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Keeping green in the trees

Local woman working to find source of oak deaths

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HURON COUNTY — Like many people, Tracy Powell took trees for granted. She assumed the beautiful oaks, maples and other majestic trees would always be around and that nothing could take them away — well, nothing other than a chain saw.

Today, Powell, the creator of Project Green Tree, knows better. She is working tirelessly to educate others on why they, too, shouldn't take trees for granted.

Powell and her husband, Jeff, own JP's Tree Service, a business that's been going since 2003. Through this business, Powell became educated on tree care and the importance of it. She noticed how trees are a lot like humans, and if they're not properly taken care of, they can meet the same demise as humans can.

Also through the business, Powell started noticing the decline of white and red oak trees in the Sand Point area. The trees required removal, one after the other.

This alarmed Powell. She also was witnessing the loss of ash trees due to the Emerald Ash Borer, but she wasn't sure what was happening to the oak trees.

She needed to find out. She was afraid of what would happen if the problem remained unchecked.

Planting the seeds of a project

In 2005, she learned that local oak trees suffered from oak anthracnose (a common leaf spot disease caused by fungus), varying degrees of chlorosis (discoloration of

foliage caused by iron, zinc or manganese deficiency), leaf scorch (browning and wilting of leaves) and Armillaria (a root disease caused by fungi). However, Powell figured these issues were not the cause of the serious, widespread problem.

Over time, Powell noticed oak trees all along the west side of the county that were in trouble. The mysterious problem sometimes took out an entire yard of trees. In other areas, there were affected trees standing right next to healthy trees. She wondered why one tree could be affected and not the one standing next to it.

She knew one thing for sure. This was no small issue. The problem was branching out beyond 30 miles.

If the source of the problem is unknown, then the proper treatment cannot be found, she said. Finding an effective treatment is crucial for saving the oak tree population from more decline.

Until the proper treatment is found, any other short-term treatments for the oak tree symptoms "is like putting a Band-Aid on cancer," Powell said.

In 2009, Powell started her own efforts to try to discern what was killing so many oak trees. She contacted many local, county and state organizations and agencies for assistance, but none could provide help, she said.

"The decision to take action myself has led me on a journey further than I would have ever expected," she said.

Searching for roots of the problems

Powell said beyond leaf scorch, she was noticing twig cankers (similar to canker sores on a human), and

bleeds, which is when sap leaks from the trees. She took more than 100 samples of leaves, twigs, trunks, roots, soil and water until the weather became unfavorable. She sent some samples to Michigan State University, but she sent most of them to the University of Minnesota for diagnostic analysis. Cornell University and Rutgers Plant Diagnostic Lab in New Jersey also assisted with sample analysis.

But the findings were inconclusive as to a primary cause linked to the problems. Several samples tested positive for Phytophthora, a serious, widespread and difficult to control fungus disease affecting roots. Loss of water, nutrient-absorbing capacity and stored carbohydrate reserves in the root cause a gradual, or sometimes rapid, decline of the affected tree, according to Bartlett Tree Research Laboratories in Charlotte, N.C.

However, there are several species of this problem, and the specific species is unknown, Powell said. Her goal is to find out what species of Phytophthora is attacking the oak trees in the area.

“The species *P. Ramorum*, discovered in California during 1995, is the cause of the Sudden Oak Death,” she said.

Powell said the lab results show the symptoms observed above ground are likely related to an unknown ground source. Air pollution and herbicide injury have been ruled out as a cause of the oak tree issues. The soil samples showed a high pH level, but it’s not for certain if this has anything to do with the oak tree problems, she said.

Since last year, Powell has spent hundreds of hours and thousands of dollars observing, collecting samples, diagnostic testing, researching the Internet and books, attending seminars in Michigan and out of state, compiling data and performing presentations.

Reaching out for help Along with her dedication to research, Powell has been seeking some financial assistance to help pay for the lab work.

“Nearly 600 letters were sent requesting funding assistance,” Powell said, noting the work she’s doing is anything but inexpensive. “To this day, only \$20 has been obtained.”

She said many people have offered verbal support, which she appreciates, but it’s not enough to pay for more sampling and testing.

Powell said the declining oak trees should be a concern for anyone living in the area, because these trees are the ones to fall on buildings and vehicles, and possibly people. In addition, new tree growth will be hampered. Eventually, the Huron County landscape will be greatly affected, as there will be far fewer trees than there are today, Powell noted. She said one of the most beautiful aspects of the area is its trees, so losing them would be very detrimental.

Finally, in March, Powell received some encouragement. She went to Minnesota to attend a seminar and met with the laboratory director of the University of Minnesota. She also received some encouraging, validating news — the U.S. Department of Agriculture (USDA) Forest Service/Forest Health agreed there are problems with the oak trees in Huron County, and a representative offered to come out and do an investigation.

The researcher is coming in August, Powell said, and she’s hoping the visit will result in some definite answers.

However, she needs to do more diagnostic work before the researcher comes, but she’s not able to self fund this work for much longer. Her resources are running out quickly.

She said she doesn’t want to stop her work after pouring her heart and soul into her project for so many months, especially because she knows what is at stake. But without proper funding, she isn’t sure what more she can do.

“Identifying the cause of symptoms is crucial to developing an appropriate action plan,” she said. “If the process to identify the source or sources is delayed any further, the continued decline will intensify an already (serious) situation.”

Powell said there have been many efforts started to clean the Great Lakes, and there is testing of local beaches for bacteria during the summer. She said these

environmental efforts should be expanded to the trees, because water and tree health go hand in hand.

She said ironically, agencies dealing with massive tree concerns are located in higher- populated areas to service more people, but there are services lacking in areas where there are more trees than people.

Spreading knowledge about tree care

Powell said in addition to finding the source of the oak tree health issues and the proper treatment, an important goal of Project Green Tree is education and community awareness about the importance of tree health care.

“The ultimate goal ... is to teach community members to self-educate,” she said. “If ordinary citizens are educated on proper maintenance, signs and symptoms of possible problems, they will have the tools necessary to monitor and maintain their own landscape and surrounding areas. I believe many of the predicted, devastating losses can be controlled ... Everyone must take their part in protecting the environment.”

She said she encourages people to look at the trees in their yard and in their neighborhood. If they see something that raises a question, all they need to do is turn on their computer and search the Internet for answers. She said this simple step can go far in raising awareness about proper tree care and preventing future tree deaths.

To help educate the community, Powell has created displays about oak trees, proper tree care and the associated health issues at the Huron County Nature Center and Northstar Bank. She also had a display at Embracing Our Earth at Bad Axe High School.

For Earth Day, Powell wrote an article called “An Acorn in a Forest” and had it posted on a blog at <http://earthday.net/blog>.

Powell said she also is offering to be a resource for communities to develop their own tree health care programs, and she plans to provide services to help support effective tree care, such as performing site assessments.

While Project Green Tree is more of a sapling at this stage, Powell is working hard to plant a firm foundation so her project eventually will branch out and become a fullgrown enterprise that helps people become better tree caretakers. This will create a better environment for all, she said.

Speaking of the environment, Powell said there is a lot of talk about “green” energy and preserving natural resources, but there’s not much talk about a key ingredient to a thriving environment — trees.

“We are attempting to build a greener world, but will it be amongst dead, brown trees?” she said.

Those who would like to support Project Green Tree can contact Tracy Powell at projectgreentree@gmail.com . People also can visit www.jpstree.com for information.

Here is a list of other websites that include information on proper tree care and other information.

www.arboday.org

www.treesaregood.com

<http://treecaretips.org>

www.treecareindustry.org

www.isa-arbor.com

www.swifttreecare.com