City now has a miniature urban forest which, at maturity, will provide many benefits for the park and its users.

Although the planting is concluded, the project is a continuing effort for students at UT. Now that the trees are installed, students and faculty plan to take advantage of the park's educational mission. Age-appropriate outreach materials and lesson plans are being developed to educate visitors about how an urban forest functions and the benefits that urban forests provide. Lesson plans will be prepared for local educators whose classes visit Safety City. Educational signage will also be created for placement alongside the trees planted into the park. The ultimate goal of the project is not only to provide the benefits of a healthy urban forest, but to make visitors aware of these benefits and engage young visitors' growing interest in our natural world.



Twenty-seven balled and burlapped trees were donated by SiteOne Landscape Supplies, with planting hole excavation contributed by Terry Raby of Airtech Tools.



New BASEWELL Rooted Cutting Technology

Don Blocker Sales Representative

> Louisville, KY C: 502-681-8073 F: 866-521-8353

dblocker@mchutchison.com mchutchison.com



#### To Discuss **ADVERTISING OPPORTUNITIES**

Contact Leading Edge Communications

615-790-3718 888-707-7141 (Toll Free)

sales@leadingedgecommunications.com www.LeadingEdgeCommunications.com

#### INDEX OF ADVERTISERS

Brown's Nursery 5
Cam Too Camellia Nursery, Inc. 7 www.camtoocamellia.com
Dabney Nursery 17 dabneynursery.com
Decker's Nursery, Inc Inside Front Cover www.deckersnursery.com
Ditch Witch of Tennessee 16 www.ditchwitchtn.com
Fairview Evergreen Nurseries 9 www.fairviewevergreen.com
Hidden Valley Nursery, LLC 27 www.hiddenvalleynursery.com
Hoover & Son Insurance 27
Jelitto Perennial Seeds 21 www.jelitto.com
John Holmlund Nursery 25 www.jhnsy.com
Leading Edge Communications 25 www.LeadingEdgeCommunications.com
McHutchison, Inc. 26 www.mchutchison.com
Mid Tenn Turf 12 www.midtennturf.com
Odom Nursery 23 odomnursery.com
Richey Nursery Company, LLC 26 www.richeynursery.com
Smith Seed Services 27 www.smithseed.com
Surface Nursery Inc. 9 www.surfacenursery.com
Tennessee 811
The Turfgrass Group 3 www.theturfgrassgroup.com
Tree Equipment Design, Inc. 27 www.treeequip.com
Wellmaster Carts Back Cover

#### **HOOVER & SON INSURANCE**

HAS BEEN SERVING THE PEOPLE OF WARREN AND SURROUNDING COUNTIES SINCE 1901.

We can provide insurance and financial services in the following areas:

Auto Insurance Workers Compensation Bonds

Flood Insurance Farmowners Insurance Boat & Yacht Insurance

Life Insurance Motorcycle Insurance Health Insurance

**HOOVER & SON**INSURANCE AGENCY

931-473-2200 · HOOVERINS.com

114 S. Court Sq. McMinnville, TN 37110





## PROFESSIONALS TRUST TITAN

proven genetics for over 30 years titanfescue.com

#### Digital MARKETPLACE

Download your favorite QR reader to your phone and scan the code to learn more.



# **SOWWELLMASTER™**

Make a Difference.

1494 Bell Mill Road, P.O. Box 456, Tillsonburg, ON, Canada, N4G 4J1

P.O. Box 2663, Buffalo, NY, USA, 14240-2663 Phone: 519.688.0500 • Toll Free: 800.387.9355 Fax: 519.688.0563 • Online: wellmaster.ca/tgt/





Introducing Wellmaster's **Hand Sanitizer Pump**. Visit wellmaster.ca/tgt/ for our demonstration video!



• For transporting a wide variety of products from the field to the nursery, greenhouse or garden center.

To start shopping visit wellmaster.ca/tgt/

E STRIKE HALL



#### 44" x 46" Nursery Cart

• For shipping a wide variety of products including pots, perennials, and hanging baskets.



#### 43" x 48" Folding Cart

• For shipping a wide variety of products including pots, perennials, and hanging baskets.