Photo Credit: Wisconsin DNR

RESULTS OF THE 2020 DIVERSE URBAN TREE SPECIES SURVEY

EXECUTIVE SUMMARY

In August 2020, the Wisconsin Department of Natural Resources (DNR) mailed a 15-question urban tree species diversity survey to all Wisconsin municipalities with more than 2,500 residents. Respondents were asked a series of questions about the types of trees they prefer to plant (such as root stock type and caliper size), which lesser-used species they had successfully planted, which species they cannot find but would like to plant, and whether they use a gravel bed. One-hundred seventy communities completed surveys.

The survey results are discussed in detail in this report. The most significant findings are summarized as follows:

- Survey respondents prefer a caliper size of 1½" to 2".
- Balled and burlapped (B&B) planting stock is preferred for large-stature trees; containerized is preferred for small-stature trees.
- The table on page 2 captures key data from respondents' experience with trees from a list of 30 lesser-used species included in the survey.
  - Approximately one-third of the 30 lesser-used trees listed earned an "excellent/good" success rating above 70%, and approximately two-thirds received a success rating above 65%. These trees should be trialed throughout the state to determine viability for more propagation (see "Discussion of Key Findings" found on page 7).
  - Judging by reported demand, almost twice as many trees should be made available for purchase from the lesser-used tree species list (see Question #8 in "Questions & Results" on pages 4-5).
- About one-half of the respondents purchase bare root stock annually, and about one-third of this group uses gravel beds. Growing a more substantial root system is the most frequent reason cited for the use of gravel beds.

Photo Credit: Wisconsin DNR

SURVEY INTENT

We hope that municipalities and the nursery industry will find this data useful. By identifying which lesser-used species are in demand and are thriving in our urban forests, the results of this survey can help Wisconsin's private nurseries determine which species to grow. Nurseries can tailor their current efforts to meet a need they may not have known about.

Ultimately, if nurseries offer a larger number of underrepresented species for sale, municipal foresters and homeowners will be able to plant more diverse urban forests, increasing our forests' resilience in the face of threats such as new pests, diseases and climate change.

"Judging by reported demand, almost twice as many trees should be made available for purchase from the 'lesser-used' tree species list." *(page 1)*

Photo Credit: Wisconsin DNR

Lesser-used Tree Species	Average Number Planted Annually*	Would Buy Annually (if available)**	Success Rate: Percent Excellent/Good	Number of Communities Reporting***
Kentucky coffeetree	1,380	1,485	76	104
London planetree	913	907	65	72
Ginkgo	848	998	74	91
Northern catalpa	531	769	73	61
Turkish filbert	292	400	55	51
American hornbeam	247	504	67	55
Bauman horse chestnut	244	373	68	37
Chinkapin oak	238	425	68	43
Amur maackia	228	358	66	32
Ohio buckeye	192	444	74	46
Harvest Gold linden	153	384	73	37
Common bald cypress	146	373	74	45
Katsura tree	142	405	65	41
Amur chokecherry	115	167	73	25
American yellowwood	109	378	65	30
Japanese zelkova	106	230	66	12
Pekin lilac	98	261	72	19
Dawn redwood	93	373	60	35
Hardy rubber tree	87	203	52	11
Osage orange	70	137	65	7
European hornbeam	63	250	64	12
American sweetgum	53	244	59	14
Ware's oak	45	254	81	8
Yellow buckeye	44	181	70	17
Persian ironwood	39	180	58	14
Black gum	23	239	47	11
Accolade cherry	22	117	81	9
Prairie Stature oak	17	333	61	12
American smoketree	8	138	46	8
Forest Knight oak	4	265	50	2

* **Average Number Planted Annually:** Communities were provided with a list of 30 lesser-used species. They were asked to estimate how many of each species they had planted over the past five years. The reported number was divided by five to calculate the Average Number Planted Annually.

** **Would Buy Annually (if available):** Assuming that some communities may not have been able to find a number of the trees on this list, but would have been interested in purchasing them if they were available for sale, communities were asked how many of these trees they would purchase if they become available for sale.

*** The **number of communities** who reported planting each species (out of 170 communities total).

SURVEY DESCRIPTION

DNR Urban Forestry Coordinator Don Kissinger and DNR Social Science Analyst Robert Godfrey (with input from others) developed the 15-question, 6-page survey. It was mailed to all Wisconsin communities (cities, villages and towns) with residential populations greater than 2,500. The total number of communities receiving the survey was 291. A postage-paid return envelope was included with the survey.

Prior to the survey being sent, a pre-survey letter was mailed to the communities explaining the rationale of the survey and requesting to complete and return it shortly. Following the initial mailing of the printed survey, two more survey waves were sent to non-responders.

We received 170 returned surveys for a response rate of 58%. These 170 communities account for 3,234,000 residents or 55% of the state's total population (U.S. Census Bureau).

SURVEY QUESTIONS AND RESULTS

** See "Appendix B" for a slightly condensed copy of the survey.*

Questions #1 to #4

The first four survey questions captured basic information about the respondents, such as their name, contact information and community size. The population of the responding communities breaks down as follows:

- **Small (2,500-5,000 Residents):** 59 communities
- **Medium (5,001-10,000 Residents):** 41 communities
- **Large (10,001-50,000 Residents):** 59 communities
- **Metro (> 50,001 Residents):** 11 communities

To get a sense of the communities' tree planting expertise, we asked whether they have an annual tree planting program. Seventy-four percent (125 respondents) stated that they do have an annual tree planting program.

Question #5

Question #5 covered preferred caliper size (diameter of tree trunk measured 6″ above the root flare). The choices covered seven categories in ¼″ increments from < 1¼″ to > 2½″.

The top preference was 1¾″ to 2″, followed closely by 1½″ to 1¾″. The third most popular choice was 2″ to 2¼″. The least desirable option was > 2½″.

Questions #6 to #7

Questions #6 and #7 inquired about planting stock preferences: balled and burlapped (B&B), containerized and bare root. Question #6 covered large-stature trees such as oak and hackberry, and Question #7 applied to small or ornamental trees such as crabapple, hawthorn and serviceberry. A rating of 1 is the highest, and 3 is the lowest.

For large-stature trees, B&B was the clear planting stock choice (1.64). Containerized (2.11) and bare root (2.25) were very close to each other in preference, with containerized having a slight edge. For small-stature trees, containerized stock was most preferred (1.87) followed closely by B&B (1.94). Bare root was the lowest reported choice (2.19). The preference range in the large-stature tree category between most to least preferred was significantly larger (.61) than the small-stature category (.32).


Photo Credit: Wisconsin DNR

Photo Credit: Wisconsin DNR

QUESTIONS & RESULTS

Question #8

Question #8 was a central query for the survey. We asked the community forestry managers to review a list of 30 lesser-used trees. The following trees were on the list: American hornbeam, European hornbeam, American sweetgum, American yellowwood, Amur chokecherry, Accolade cherry, Amur maackia, London planetree, black gum, chinkapin oak, Ware's oak, Prairie Stature oak, Forest Knight oak, common bald cypress, American smoketree, dawn redwood, ginkgo, hardy rubber tree, Japanese zelkova, katsura tree, Kentucky coffeetree, Pekin lilac, Ohio buckeye, yellow buckeye, Bauman horse chestnut, Osage orange, northern catalpa, Persian ironwood, Harvest Gold linden, and Turkish filbert.

There were three parts to Question #8. We asked respondents to tell us 1) the approximate number of these trees they had planted in the last five years and 2) their success rates (excellent/good, fair, poor/dead).

In the third part of the question, we asked how many of these species they would purchase and plant annually if they were available to purchase. We asked this question to see if that number would be demonstrably higher than the annually planted numbers in the previous five years. Essentially, we hoped to better understand if there was a desire or need to propagate more of these specific tree species.

This was a tough and somewhat unfair question in some regards, in that certain trees (such as Kentucky coffeetree, ginkgo, and northern catalpa) can grow fairly well almost anywhere in the state, while others (such as common bald cypress, hardy rubber tree, Osage orange, and black gum) are currently more well-suited to the southern half of Wisconsin, if that.

The results indicate that a relatively large number of these species have been planted and are successfully growing across the state. Kentucky coffeetree was the most planted tree on the list (6,904 trees) and had a strong "excellent/good" rate of 76% over the last five years. The next two highest planted trees, London planetree (4,564) and ginkgo (4,240) had "excellent/good" rates of 65% and 74% respectively. The average "excellent/good" rating for the ten most frequently planted species on this list is 69%.

The trees with the highest "excellent/good" ratings are Ware's oak (223 trees planted) and Accolade cherry (111) at 81%. The trees with the lowest "excellent/good" ratings are black gum (114) at 47% and Forest Knight oak (20) at 50%. Note that the quantity of these trees is much lower than the most frequently planted trees.

Please see the table on page 2 and "Appendix A" to view the results for all 30 trees. It should be mentioned that even within this listing of 30 lesser-used tree species, the diversity of trees is quite low, as the top 10 tree species captured 78% of all trees planted. Except for the top six trees, relatively few communities planted each of the remaining 24 trees. For example, Bauman horse chestnut, the tree with the seventh highest planting numbers, was planted by only 37 out of 170 communities (22%).

The results also indicate that there is a substantial shortage of these species. We calculated that of the 125 communities that had an annual tree planting program, on average 262 trees over a five-year period or 52 trees per year for each community came from this list of 30 lesser-used trees. These communities reported that they would plant on average 94 trees from this list next year if they are available. This suggests that perhaps almost twice as many trees as have been planted up to now would be planted if available, making for a more diverse tree population and the potential for increased profit for nurseries.

"There is only one species (London planetree) that is currently available at the numbers community forestry managers would like to plant." *(page 5)*

Photo Credit: Wisconsin DNR

QUESTIONS & RESULTS

The list below covers the top ten species that community forestry managers would plant next year if available ("Desire Annual"), compared to the average number of trees currently planted annually ("Current Annual"). You will notice in comparing the two sets of numbers that there is only one species (London planetree) that is currently available at the numbers community forestry managers would like to plant.

Quantities of the Top 10 Species

Tree Species	Desired Annual	Current Annual
1. Kentucky coffeetree	1,485	1,381
2. Ginkgo	998	848
3. London planetree	907	913
4. Northern catalpa	769	531
5. American hornbeam	504	247
6. Ohio buckeye	444	192
7. Chinkapin oak	425	238
8. Katsura tree	405	142
9. Turkish filbert	400	292
10. Harvest Gold linden	384	153

In addition, there is some geographical variation within these numbers. "Appendix A" contains graphs for the 30 surveyed trees broken down in two ways: by the DNR's six urban forestry regions in Wisconsin, and by cold hardiness zones. The 30 surveyed trees are organized by "deficit" — that is, how many more trees are annually desired than what people are purchasing now. It goes from largest deficit on top to smallest deficit on the bottom.

Question #9

Question #9 has two parts: 1) what other lesser-used tree species have you planted in your community over the past five years that are not listed above, (the list of 30) and 2) what was your percentage of success (excellent/good, fair, poor/dead)?

This question was completely open-ended, and as a result, we received an enormous number of responses — 200 different species/cultivars in total! Respondents clearly have very different ideas of what qualifies as a lesser-used tree. For example, maples are the most heavily planted urban tree genera in Wisconsin, and yet 29 different species and cultivars of maples were listed as answers to this question.

The top 10 trees named by respondents, and the number of each planted annually on average over the last five years, can be found below. Keep in mind that not all respondents would classify these species as lesser-used, so the actual planting numbers are likely higher in some cases. For instance, let's imagine that Community A and Community B both planted 20 Skyline honeylocusts. Community A knows that honeylocusts are a heavily planted species and does not report these 20 trees on the survey. Community B considers Skyline honeylocust to be lesser-used and reports their 20 trees. So, in this instance, 20 Skyline honeylocusts were reported by Communities A and B, but 40 were actually planted.

Lesser-used Trees Not Listed But Planted Annually Over a 5-year Period

Tree Species	Planted Over A 5-Year Period	Number of Communities Planting Trees
1. Tulip tree	179	23
2. Hackberry	176	27
3. Swamp white oak	174	18
4. Regal Prince oak	93	11
5. Ironwood	88	10
6. Skyline honeylocust	76	13
7. Japanese ivory silk lilac	73	11
8. Patriot elm	72	2
9. Redmond linden	56	9
10. Eastern redbud	55	12

QUESTIONS & RESULTS

Top 10 Unavailable Tree Species

Tree Species	Number You Would Purchase Annually	Number of Communities That Would Buy
1. Hackberry	173	19
2. Swamp white oak	106	11
3. Ironwood	106	11
4. Bur oak	53	10
5. Regal Prince oak	117	9
6. Eastern redbud	78	8
7. Japanese ivory silk lilac	45	6
8. Skyline honeylocust	39	6
9. State Street Miyabei maple	37	6
10. Shagbark hickory	33	6

Question #10

Question #10 asked, "What other lesser-used tree species **not listed** (in the survey) have you been **unable to purchase**, but would like to and how many would you purchase annually of each?" The respondents listed 162 species and cultivars. Above is a list of the top ten species sought after, prioritized by the corresponding number of communities that are looking for these particular trees and the number of total trees those communities would purchase annually.

Photo Credit: Wisconsin DNR

Questions #11 to #15

The last section of the survey, Questions #11 to #15, dealt with the use of bare root trees and gravel beds. A growing number of communities appear to be using this method.

Eighty-three respondents (49% of the communities) purchase bare root trees. Of these 83 communities, 26 (31%) use gravel beds, which is 15% of all 170 communities that responded to the survey.

The 26 respondents who use gravel beds were also asked why they use this system. The most popular answer (given by 24 respondents [92%]) is "to create larger, more substantial root structure." Fourteen respondents (54%) are waiting for site preparation to be completed (such as street or development completion). Seven of the communities (27%) needed to complete dead tree removal first, and five communities (19%) use this method to facilitate the sale or giving away of trees to their residents. An open ended "Other, please explain" question was also included. All responses are listed below:

- Easier to plant/cheaper.
- Waiting for appropriate planting weather.
- Lower cost, reduce spring planting numbers and move to fall.
- Easy to handle/plant.
- Don't have time to plant immediately.
- Grant projects, purchased trees earlier in the year when available and held in gravel bed until ready for planting.
- Expanded availability.
- Time constraints with watering.
- Shipping workload from spring to fall.
- Easy planting at time with less other things going on.
- Waiting for staff availability to plant.
- Control availability of stock replacements.
- Cost savings.
- Cost-effective — buying and planting.
- Easier to plant, cheaper. We plant almost entirely bare root trees. This limits our selection.
- Our bare root gravel bed is in development, plan to get first trees in spring of 2021.

DISCUSSION OF KEY FINDINGS

KEY FINDING #1

Approximately one-third of the 30 lesser-used trees listed earned an "excellent/good" success rating above 70%. These trees are solid performers that should be a relatively safe bet for most communities. The following species received a rating above 70%:

- Kentucky coffeetree
- Gingko
- Northern catalpa
- Ohio buckeye
- Harvest Gold linden
- Common bald cypress
- Amur chokecherry
- Pekin lilac
- Ware's oak*
- Accolade cherry*

KEY FINDING #2

Two-thirds of the trees received a success rating above 65%. Trees with a rating between 65%-69% should be trialed throughout the state to determine viability for more propagation. The following species received a rating between 65%-70%:

- London planetree
- American hornbeam
- Bauman horse chestnut
- Chinkapin oak
- Amur maackia
- Katsura tree
- American yellowwood
- Japanese zelkova
- Osage orange*
- Yellow buckeye*

** Indicates small sample size*

KEY FINDING #3

Keep in mind that performance ratings may be affected by cold hardiness zones. A tree that can grow successfully in southeast Wisconsin may have much higher mortality in the north. Some of the 30 trees that performed the most poorly are the least cold hardy, and it is possible that the low success ratings could be due to planting trees in a colder zone than they can tolerate. Based on the aggregated data, we do not know if a lack of cold hardiness is the cause of low success ratings, but it may be possible to determine whether this is true by examining the raw data.

KEY FINDING #4

None of these trees are regulated by NR40 (Wisconsin's invasive species rule). The DNR's Species Assessment Groups maintain an unofficial watch list for consideration for NR40. The only one of these 30 trees on the list is Pekin lilac. Its current status is "do not assess."

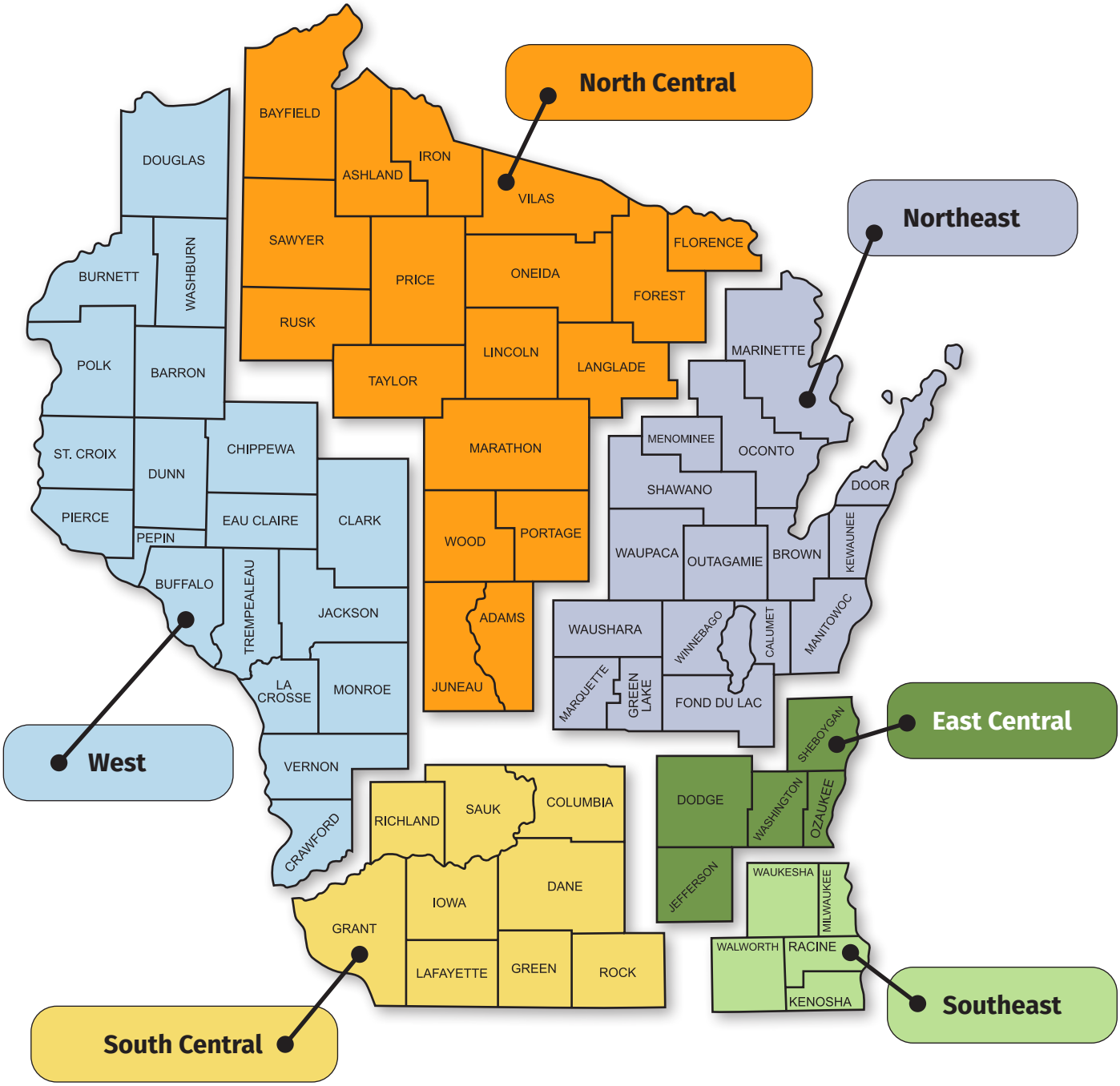
Photo Credit: Wisconsin DNR

APPENDIX A: GRAPHS

The graphs in "Appendix A" compare the average number of the 30 lesser-used species that were planted annually with the number that respondents would purchase annually if made available for sale. There are 11 graphs in total; there is one graph for each of the DNR six urban forestry regions, and one graph for each of four cold hardiness zones.

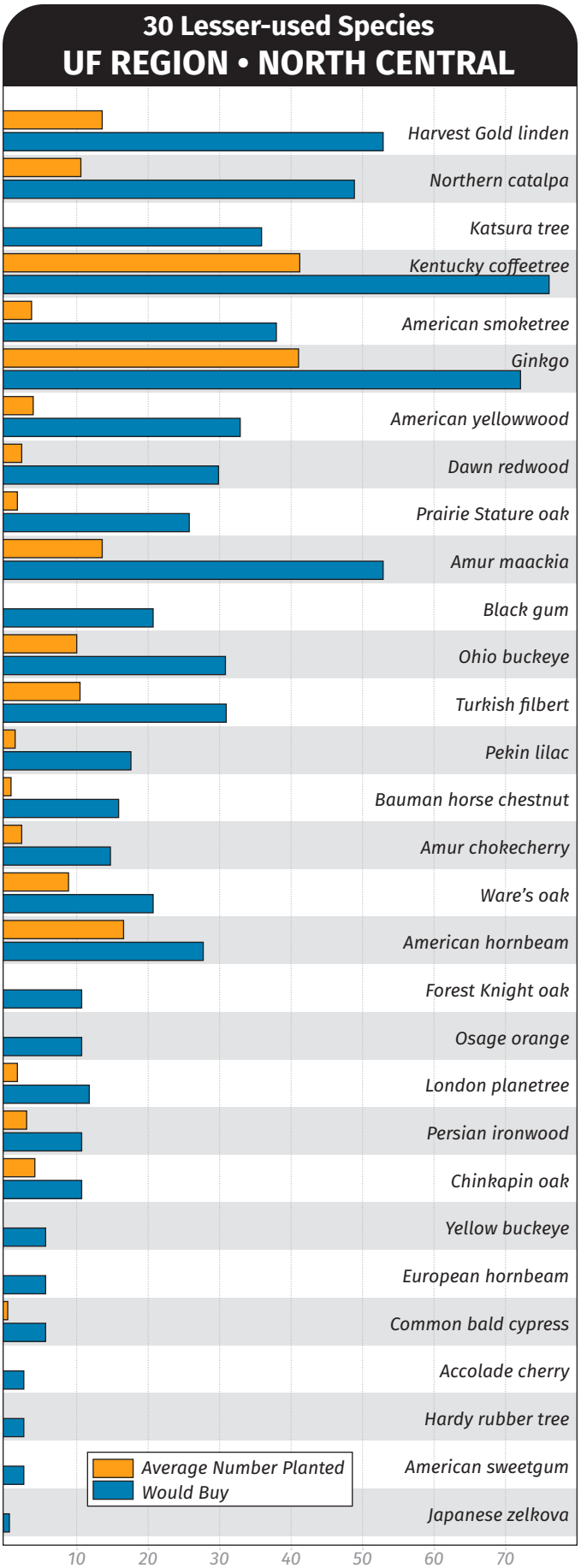
The 30 surveyed trees are organized by "deficit" — that is, how many more trees are annually desired than what people are purchasing now. Each graph is arranged from largest deficit on top to smallest deficit on the bottom.

WISCONSIN DNR URBAN AND COMMUNITY FORESTRY REGIONS



For more information, visit ***dnr.wi.gov*** *•* ***search "urban forests"***

APPENDIX A: GRAPHS



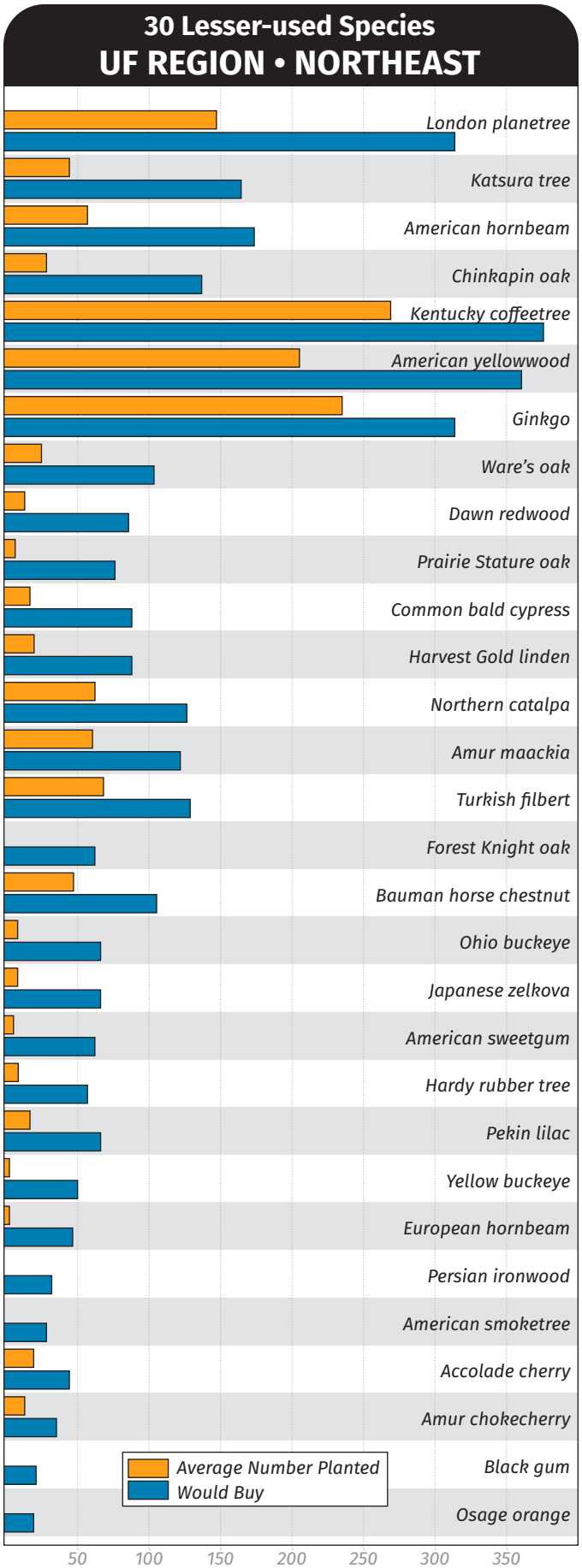
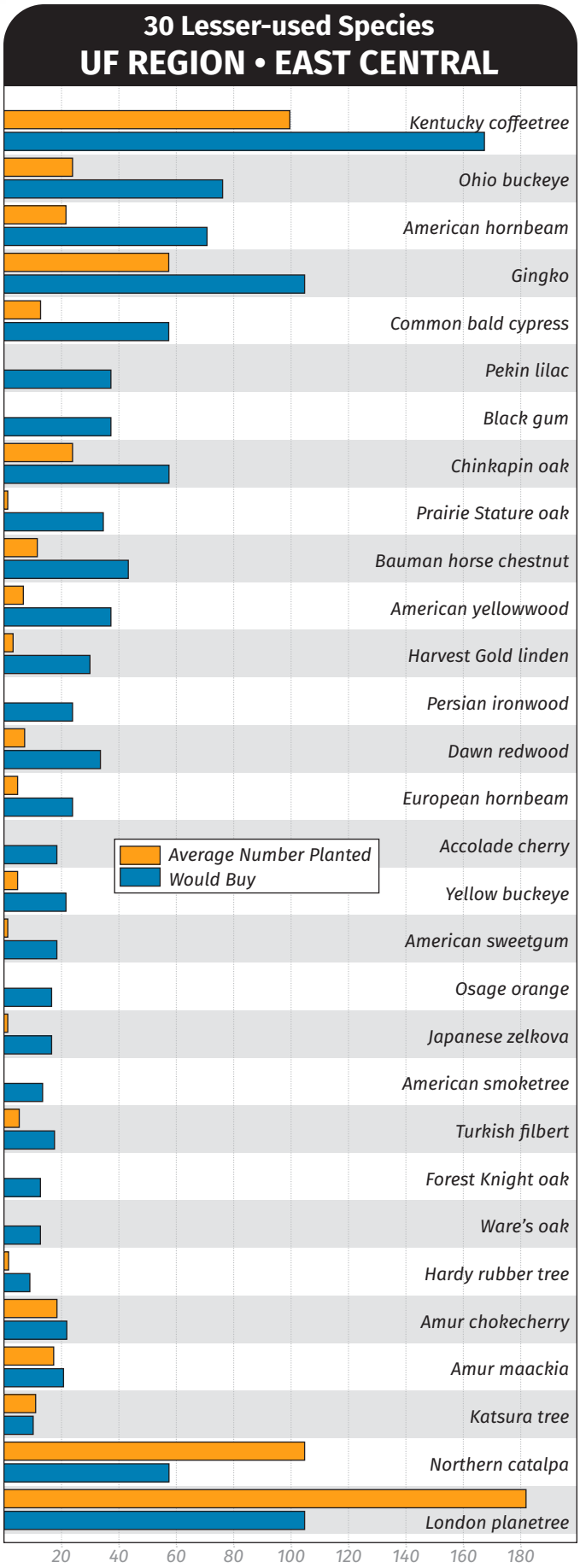
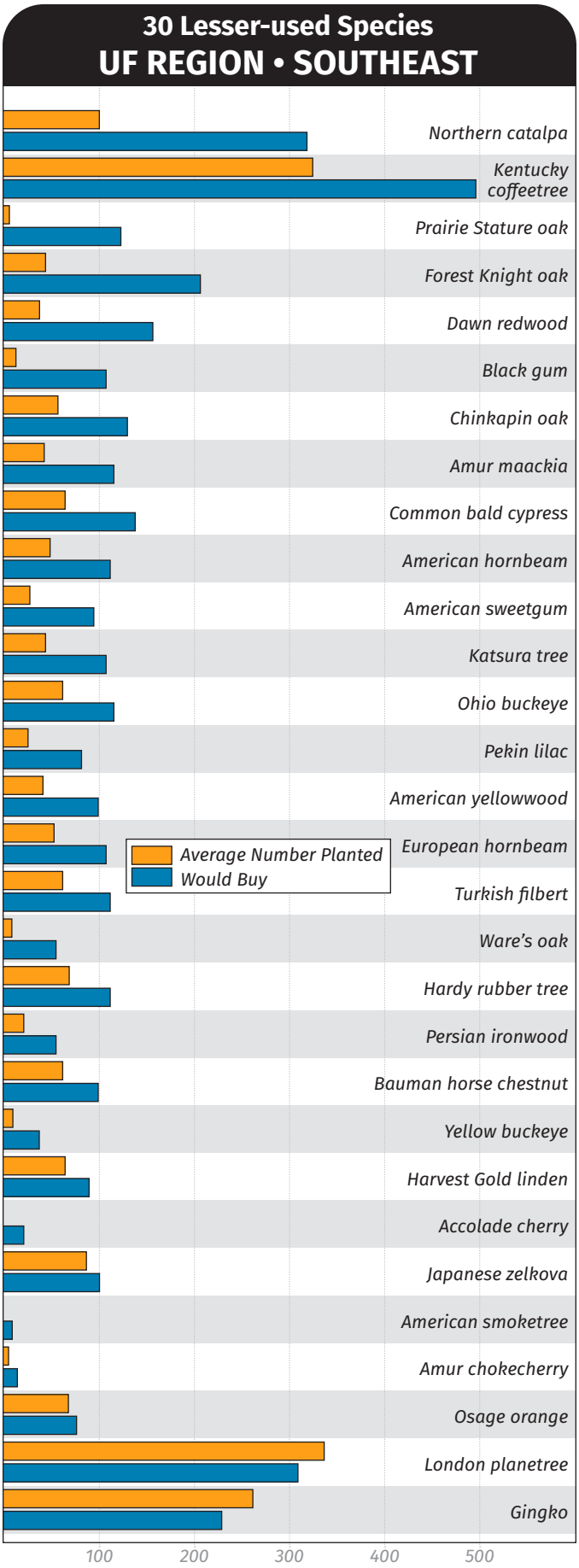


Photo Credit: Wisconsin DNR

APPENDIX A: GRAPHS





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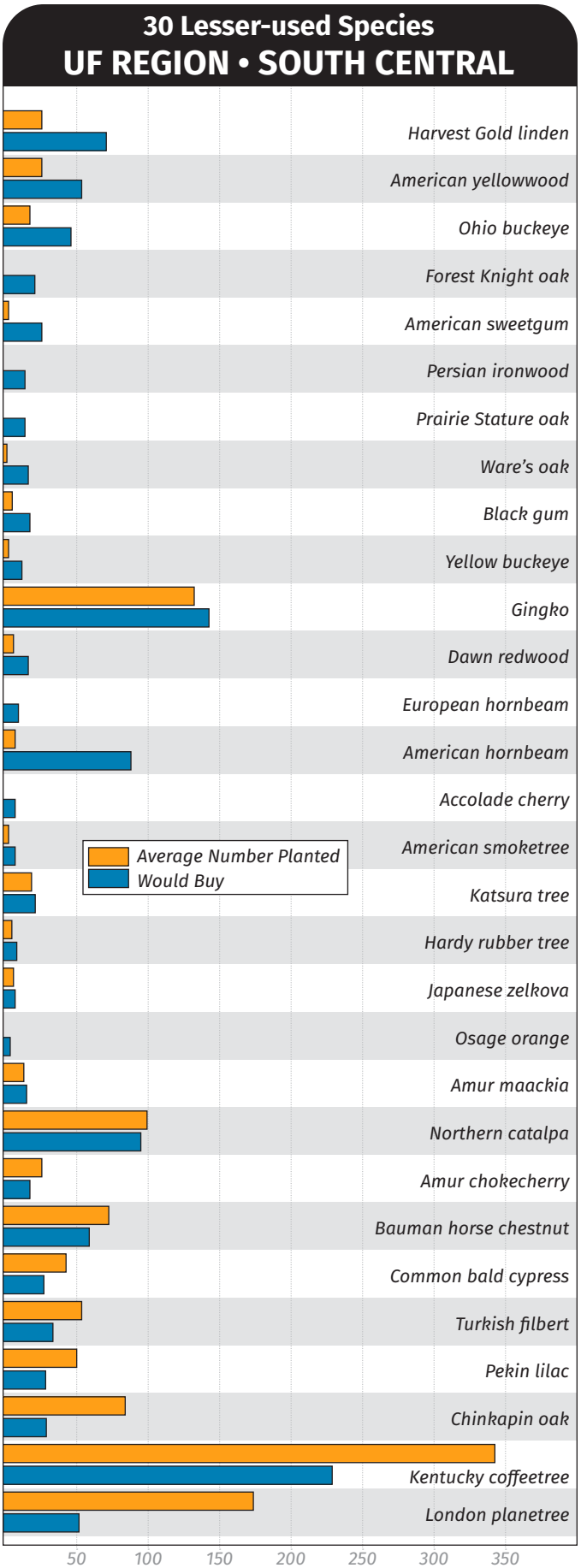


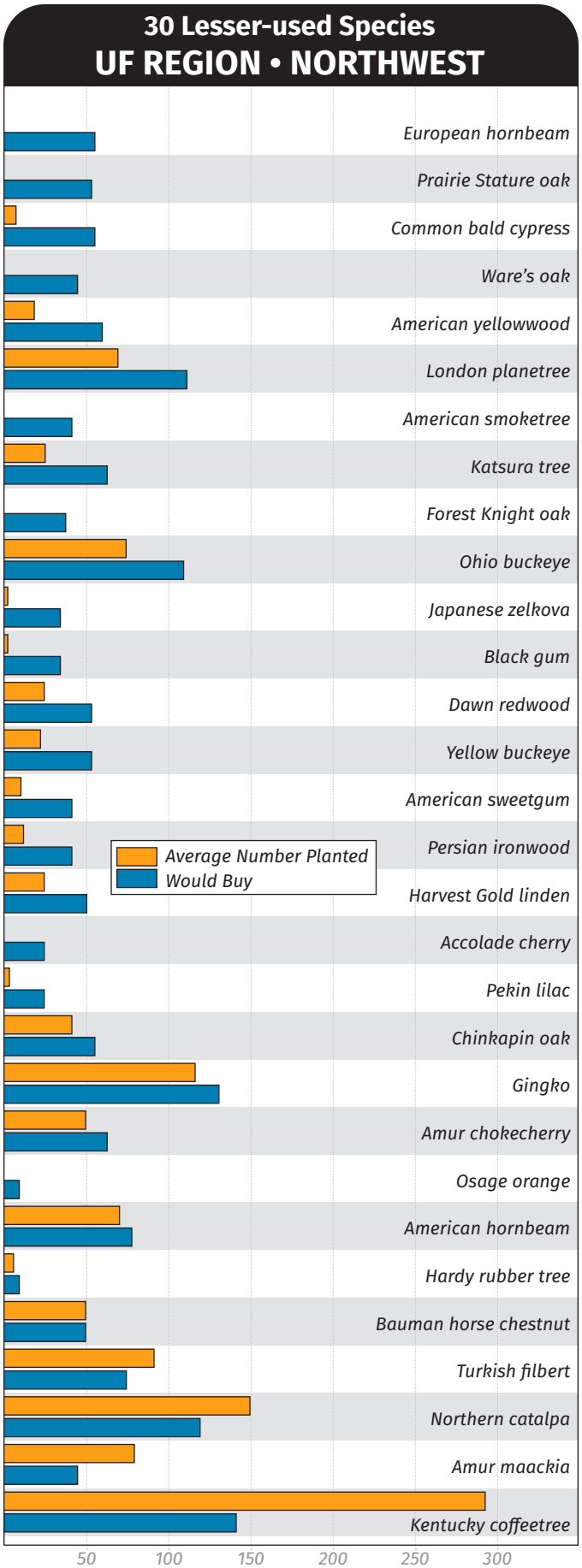
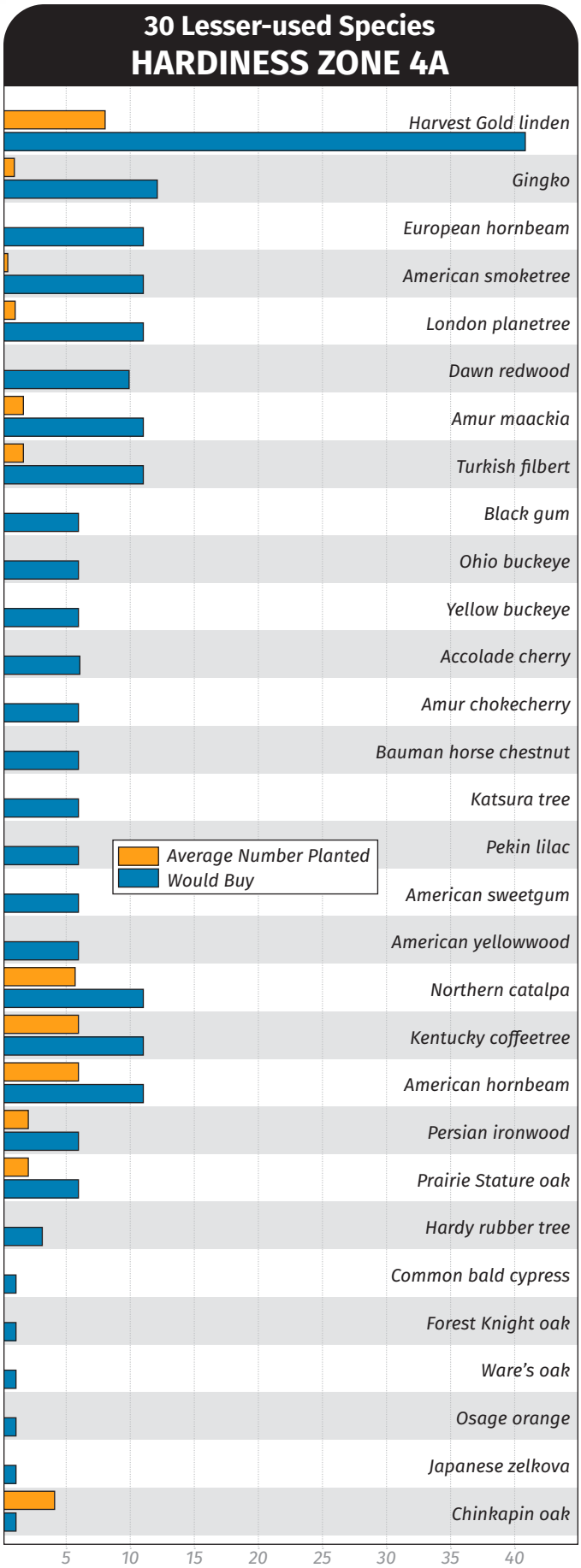
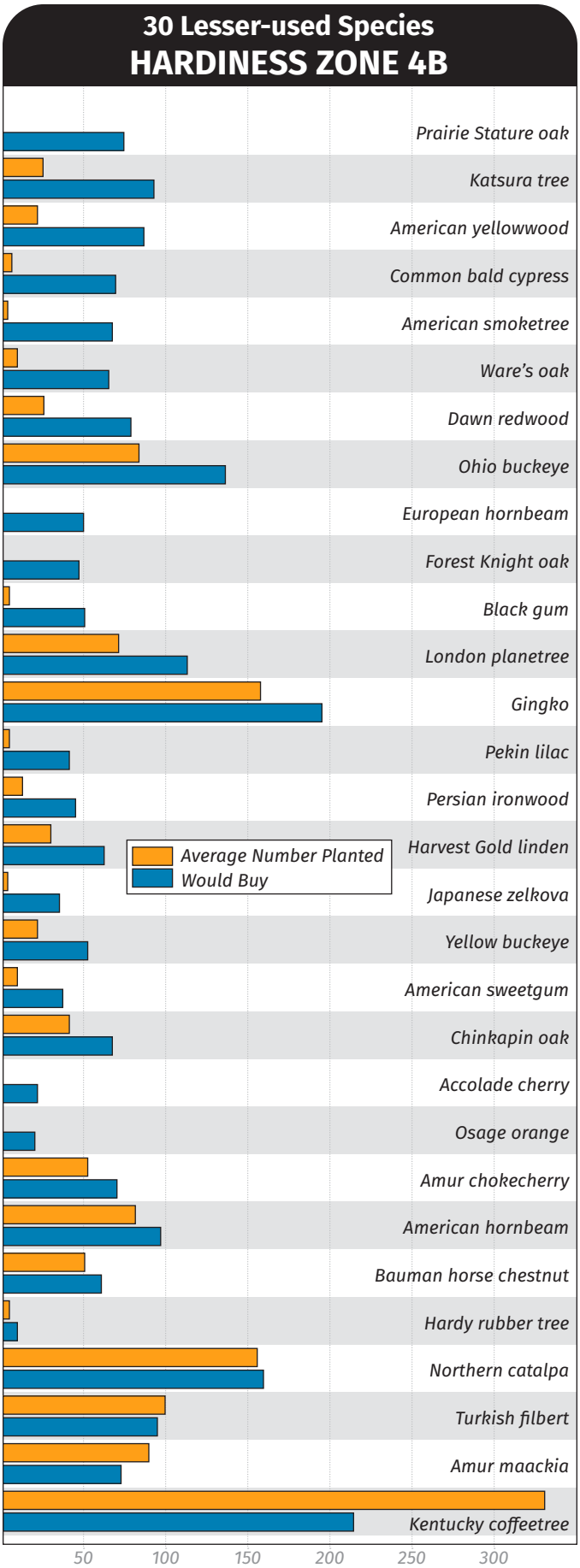


Photo Credit: Wisconsin DNR

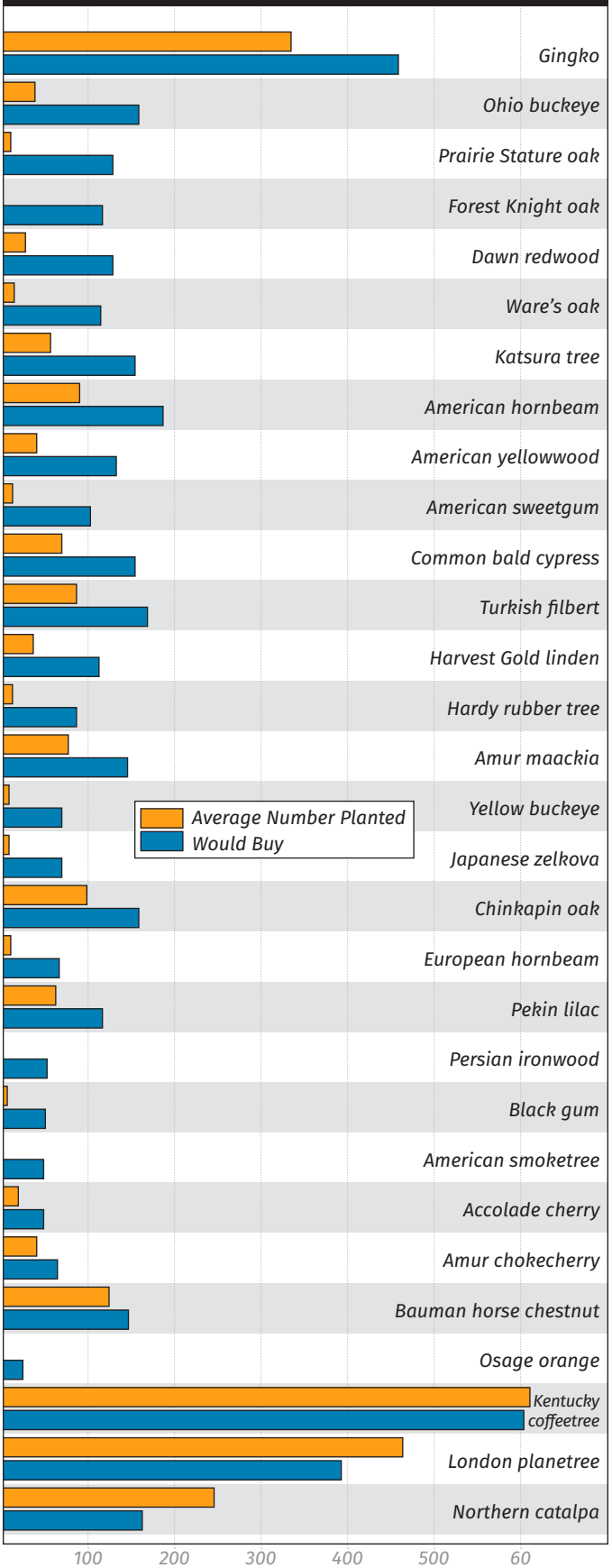
APPENDIX A: GRAPHS





APPENDIX A: GRAPHS

30 Lesser-used Species
HARDINESS ZONE 5A



30 Lesser-used Species
HARDINESS ZONE 5B

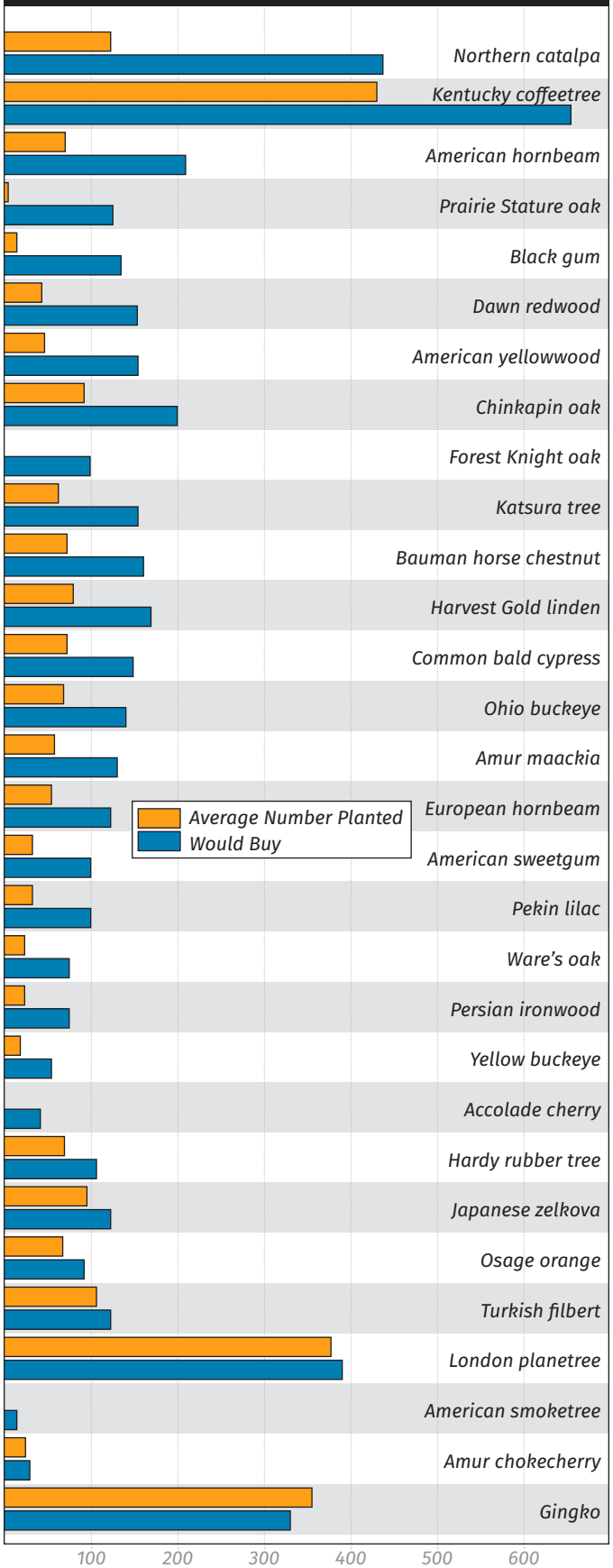


Photo Credit: Wisconsin DNR

APPENDIX B: SURVEY QUESTIONS

1) Community Name _____

2) Your Contact Information:

   Name _____

   Title/Position _____

   Name of Department _____

   Phone Number _____

   Address _____

   Email Address _____

3) What is the approximate population of your community? _____

4) Do you have an annual tree planting program? _____ Yes _____ No

• • • If you answered "no "above, please continue to fill out the survey the best you can. • • •

5) What caliper size of deciduous trees do you prefer to purchase and plant? Please rank below each size from **1 to 7** in order of preference, using ONLY ONE number for each. "1" being your <u>most</u> preferred choice, "7" being your <u>least</u> preferred choice.

_____ < 1¼" _____ 1¼"-1½" _____ 1½"-1¾"

_____ 1¾"-2" _____ 2"-2¼" _____ 2¼"-2½"

_____ > 2½"

6) On a scale of **1 to 3**, with "1" being your <u>most</u> preferred and "3" being your <u>least</u> preferred, please rank your planting stock preference for **large-stature trees** such as oak and hackberry?

_____ Bare root _____ Containerized _____ Balled & Burlap

7) On a scale of **1 to 3**, with "1" being your <u>most</u> preferred and "3" being your <u>least</u> preferred, please rank your planting stock preference for **small-stature trees** such as crabapple and hawthorn?

_____ Bare root _____ Containerized _____ Balled & Burlap

APPENDIX B: SURVEY QUESTIONS

8) A set of **lesser-used** tree species are listed below. For each one there are three questions to answer.

1. Please consider each species and estimate the total number of that species that have been planted in your municipality over the past five years in column 2. If you have NOT purchased that species, please enter a "0."

2. In the second set of columns (3-5), tell us, using the three categories below, the percentage of success you have attained with each species that you have planted. If you have not planted that species, please leave these columns blank.
   - **Excellent/Good:** None to minor visible defects, full canopy, and wounds present are callousing. Expected to thrive for many years.
   - **Fair:** Minor to moderate defects, may have a thinning crown, and lack characteristic symmetry of the species, growth is less than expected, but should be productive for several years.
   - **Poor/Dead:** Exhibiting low vigor, evidenced by branch dieback, abnormal leaf size to standing tree with no live limbs.
   - The **total percentage amount** of success with each of these species should come to **100%**.

3. In the last column (6), report how many of each species you would purchase annually **if they were available** (even if you have not purchased them in the past).
   - **IMPORTANT:** Again, some of these species may NEVER have been planted by your community. However, if you believe you or your community MIGHT purchase that species in the future, **if they were available**, please note the amount that you MIGHT purchase in the last column as well.

Tree Species	Total Number of Trees Planted Over the Past 5 Years	% Success (Total Should = 100%)			Number You Would Purchase Annually *(if available)*
		Excellent/ Good	*Fair*	*Poor/Dead*	
American hornbeam (*Carpinus caroliniana*)					
European hornbeam (*Carpinus betulus*)					
American sweetgum (*Liquidambar styraciflua*)					
American yellowwood (*Cladrastis kentukea*)					
Amur chokecherry (*Prunus maackii*)					
Accolade cherry (*Prunus 'Accolade'*)					

Photo Credit: Wisconsin DNR

APPENDIX B: SURVEY QUESTIONS

Tree Species	Total Number of Trees Planted Over the Past 5 Years	% Success (Total Should = 100%)			Number You Would Purchase Annually *(if available)*
		Excellent/ Good	*Fair*	*Poor/Dead*	
Amur maackia (*Maackia amurensis*)					
London planetree (*Platanus x acerifolia*)					
Black gum (*Nyssa sylvatica*)					
Chinkapin oak (*Quercus muehlenbergii*)					
Ware's oak (*Quercus x warei*)					
Prairie Stature oak (*Quercus x bimundorum 'Midwest'*)					
Forest Knight oak (*Quercus x bimundorum 'Tabor'*)					
Common bald cypress (*Taxodium distichum*)					
American smoketree (*Cotinus obovatus*)					
Dawn redwood (*Metasequoia glyptostroboides*)					
Ginkgo (*Ginkgo biloba*)					
Hardy rubber tree (*Eucommia ulmoides*)					
Japanese zelkova (*Zelkova serrata*)					
Katsura tree (*Cercidiphyllum japonicum*)					
Kentucky coffeetree (*Gymnocladus dioicus*)					
Pekin lilac (*Syringa pekinensis*)					

APPENDIX B: SURVEY QUESTIONS

Tree Species	Total Number of Trees Planted Over the Past 5 Years	% Success (Total Should = 100%)			Number You Would Purchase Annually *(if available)*
		Excellent/ Good	*Fair*	*Poor/Dead*	
Ohio buckeye (*Aesculus glabra*)					
Yellow buckeye (*Aesculus octandra*)					
Bauman horse chestnut (*Aesculus hippocastanum 'Baumannii'*)					
Osage orange (*Maclura pomifera)*					
Northern catalpa (*Catalpa speciosa)*					
Persian ironwood (*Parrotia persica)*					
Harvest Gold linden (*Tilia 'Harvest Gold')*					
Turkish filbert (*Corylus colurna)*					

9) What other **lesser-used** tree species have you planted in your municipality **over the past five years** that are NOT listed above? Please list the total number of trees planted, percentage of success with each species planted, totaling 100%. If these species continue to be available, please report how many of those you intend to keep purchasing annually. Answer on the following page.

Tree Species	Total Number of Trees Planted Over the Past 5 Years	% Success (Total Should = 100%)			Number You Would Purchase Annually *(if available)*
		Excellent/ Good	*Fair*	*Poor/Dead*	

APPENDIX B: SURVEY QUESTIONS

10) Are there other **lesser-used** tree species NOT listed that you have been **unable to purchase**? If so, please list those, along with the numbers of them you would purchase annually.

Tree Species	Number of Trees Would Be Purchased Annually

11) Some Community Forestry Managers purchase **bare root trees** to hold in a gravel bed to eventually plant later during the growing season. Do you ever purchase bare root stock?

_____ Yes _____ NO → If no, please go to the END of the survey

12) Do you hold your bare root stock in a gravel bed?

_____ Yes _____ NO → If no, please go to the END of the survey

13) If you use gravel beds, what are your reasons for holding your trees there? Pick as many that apply.

_____ To create larger, more substantial root structure.

_____ To sell or give away to residents.

_____ Waiting for site preparation to be completed, e.g., street/development completion.

_____ Must remove dead trees first.

_____ Other, please explain. _____

14) If you use gravel beds, how many trees do you purchase and hold annually? _____

15) If you use gravel beds, how long do you typically hold those trees? Please check only one.

_____ 1 month _____ 2 months _____ > 3 months

Photo Credit: Wisconsin DNR

"Keep in mind that performance ratings may be affected by cold hardiness zones. A tree that can grow successfully in southeast Wisconsin may have much higher mortality in the north." (page 7)

Photo Credit: Wisconsin DNR

Photo Credit: Wisconsin DNR

Photo Credit: Wisconsin DNR

Photo Credit: Wisconsin DNR

Photo Credit: Wisconsin DNR

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By Don Kissinger, DNR Urban Forestry Coordinator

I would be remiss if I did not acknowledge the large amount of time and effort put forth by DNR Social Science Analyst **Robert Godfrey** assisting me in development of the survey as well as mailing and receiving the survey and crunching the numbers. Along with reviewing data from the **Village of Cambridge's** trialing over the years and speaking with community foresters, I also tapped the expertise of Professor **Laura Jull** from the UW-Madison Horticulture Department in the task of coming up with the list of 30 lesser-used tree species for the survey. It was challenging to determine a manageable amount and diverse selection of trees that the community forestry managers would be aware of, and have planted or would like to plant. I also bounced many of these questions off Professor **Rich Hauer** from UW-Stevens Point, who provided feedback.

My hope is that the Wisconsin private nursery industry will make a solid attempt to provide a more diverse palette of trees and that the communities would do their part in expanding the species list they use and plant. Additionally, I hope that the Wisconsin Urban Forestry Council's Species Diversity Issue Group will use this information as a primer and engage the Wisconsin private nursery industry to that end.

Additional data can be made available by contacting Dan Buckler at ***daniel.buckler@wisconsin.gov***.

Photo Credit: Wisconsin DNR

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