

Midwest Nut Producers Council Journal

The Newsletter for Professional Chestnut Growers in the Midwest

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 Rogers Reserve at Michigan State University

 @MIchestnuts

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Michigan MarketMaker program offers opportunities for state's chestnut growers

Multistate initiative is free to use and connects growers with new customers

By Tom Kalchik

A multi-state partnership of land grant institutions and state agricultural agencies joined to form MarketMaker, a comprehensive and interactive database containing food industry marketing and business data. This platform is designed to foster the creation and expansion of business relationships between producers and consumers on a local, regional and national level. The MarketMaker program connects buyers with sellers of various food product- and service-related enterprises: agritourism, eating and drinking establishments, farmers and ranchers, farmers markets, fisheries, wineries, and food processors, retailers and wholesalers.

Currently, 11 chestnut growers are listed on the Michigan Market Maker program (<http://mi.marketmaker.uiuc.edu/>). To view the list of growers and a map indicating the location of each grower's farm on the website, go to the "Find a Business" panel on the home page. Select "farmer/rancher" from the drop-down list, type in the word "chestnuts" and click on "search." There is also an option to customize the report according to zip code.

To register your farm or business on Michigan MarketMaker, go to the "Register your Business" panel on the website's home page. Registration is free.

Once registered, registrants have the option to receive various alerts and notices. Scroll to the "Alerts by Location" section at the bottom of the sign-up page to "Narrow your Preferences" if you do not wish to receive notices from every state with an active MarketMaker program.

Chestnut Growers, Inc. (CGI) members are encouraged to connect their profiles to CGI (see illustration above as reference). Members can utilize Michigan MarketMaker to send messages to one or more CGI members, as well as to signal to customers that you are a cooperative member.

Highlights from the MNPC Annual Meeting 2013

By Dennis Fulbright, Michigan State University professor of plant pathology

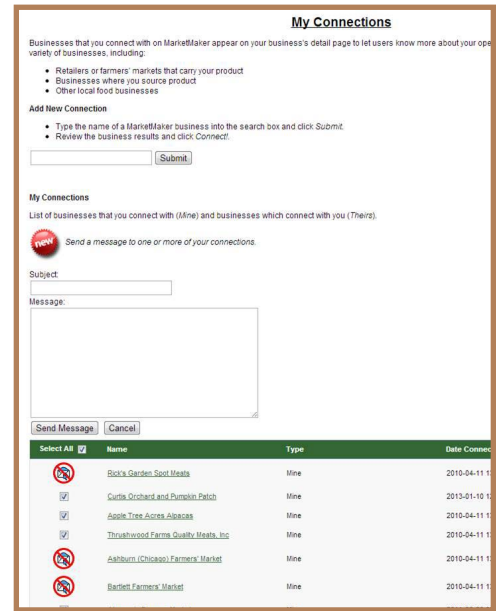
The Midwest Nut Producers Council (MNPC) annual meeting took place March 30 at the Michigan State University (MSU) Clarksville Research Center.

The meeting was called to order by MNPC President Pete Ivory. The primary items of business were the reading of the treasurer's report and the election of new board member Brian Knox.

MSU researchers held presentations on various subjects: the 2012 growing season and frost; managing chestnut blight with biological controls (hypovirulence); packaging chestnuts; and chestnut quality management.

MSU Extension educator Erin Lizotte also presented on integrated pest management (IPM) and scouting orchards for orchard pests.

The meeting was particularly well attended and included lunch. Plan to attend next year's annual meeting to learn about the 2013 growing season and hear a presentation on soil and leaf analysis and fertilization of chestnut trees.



My Connections

Businesses that you connect with on MarketMaker appear on your business's detail page to let users know more about your open variety of businesses, including:

- Retailers or farmers' markets that carry your product
- Businesses where you source product
- Other local food businesses

Add New Connection

- Type the name of a MarketMaker business into the search box and click Submit.
- Review the business results and click Connect!

My Connections

List of businesses that you connect with (Mine) and businesses which connect with you (Theirs)

Send a message to one or more of your connections.

Subject:

Message:

Select All	Name	Type	Date Connected
<input type="checkbox"/>	Rock's Garden Soot Meats	Mine	2010-04-11 1
<input checked="" type="checkbox"/>	Curtis Orchard and Pumpkin Patch	Mine	2013-01-10 1
<input checked="" type="checkbox"/>	Apple Tree Acres Apples	Mine	2010-04-11 1
<input checked="" type="checkbox"/>	Thruahwood Farms Quality Meats, Inc.	Mine	2010-04-11 1
<input type="checkbox"/>	Auburn (Chicago) Farmers' Market	Mine	2010-04-11 1
<input type="checkbox"/>	Badgett Farmers' Market	Mine	2010-04-11 1

Midwest Nut Producers Council President's Letter

By MNPC President Pete Ivory

There are many parts of effective orchard maintenance: fertilizing, ground cover maintenance, irrigation, pruning and pest management. We control our insects with pesticides, but the larger pests were not as easy to handle. When we first planted the orchard, fencing was not in our budget. With our kids desperately wanting a pet, we got a dog. We named him Cowboy.

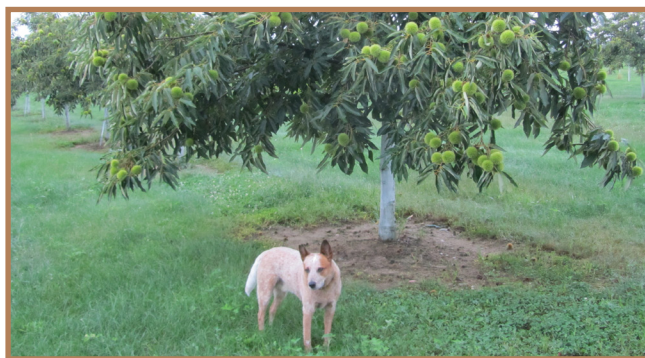
We soon realized Cowboy had a knack for hunting small rodents on the farm. He had a unique way of hunting woodchucks that were burrowing under our outbuildings. He'd run circles around them until they got dizzy and fell over. Then Cowboy would quickly grab the nauseated woodchuck by the neck and shake him to death.

Raccoons were not safe on our farm either. Cowboy would hunt them at night and bring the dead carcasses to my parent's house next door. Cowboy also played with the mice that lived in the orchard and then killed them when he accompanied me during our daily chores in the field.

Cowboy made sure deer knew they were not welcome on our farm either. With a quick, "Go get 'em", he would chase those deer right off our land. Sometimes, when the dog spotted the deer before we did, he'd race after them without permission. He learned after a particularly hard landing not to do that from a moving Polaris Ranger.

Cowboy helped deter two-legged pests from visiting our farm, too. Any salespeople or unwanted evangelical visitors thought twice before leaving the safety of their cars to bend our ears. We had a few small burglaries before getting Cowboy, but none since.

A few weeks ago, we decided to adopt another puppy named Smoky to help Cowboy with the pest management on our farm. After some resistance (jealousy?) on Cowboy's



Cowboy was a working dog, a watch dog and a friend. Photo provided courtesy of Pete and Joyce Ivory.

part, they became friends. They both accompanied me on my chore rounds in the orchard or wrestled in the haymow as I replaced boards in the barn.

The bonus with having a working dog is that after the work is done, they can play. After a hot summer day mowing the orchard or haying, we'd head across the road to the pond to cool off and take a swim. Cowboy would jump in the back of the Ranger and join us. Last week, my daughter, her friend and Cowboy walked to the pond to fish. As they returned, Cowboy was hit by a car and killed.

Any farmer in Michigan would tell you that one dog can't keep all those deer out of your orchard, and they'd be right. But no fence could welcome you home after a long day of work in the city, accompany your children as they wait for the bus stop in the morning, or find a walk in the orchard as satisfying as you do. As I look to the future and expanding the orchard, I probably will choose to fence any additional acreage I plant with chestnut trees, but I'll have my dog by my side, too.

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UPCOMING EVENTS

August 11-14 – 104th annual meeting of the Northern Nut Growers Association

Kellogg Hotel and Conference
Center, East Lansing

October – 2nd European Chestnut Meeting
Hungary

Oct. 13-19 – National Chestnut Week

Nov. 15 – Silver Bells in the City chestnut roast
Downtown Lansing

Nov. 16 - Autumnfest: College of Agriculture & Natural Resources Tailgate Chestnut Roast

MSU Pavilion for Agriculture and
Livestock Education, East Lansing

Dec. 10-12 – Great Lakes Fruit, Vegetable and Farm Market EXPO and Michigan Greenhouse Growers Expo

DeVos Place Convention Center
and the Amway Grand Plaza Hotel,
Grand Rapids

Integrated Pest Management Resources at MSU

As the season heats up, growers can stay up to date on the latest chestnut resources and information to help make in-season pest management decisions.

By Erin Lizotte, Michigan State University Extension statewide IPM educator

There are many valuable integrated pest management (IPM) resources and tools available to chestnut producers through Michigan State University (MSU). As chestnut production becomes more heavily reliant on real-time information and addresses evolving issues such as potential invasive pests, rising pesticide costs and challenging environmental conditions, MSU Extension is here to assist the state's chestnut producers in maintaining an IPM program that supports economic and environmental sustainability.

As a relatively new industry, the chestnut industry faces a number of challenges, including developing and implementing standard scouting practices to detect, identify and properly manage insects and disease pests. This is not a small challenge, and protocols will continue to evolve over time as the industry and University learn more about this ever-changing system. Michigan is fortunate because it has a long history of horticultural crop production. We can draw from the pest management experiences of the apple and cherry industries, for example, to develop some basic scouting techniques for chestnut producers.

Chestnut growers should be scouting at least weekly during the growing season and noting growth stages, significant weather events, beneficial insects, pest hot spots or any other useful observations in an easily accessible location that they can refer back to in coming years. Growers can start their scouting program with basic visual inspection. To complete a visual inspection, walk a diagonal transect across each contiguous block, stopping to inspect the leaves on 10 branches for insects (potato leafhopper, mites and foliar feeders), phytotoxicity, or abnormalities. Growers may need a hand lens or magnifying glass to view mites as they are small and difficult to see at low populations with the naked eye. Growers may also place unbaited, yellow sticky traps at four locations per 5-acre block (two in the interior and two in edge rows). Check and clean/replace these traps as needed on a weekly basis.

As growers walk the transect, they should take the time to inspect the tree canopy for rose chafer and Japanese beetle. Also look for signs of stress or wilt that can be caused by root rot fungi. Growers should also visually inspect the trunks as they walk a transect looking for signs of chestnut blight and sunscald (or southwest disease). These two conditions are often confused as they cause similar symptoms.

Lastly, growers should be on the lookout for signs of Asian chestnut gall wasp (ACGW), a potential invasive insect of concern that has not yet been found in Michigan. ACGW is easiest to scout for in the fall or winter after the leaves abscise from the tree, but they can also be seen during the summer months.

When it comes to keeping up with the latest developments affecting chestnut production, MSU Extension is an excellent resource. MSU Extension News for Agriculture offers expertise from MSU scientists and educators through



Image A is a double-sided yellow sticky trap for catching potato leafhopper. **Image B** shows the stunted, necrotic and cupped appearance of a chestnut leaf cause by potato leafhopper feeding. **Image C** shows feeding damage from Japanese beetle.

online articles addressing pest management in chestnut and weekly scouting reports during the growing season. What if you can't remember how to access the page? That's okay! You can sign up to receive weekly emails of chestnut-related articles via MSUE News. You can also opt to receive updates on other topics or cropping systems of interest to you. To access these resources, visit msue.msu.edu and select the "Agriculture" tab at the top of the page.

Chestnut growers should also refer to the MSU chestnut website at www.chestnuts.msu.edu. The MSU chestnut website acts as the clearing house for all MSU-related chestnut content and includes an extensive description of chestnut pests and treatment options, as well as information on internal kernel breakdown, orchard establishment and cultivar selection. Lastly, MSU also offers a number of additional online resources including the IPM website, which is devoted to the dissemination of information regarding sustainable pest management practices. It can be found at www.ipm.msu.edu.

MSU to host Northern Nut Growers Association's 104th annual meeting

By Dennis Fulbright, Michigan State University professor of plant pathology

Michigan State University (MSU) will host the 104th annual meeting of the Northern Nut Growers Association (NNGA) from August 11-14 at the campus Kellogg Hotel and Conference Center in East Lansing.

Carol Peterson and Stefanie Garcia, of Whole Foods, will present their company's concept of farm-to-market and approach to purchasing local products during the NNGA meeting's opening session the morning of August 12.

Whole Foods wants to continue to expand their offering of local, farm fresh products. Peterson and Garcia want to hear ideas and questions from attendees about the best ways for making connections with growers of various commodities and learn more about who is growing what and where.

This is a prime opportunity for chestnut growers to let Whole Foods know you are out there and looking for outlets to market your unique crop.

The number one question I receive every fall is, "I have a lot of (product such as walnuts) and I don't know what to do with it. Do you know if anyone is interested in buying product from me?"

This is your chance to find out for yourself if Whole Foods is interested in your products and, if they are, how to establish a relationship to get the product to market. The information that chestnut growers and growers of other specialty commodities learn during this session will be valuable because it can be applied to any farm market or grocery store situation.

In Michigan, our chestnut and pawpaw research program has been pursued to help growers obtain information about (1) planting the best trees available; 2) determining how to care for these trees; 3) finding the best ways to harvest and store the nuts and fruit; and 4) marketing them.

Both chestnuts and pawpaw have one thing in common: they don't store well for long periods of time compared to other nuts and fruit. They must be harvested, placed in

short-term storage, moved to markets and sold to the customers in a relatively fast turn-around. Compared to pawpaw, chestnut has a much longer storage period, as pawpaw can only be stored for a couple of weeks before it is overly ripe. How can we deal with such a fruit? These and other issues will be covered during the meeting and field trips.

On Tuesday morning, conference goers will tour the south part of the MSU campus and

see the 'Colossal' chestnut trees planted in 1997, which are currently undergoing biological control to manage the disease known as chestnut blight. You will be able to inspect these trees to observe the treatments. We will describe chestnut blight, the origin of the biological control and how to treat the trees.

On Wednesday, August 14, we will travel by tour bus to Lapeer to see one of Michigan's newer large commercial chestnut orchards that has been planted with nearly 20 different chestnut cultivars on about 25 acres. Michigan Nut Producers Council (MNPC) President Pete Ivory and his wife Joyce will welcome you and show you around their orchard.

After the tour and lunch, we will proceed toward Ann Arbor to see the largest pawpaw planting in Michigan. This will be followed by a barbecue dinner and tour of the MSU Jackson Research Station. Attendees will be able to view various pieces of equipment, including the chestnut harvester, peeler, slicer and scoring machine and a newly installed oven used for preparing dried chestnut products. If we are lucky, there will even be one really new piece of equipment to show off, a new pulper/strainer from Italy.

This will be a great opportunity to see what Michigan first planned in 1993 and began to carry out in 2003 was successfully achieved in 2013 thanks to research and education.

Visit www.nutgrowing.org to register for this conference. The registration deadline is August 2.

**"The information that chestnut growers and growers of other specialty commodities learn during this session will be valuable because it can be applied to any farm market or grocery store situation."
- Dennis Fulbright**



The MSU pawpaw research program was developed to identify successful practices for growing this specialty crop in Michigan. Conference attendees will learn more about the university's research program during educational sessions and field trips.



Representatives from Whole Foods will present their company's concept of farm-to-market and approach to purchasing local products during the NNGA meeting's opening session.

'Colossal': the frost of 2012 and predicting yields

By Dennis Fulbright, Michigan State University professor of plant pathology

The Frost of 2012 and 'Colossal'

With the severe frost, it was thought we might lose the entire 2012 chestnut crop. Michigan didn't, however, and that was because the northern portions of the Lower Peninsula and many of the southern locations of the Lower Peninsula did not completely lose production. I was told that the Michigan cooperative, Chestnut Growers Inc. (CGI), actually met most of its customers' needs.

In 2012, when the frost struck the state, we thought we would lose production at most locations in the southern portions of the Lower Peninsula where the frost was worse and trees had pushed, and we did in some locations. However, at other locations we saw the cultivar 'Colossal' do something it had never done before. 'Colossal' produced female flowers on its lateral branches. This may have had something to do with the type of frost or the stage the trees were at when the frost struck. More than likely, though, it had more to do with the age of the trees and their location. Young 'Colossal' chestnut trees only produce female flowers (becoming the bur) on the terminal branch buds, but apparently older 'Colossal' trees can produce female flowers from the buds that break from behind the terminal bud.

Of course, some didn't. For example, all chestnut trees at the MSU Southwest Research and Extension Center (SWMREC) in Benton Harbor were so severely frosted they did not produce nuts at all. Yet in other locations, the frosted terminals of the 'Colossal' trees and other Japanese X European hybrids did not lose the capacity to produce flowers on the lateral branches. This allowed many trees to produce more chestnuts than predicted based on previous years and previous frosts. The 'Colossal' trees at the MSU Clarksville Research Station produced their highest yields in 2012, while Chinese chestnut yields were reduced. The other Japanese X European hybrid cultivars were too young to determine how much the frost hurt them, but they all produced pounds of nuts. These data were presented at the MNPC annual meeting.

Predicting yields with 'Colossal' chestnut trees

One of the most important aspects of science is that it allows us to make predictions based on previous experiences collected over time. That brings into focus our need and ability to make accurate yield predictions. Here are our best guesses.

Based on 'Colossal' trees at the SWMREC plantings in Benton Harbor, the Clarksville Research Station plantings and plantings on campus in East Lansing, 'Colossal' trees should go into production before their fourth season. This small amount of early production per tree should help pay for the tree itself, certainly by the seventh season. Therefore, by the eighth season, the trees should be in commercial production, dropping double-digit poundage of chestnuts. By the 10th season, 'Colossal' could be approaching 40 to 50 pounds of chestnuts per tree. This, of course, is based on the location where you are growing them, the amount of

pollinating trees available and the care provided to the trees over those 10 years. If, for example, you have 80 'Colossal' trees per acre and they were producing 30 to 40 pounds per tree, you could be producing up to 3,200 pounds per acre.

When chestnuts were first being touted in the 1980's, 2,000 pounds per acre was predicted. Now we know that 'Colossal' can easily surpass that amount and within the first 10 years. Based on the trees at the Clarksville Research Station (which is no special location in terms of soil and weather), some of which are in their 10th and 11th seasons, the 'Colossal' trees produced (extrapolated) 3,120 pounds per acre (based on 80 trees per acre), even with the 2012 frost, drought and heat. In an orchard with good pollination and location and with proper care, we believe that 'Colossal' can easily reach such yields. In a commercial orchard we frequently monitor, the 'Colossal' trees range in age between eight and 12 years old. In the frosty, hot and dry year of 2012, the orchard produced approximately 3,000 pounds per acre, thereby showing that our science-based prediction is not too far off from reality.

We cannot stress enough that fertilization, pollination, pest control, irrigation and location of orchard are all factors playing into yield. Also, it must be remembered that 'Colossal' is chestnut blight-susceptible, and we need to plant other cultivars such as 'Bouch de Betizac', which may offer more chestnut blight resistance. Please visit www.chestnuts.msu.edu and read about the new germplasm that might be more chestnut blight-resistant. Also, remember, to never plant Chinese chestnuts with Japanese X European hybrids as internal kernel breakdown (IKB) could reduce your yields by up to 30 percent. Read about this at www.chestnuts.msu.edu. There should be at least one mile between Chinese chestnut and 'Colossal' or other European X Chinese cultivars.

