Woodturners CHAPTE2

September 2005

Toxicity of Wood

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Lately we have talked some about the allergies many of us get when working certain species of wood. I personally have spent time in a doctors office because of reaction to wood and the dust I create when sanding. I have to wear a respirator and skin protection on many types of wood. This article is a compilation of several articles found on the Internet.

There is no doubt that some woods can be potentially toxic to some people. The question is always one of "what degree". This cannot truly be answered. Each individual has different degrees of resistance, some more prone to allergic reactions, and others not so. Every day our knowledge of tree biology and chemistry grows, leaving us with more information, but also more

questions. How all this relates to each individual is impossible to know. All we can say is "be cautious". Use new woods in a limited way, with proper respirators, until you know that it has no adverse reaction with your body.

Be cautious - just because something doesn't cause a reaction the first time doesn't mean you'll never have an allergic reaction. Your sensitivities can build with exposure. Allergy-prone people should be more cautious in the woods they chose and everyone should limit exposure to sawdust of new woods the first few times you work with it. Have fun, but be healthy!

More on page2.

Handmade Tools Fixtures and Jigs

The meeting Monday September 12 will focus on handmade items that make turning easier or better. Bring your handmade items to our meeting for a night of exchanging ideas for those indispensable items that you make to supplement your purchased tools.

Club Events

Events held in basement of McCray Lumber off I-35 on 67th Street in Merriam Kansas entrance on west side of building

Sept 10-12 Andi Wolfe

Sept 12 Monday Meeting - Handmade tool fixtures and jigs.

Sept 17 - 18 Deanna Rose

Sept 24 - Fourth Saturday

Special event !!!

Coloring and Painting Techniques Pyrography - Playing with fire Andi Wolfe will demonstrate for our club this weekend Sept 10-

Andi Wolfe will demonstrate for our club this weekend Sept 10-12. Saturday Sept 10 9 a.m. to 4 p.m. will be a session available for all at a cost of \$10 for members and \$17.50 for non members. All who have pre registered and paid will have lunch provided - those who pay at the door will need to provide their own lunch.

Sunday and Monday sessions are already full.

Calendar of Events

September 10 - Demo Andi Wolfe - Normal 2nd Saturday canceled

September 11 - 12 Andi Wolfe Hands on demos (Sold Out)

September 12 - Monday Meeting Tools Fixtures and Jigs

September 17 - 18 Deanna Rose

September 24 - Fourth Saturday Open Lathe

October 8 - Second Saturday

October 10 - Monday Meeting - Annual club auction.

Deanna Rose

We will be turning at the Deanna Rose Apple festival again this year. Everyone in the club is asked to turn two tops for the fund raiser for the farmstead. We will turn tops on site using the club's Jet mini lathe. The dates are September 17 - 18 from 11 a.m. to 3 p.m. Contact Bruce Page at the meeting if you would like to turn or help man the booth.

Woodcraft Supply

8645 Bluejacket Rd. Lenexa, Ks. 66214 (913) 599-2800

Store Hours

Monday through Friday 9am - 9pm Saturday 9am - 6pm Sunday 9am -5pm

Craft Supplies

1287 E 1120 South Provo, Utah 84606 1-800-551-8876

Toxicity of Wood

For centuries, it's been fairly common knowledge that some woods could hinder your health. As far back as 60 A.D., the Roman historian and naturalist Pliny the Elder described a case where four soldiers actually died after drinking wine from hip flasks made of yew. Of lesser gravity was the experience of a few German sawyers in the early 1700s. It seems they developed chronic irritation of the nose and eyes, as well as headaches, from sawing bald cypress.

What are your chances of a reaction to wood? Statistics say that only 2 to 5% of all people develop an allergic sensitivity to one or more compounds found in wood. But, if you handle a lot of potentially toxic species, and work with them long enough, you increase your chances of an allergic reaction. And, with sufficient exposure, some woods bother almost everyone.

Any dust, including wood dust, mildly irritates the sensitive mucous membranes of your nose and eyes, making you sneeze and tear. The dust of some woods such as western red cedar and rosewood can be especially bothersome. However, other woods, called irritants, can make you even more uncomfortable, with a rash that classifies as either irritant dermatitis or allergic dermatitis. The rash usually has a uniformly red, swollen area that may erupt in blisters, and typically first shows up on the webs of skin between your fingers. Irritant woods include black locust, cocobolo, ebony, oleander, satinwood, sequoia, and yew.

However, for you to get an allergic-type rash, you first must be allergy-prone to one of more of the chemicals found in certain woods called sensitizers. And, it may take repeated contact for your body to develop a great enough allergy for it to react (the so-called "latency period of as little as five days and up to 6-8months). If you do eventually get a reaction, the rash will

look like poison ivy - red with small, individual, itchy bumps. Sensitzer woods include cypress, balsam fir, beech, birch, elm, greenheart, mahogany, maple, myrtle, redwood, sassafras, spruce, walnut, willow, western red cedar, and teak.

In addition to the actual wood dust, molds frequently trigger reactions, too. One that actually grows in wood happens to be extremely potent: *Cryptostroma corticale*. This mold lives happily between the bark and sapwood of many hardwood trees, especially favoring maple and birch. It's responsible for the marbleized spalting that woodturners prize, and for "maple bark stripper's disease," a condition with all the symptoms of a severe respiratory allergy.

If you have an aspirin allergy, be wary of willow and birch. Both of these species possess significant concentrations of salicylic acid (the predecessor of aspirin) and very sensitive individuals might only need casual exposure, such as a whiff of sawdust, to react.

Never say "no" to a dust mask. Among woodworkers, the chances of developing nasal and sinus cancer run about 5-40 times greater than non-woodworkers. Although researchers haven't identified the exact cancer-causing compound (primarily because the disease has a latency period from 30 to 50 years), some evidence points to dust from wood with high tannin content, such as chestnut, oak, redwood, western red cedar, and hemlock.

If you are sensitive to wood dust, work in a well ventilated area (this also reduces the risk to mold), avoid unseasoned wood as much as possible, and wash or shower frequently. If you develop persistent rashes or respiratory problems, contact your physician or dermatologist.

List of Woods Toxic to Man The following chart appeared in American Woodturner, June 1990,

Wood Bald Cypress Balsam Fir Beech Birch Black Locust Blackwood Boxwood Cashew Cocobolo Dahoma Ebony Elm Goncalo Alves Greenheart Hemlock Iroko Mahogany Mansonia Mansonia Maple (Spalted) Mimosa Myrtle Oak Oak Obeche Oleander Olivewood Opepe Padauk Pau Ferro Peroba Rosa Purpleheart Quebracho Quebracho Redwood Redwood Redwood Rosewoods Satinwood Sassafras Sassafras Sassafras Sassafras Sassafras Sassafras Sequoia Snakewood Spruce Walnut, Black	Reaction SSS,SI,SSSSI,SSSSI,SSSSI,SSSSI,SSSSI,SSSSI,SSSSSS	Site R R E <th>Potency + ++++++++++++++++++++++++++++++++++</th> <th>Source D LB LB, D W, D W, D W, D W, D W, D W, D D W, D D W, D D UB LB, D D UB LB, D D UB UB, D UB UB, D UB UB, D UB UB, D UB UB UB, D UB UB</th> <th>Incidence R C C C C C C C R R C U C U C C U C R U C C C R R R U C C U R U U C C R U R R R C C</th>	Potency + ++++++++++++++++++++++++++++++++++	Source D LB LB, D W, D W, D W, D W, D W, D W, D D W, D D W, D D UB LB, D D UB LB, D D UB UB, D UB UB, D UB UB, D UB UB, D UB UB UB, D UB	Incidence R C C C C C C C R R C U C U C C U C R U C C C R R R U C C U R U U C C R U R R R C C
Sequoia Snakewood Spruce	I I S	R R	+ ++ + ++	D W,D W,D	R R R

Reaction:

I - irritant

S - sensitizer

C - nasopharyngeal cancer

P - pheumonitis, alveolitis

DT - direct toxin

N - nausea, malaise

Site: Source:

E - eyes

C - cardiac

R - respiratory

S - skin D - dust

LB - leaves,bark

W - wood

Incidence:

R - rare

C - common

U - uncommon