

AMERICAN PAULOWNIA ASSOCIATION

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ANNUAL CONFERENCE REPORT – OUR ALTERNATIVE ENERGY SOURCE RAINSVILLE, ALABAMA APRIL 12-14, 2012

Some people may have gotten involved with Paulownia because of its novelty, fast growth, beauty, or a lot of other reasons. But most folks in the Paulownia business are there because of Paulownia lumber.



Bear Brown's Plantation

Fast growth is still a factor when one can produce high quality lumber in a fraction of the time it takes for traditional hardwoods, or even conifers. But it is the characteristics of this lumber that is its main selling point. The beautiful blond color is one compelling characteristic, as well as its strength. But Paulownia lumber is much lighter in weight than most other woods. In fact, it is almost as light as balsa. In applications in which the strength to weight ratio is critical, Paulownia lumber is an unmatched solution.

As Paulownia has been planted in the United States in the last 25-30 years, mistakes have been

made (as best practices were being developed) and weather, insects, climate, and a host of other variables have served to destroy the lumber-producing potential of many plantings.



Plantation of George Newsome, Freeze Damage Tree Deformity

Thick plantings may still have a creditable butt log, but also have tremendous top growth not suited for lumber. Crooked logs do not saw into lumber. Multiple stems rarely grow straight into usable logs. Even with so little Paulownia planted, there is already much that is not, will not be, suitable for lumber. In addition, when Paulownia is harvested, the “slash” cannot be left lying in the field. It must be removed so the subsequent crop can be attended. Problems, or opportunities?

\$4-a-gallon gasoline is all the example we need to know that an alternative or alternatives to fossil fuels will certainly be of advantage. For the last some

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President's Message...

Dear Friends and Members,



Beautiful May is upon us. While flowers and trees are blooming we begin another growing season. At our recent Annual Meeting in Rainsville Alabama, we were treated to another rewarding series of events. George Newsome, the local arrangements person, had done an excellent job setting things up for our meeting, the lunch and the field trips. A highlight was the work done by local innovators who used biomass and gasification principles to provide alternate energy for a heating furnace and for powering pickup trucks. This is cutting edge technology that related to our growing Paulownia for a wide range of end markets. Learning about these developments is what our Paulownia Association is all about. I know you'll enjoy this issue which again contains an upgraded quality output shepherded by Dan Blickenstaff. Enjoy!

Vince Luchsinger

DEKALB COUNTY, ALABAMA

Driving into Rainsville from the South, there appeared to be a great deal of new construction. The school on the left looked new or newly renovated. The hotel, Rainsville Inn Best Western, was new and stood alone on a hill. Strangely, there was an empty foundation slab between the highway and the hotel—flowers growing all around. The remainder of the hill behind the hotel looked to have been mown down, then brush allowed to grow. I just didn't have a clue.

As it turned out, one year ago, in late April, 2011, the largest system of tornados in Alabama

history devastated the state, Dekalb County, and the immediate area around where the Annual Conference was held. Several people were injured in a Huddle House on that empty slab with the beautiful, seemingly wild, petunias. Thirty-three people lost their lives in Dekalb County alone; and 200 injured (*Birmingham News*, 4/28/11). Most of us didn't know it, but we were on sacred ground.

As you know tornados can be very selective—

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- First to facilitate the testing and production of Paulownia plywood outside of China (2000)
- First to facilitate the testing and production in Japan of Paulownia plywood made from American-grown trees (2007)

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years we have been bombarded with alternatives—none of which are as convenient in their present form and with present technology. Solar, wind, geothermal, and others; but most promising to us is bio-mass. A campfire in a cave many thousands of years ago was a good use of biomass.

Biomass fuel is the conversion of woody, and sometimes vegetative matter into more usable fuels. Corn into ethanol is a good example, but results in higher feed and food prices. Wood pellets for home heating is another example. Synthetic gas (syngas) from (mostly) wood to fuel a variety of uses is a known and proven (as early as pre-WWII) technology.



George Newsome, Conference Host and APA Research Chairman

When asked to organize an annual conference for the American Paulownia Association near his home on Sand Mountain in North Alabama, George Newsome went with what he knew, and what had been consuming his mind and thoughts since 2007. Biomass! Why?

George has been growing Paulownia trees since 2003, and made a second planting in 2004. His intentions were to grow trees for lumber, like most other growers. Then a “one hundred year event,” a deep drawn out freeze in 2007 killed back most of his trees, and damaged all of them. In his own words,



Newsome's Freeze Damage Tree Kill

“that took the wind out of my sails.” In hindsight, George believes he should have re-coppiced all his trees, and thus started his plantings over. He did not. So his became the perfect example of plantings to be used for biomass.

Since 2007, George has done a great deal of research on biomass and its uses, particularly in respect to Paulownia growing. Such is the backdrop for the 2012 Annual Conference of the American Paulownia Association: “Paulownia—An Alternative Energy Source.”

Sometimes the afternoon before, but this time in the “first period,” APA starts its annual conference with a pre-conference orientation to Paulownia and its appreciation, culture, and marketing. The conference is promoted widely and attendees with no background or knowledge in Paulownia are expected to attend. This pre-conference orientation is designed to bring “newbies” up to speed so the jargon, inside language, and “institutional knowledge” of the remainder of the conference will be intelligible to all. This year’s instructor was Yours Truly with much help from knowledgeable attendees in the audience.



VP Ralph Donaldson Receiving Wooden Paulownia Plaque from President Luchsinger.

Next, Mr. Lynn Washington of the Alabama Forestry Commission spoke on the “state of forestry



Lynn Washington, Alabama Forestry Commission, Receives Certificate of Appreciation from President Luchsinger.

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utterly destroy one house and leave the one next door undamaged. A story from my childhood that remains with me is of a lady so sick in bed she could not be evacuated to the safety of a shelter. The roof, walls, and most of the furnishings were lifted completely away. She was found on her bed—exactly as she had been left—asleep and soaking wet.

Such selective devastation begs a satisfactory explanation. There is none. Our hotel was spared; didn't seem to have been damaged at all, while utter devastation and death stalked about. The hotel is owned/run by Indian immigrants. Indians have a rich and diverse culture, but most are part of the Hindu culture, and that means of the Hindu faith. Hindus have many symbols, iconic figures with different purposes; specialists, so to speak. One, Laksmi, has, among other interests/responsibilities, the integrity of the house and home, safety, and general good luck. A good luck charm, possibly of Laksmi, hangs over the door of the Rainsville Inn Best Western.



Laksmi Good Luck Charm

There were other guests at the hotel in April, but somehow I felt we were the only ones, and I felt comfortable and safe. Laksmi, maybe? 🌿

Ralph Donaldson, Editor



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Northern grown Paulownia rootstock and plants available both retail and wholesale; species include: P. "tomentosa", P. "elongata", P. "fortunei", and P. "kawakamii". Free planting and care instructions provided with all orders. Professional plantation design, management recommendations, brokerage services, and consultation available upon request.

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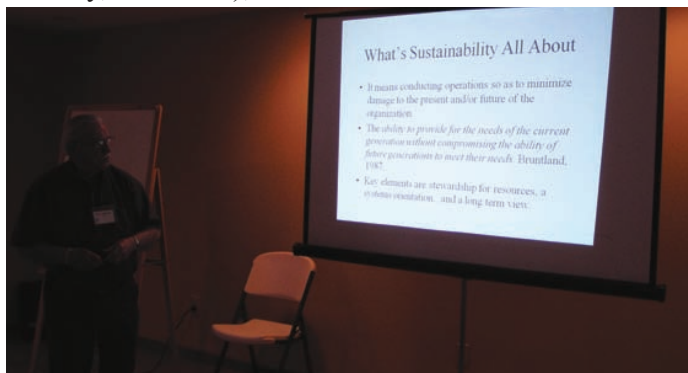
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in Alabama.” Sitting on the lower edge of the Appalachians, northeast Alabama is lush with forest growth; some conifers (mostly pines), but mostly hardwoods.

APA President Vince Luchsinger, PhD., retired USAF Major General, Professor of Management at the University of Baltimore, and grower of Paulownia trees in Pennsylvania; lives, breathes, and teaches “sustainability.” Sustainability addresses the need to manage human activity, our behavior if you will, in order to conserve natural resources—all of them—for future generations. The planet, including from weather to natural disasters (see note on Dekalb County, Alabama), will do what it will do. What we



What is Sustainability?

have some chance of changing is our own behavior toward the earth and its riches in order to make humankind's future on the earth more secure. Many European countries, by necessity, are a generation or more ahead of the US in terms of sustainability thinking and planning and working toward a sustainable future. The sheer volume of natural resource consumption in the U.S., however, makes our opportunities greater as well as the barriers to

success greater. We can have a greater impact on the future just because small changes now can reduce the need for greater, more painful, changes in the future.

Joe Jenkins, Paulownia grower and long-time APA member from South Carolina, spoke of his efforts to construct an experimental airplane from Paulownia lumber. Joe told us how Paulownia



Member Joe Jenkins Discusses Building a Paulownia Wood Airplane! compares to Sitka Spruce, the “gold standard” in wooden aircraft construction, and his recent difficulty with Gorilla Glue. Don’t even think of starting your Paulownia airplane without talking to Joe.

Danny Blickenstaff, past President, Publicist, and all-around unpaid Executive Director, spoke of his experiences harvesting the Maryland plantation of member Don Bates. APA visited the Bates plantation on its Spring Fling in 2005. The first phase of harvest included the three “outside” rows of threes. Only these were large enough to saw efficiently for lumber. You see, after the grower stops “pruning” the sprouts and “suckers,” logs do not grow longer. But in thickly set plantings, and once the canopies grow

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together, long—usually crooked—tops continue to grow as the trees reach for sunlight, and butt logs grow slower because of this use of resources by the tree. Mr. Bates wants his original farmland cleared, and Mr. Blickenstaff needs a use (market) for all that currently unusable wood. Wood pellets for home and commercial heating is one avenue being explored.

About this time we all evacuated the building because of a fire! Yes, really, but it was a Paulownia wood “chunk” fire in a gasifier powering a Dodge Dakota pickup. Wayne Keith, inventor/developer, had



The Keith Gasifier Gets Lots of Attention.

just driven this truck 90 miles to the conference on nothing but Paulownia power. Now my head knows that this is not new technology, going back to World War II and earlier. But I go back about that far, and had never seen one. It was new to me. And old or not, perhaps its time has come. Just to think that one can truly drive wherever and whenever he wants, never stop at a gas station, and dispose of scrap wood all at the same time! Maybe sixty or seventy-year-old technology, but it could be a game changer for a lot of us with scrap wood coming out of our ears and gasoline near \$4 a gallon.



Wayne Keith's Gasifier Closeup.

I certainly cannot even grasp, much less convey to you, the technical aspects of this. But the truck appeared to be running well—It had just completed a 90-mile drive. It required an older engine with carburetion—aspiration over injection. The “gasifier” on the back was hot enough in one place that you wouldn’t want to hold your hand on it, but you could touch it briefly without getting a burn. The wood required for the trip home was modest—a lot of the truck bed was available for other cargo. There was a cost in horsepower of between 10% and 20%—hence Mr. Keith preferred V-8 engines to assure adequate power.



A Fact, This V-8 Truly Runs on Paulownia Wood Gases.

Mr. Keith was quite a character, as you might expect. His introduction of one slide with two Auburn University PhD.’s and himself as Wayne Keith, GED, was priceless. More technical data, pictures, a sample of Mr. Keith’s wonderful personality, and free plans for your own gasifier can

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WALNUT COUNCIL

We are an association of over 1,000 members representing foresters, researchers, and growers of walnut and other fine hardwoods in 45 states and 4 foreign countries. One of our objectives is to transfer forestry research and other useful information from the laboratory to the timber grower.

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be found at:

www.youtube.com/watch?V=rHjUJPeUh7A. The fire truck did come, but it was much more interesting than a 100-foot ladder rig.



Wayne Keith Receives Certificate of Appreciation from President Luchsinger.

Next up was Alabama Cherokee, preacher, mechanic, fixer and inventor Tom Silver. Raised in a repair shop, often when he should have been in school, Tom Silver learned to build it, fix it, and make it better at an early age. He has been a “parts scrounger” for Lockheed Aircraft and operated his own tractor parts supply house.



Paulownia Newsletter Junior Reporter Nyla Newsome Interviews & Photographs Tom Silver.

Mr. Silver brought with him a large alternatively-fueled furnace to heat—and keep dryer, importantly—two forty by 200-foot chicken houses. This furnace could use wood pellets, chips, and even pegboard punch-outs.

Mr. Silver is a charismatic speaker, a Renaissance man, and most impressive, thoroughly knowledgeable and able. More information on his furnace can be found at www.freeheatinc.com.



Tom Silver's Biomass Furnace.



The Charismatic Tom Silver, Inventor & Biomass Energy Promoter.

Oh yes, we packed in lunch (quite literally “packed in” Alabama barbecue and fried chicken), and the association’s annual membership meeting. It was a long day, but a most eventful and informative one. The Annual Conference of the American Paulownia Association always is. If you missed it, you missed a good one. See you next year in East Tennessee.



Sharon Blickenstaff Secretary Treasurer at Membership Meeting as Lunch is Prepared

Ralph Donaldson, Editor

SUCCESSION PLANNING

It happens to all of us. We live if we are lucky. We die; no matter what. Some people live like there is no tomorrow. An equally uninformed (or perhaps denial is the concept) approach, is to live like there is an unlimited number of tomorrows. Neither is a safe bet.

A small black preacher, so small he had to just about jump to see and be seen over the pulpit, recently said at a funeral that “someday, maybe sooner than later, somebody else will be wearing your clothes and somebody else will be driving your car.” Even so, you might expect them to be taking care of “your clothes” and “your car.”

We spend much of our lives building a Paulownia plantation that represents so much effort, so much deep thought and research; and represents so much of our dreams. All this while knowing deep down that, one day, “somebody else will be “driving that car.” But will they be taking care of those trees that you worked so long and hard for.



Bear Brown's Field Trip, Caring by Glenn Bauman and Kevin Cowan.

A lawyer probably should always be involved in succession planning. If you own enough, a tax professional should also be involved.

But succession planning mostly involves you, what you want done, and those significant others that you want involved when you are gone. If you knew you were going to die soon and owned a '57 T-bird, wouldn't you want to make sure the person to whom you were leaving it knew how to drive, and knew how to take care of a classic car.

You know how old you are, and have a general idea of your own health. But still, you don't know when. Maybe you want to make sure the person who's going to be “wearing your Paulownia trees” knows how to take care of them.



Glenn Bauman, Kansas Paulownia Grower, Old German Baptist, All-Around-Tree-Hugger, at R.B. (Bear) Brown's Plantation

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ANNUAL CONFERENCE FIELD TRIP PHOTO SHOTS

R. B. Brown's Plantation



A Few Diameter Measurements.



Field Trip Group Heading for the Trees.



Did Someone Forget to Mow, George Will Make Quick Work of It.



Conference Field Trippers at Bear Brown's Plantation, Hunting Lodge & Lookout Mountain in Background.



Where Do We Go from Here?



George Newsome Explaining Some Plantation Basics.



A Lower Section of the Plantation that is Struggling.

ANNUAL CONFERENCE FIELD TRIP PHOTO SHOTS

George Newsome's Plantation



George Newsome's Hybrid Paulownia, Nice Butt Growth.



Newsome's Plantation, Nice Timber Trees Exist, Not All Is Lost.



Look at the Seed Pods on
This Hybrid.



A Long Walk Through George's Plantation.

Damaged but Blooming.



A Lot of Top Growth, but Some Nice Butt Logs.



Tomentosa Fortunei Hybrid Closeup.