

# This week's TUTOR'S TIDINGS



Week 12

Friday 22nd April, 2016

## AGAR

(*Aquilaria*)

## BEAUTIFUL WOODS of the WORLD

(No 6 in a series of 10)

### Agarwood (Oud)

**Common name:** Agarwood, oudh, agalocha

**Plant family:** Thymelaeaceae

**Genus:** *Aquilaria*

**Species:** There are about 15 species of the genus *Aquilaria*

Agarwood is reputed to be the most expensive wood in the world. There are many names for the resinous, fragrant heartwood produced primarily by trees in the genus *Aquilaria*. Most commonly, the resin is known as agarwood, aloeswood, eaglewood, gaharu, agalocha or oudh (In Arabic).

Agarwood has been used to make high quality incense since centuries. The Chinese describe its smell as "a sweet, deep but balanced fragrance" and use it in religious and festive celebrations, and so do Arabian, Indian and Japanese people. Agarwood is also part of many traditional pharmacopoeias, dating back to medieval times and Chinese doctors still prescribe it for colds and digestion problem. Oil extracted from agarwood is used in Arabian countries as a perfume.

Agarwood is a resinous heartwood that occurs in trees belonging to the species of *Aquilaria*, *Aetoxylon* (*A. symeatalum*) and *Gonystylus* genus of Thymelaeaceae family. However, species of the genus *Aquilaria* are mostly known for the production of agarwood - it's a fast growing, evergreen tree.

Agarwood or oudh forms as a reaction to fungal or bacterial attack. Trees, occasionally become infected with a parasite mould secrete a fragrant, protective oil into wounded areas (roots, branches or sections of the trunk), which gradually become harder and dark brown to black. The heartwood (*central part of a tree, which is darker in color than the sapwood*) is relatively light and pale color before infection. Normally harvesters would cut only the infected parts in the hope that the tree would produce more of this resinous wood.

## AGAR (Oudh)



*Aquillaria Malacensis* is considered to be the queen of Indonesian oudh. This tree can grow about 40 M or 131.23 ft in height with its diameter 80 cm. It is the best producer of agarwood resin and oil in Indonesia.

*Aquilaria crassna* saplings. 4weeks after germination, 4inches tall



Agar: A valuable tree. Today Agarwood plantations exist in a number of countries, including Bangladesh, Bhutan, India, Laos, Myanmar, Papua New Guinea, Thailand and Vietnam.



*Aquilaria tree showing the infected darker part - agarwood*

*Today Agarwood plantations exist in a number of countries, including Bangladesh, Bhutan, India, Laos, Myanmar, Papua New Guinea, Thailand and Vietnam.*

*Aquilaria species that produce agarwood **are found throughout Asia**, while occur naturally in South and Southeast Asia. The Indian sub-continent was the main source of agarwood for many centuries but as trees became scarce in the middle of the twentieth century, extraction intensified in Indochina. Later on it was extended to Indonesia and Malaysia.*

Agarwood is exported in various forms (wood chips, powder, oil and as finished products such as perfumes, incense and medicines), and the main importers are countries in the Middle and Far East - in particular the United Arab Emirates and Saudi Arabia (where agarwood is known as oudh), as well as Hong Kong, Taiwan and Japan.

There are three methods through which agarwood oil is distilled namely, hydro-distillation, steam distillation and super critical CO<sub>2</sub> extraction. However, the most common methods of distillation are hydro-distillation and steam distillation. Another thing that has its mark on the distillation of the oil is the age of the tree. Older trees have a higher resin content and just like a wine, old resin gets better with age. Speaking of

the grading of agarwood oil, the best quality oil comes out from first distillation and after this the wood undergoes for second distillation and hence, it is graded accordingly the number of times it is cooked.

**EXTRACTION:** Oil coming from steam distillation is said to lack the three-dimensional smoky quality which comes from hydro-distilled oil. In both methods, after the oil has been distilled, it is filtered, sunned, and aged for a while. The more the oil aged, the better it will smell.

## WHY IS AGARWOOD EXPENSIVE?



Low yield from plant material, typical and labour intensive process of extraction. These are all very few reasons of high costing of Agarwood Oil. Low grade of resinous wood is used for oil production normally require minimum 20kg to produce 12ml of oil.

Another reason of agarwood being expensive is a threat to becoming endangered. The most important resin-producing species of *Aquilaria* are *A. agallocha*, *A. malaccensis* and *A. crassna*. *A. malaccensis* is protected worldwide under the CITES (The Convention on International Trade in Endangered Species of Wild Fauna and Flora) convention as well as by the World Conservation Union, IUCN. *A. crassna* was listed as an endangered species few years back by the Vietnamese Government but is now listed as a protected species in Vietnam.

## USES OF AGARWOOD

An important use of agarwood is the production of incense. Agarwood is an aphrodisiac, both in oil form, and as incense. These are generally topical uses but the oil is also sold in Vietnamese pharmacies for internal use with the same goal. Chinese medicine uses powdered *Aquilaria* as a treatment for cirrhosis of the liver and for other medicines. It has also been used as a treatment for lung and stomach tumors.

---

## CLUB NEWS

***Three new members in a week! We have enrolled one new member for the Tuesday and two more for the Thursday session.***

***The Thursday group is now operating at capacity - fourteen turners on fourteen lathes. Wow it's great to see the club being supported with increasing membership.***

*The Thursday team welcomed **CHRIS KAAN** who made a flying start to his turning journey with just the final touches to be made to his first project, a knockout bar. Chris is another first-time turner who showed how quickly the intricacies of the roughing gouge can be learned.*

*On Tuesday last we welcomed **ROSS KENNEDY** who also made a flying start to his turning journey. Ross completed the introductory project (knockout bar) and learned a heap on basic skills on the way. Impressive work and skill with the roughing gouge - turned a square section length to a cylinder in no time at all.*

*Our three **DAVIDs (Moodie, Rose and Mollekin)** will be returning to the Tuesday group as soon as other commitments have been attended to.*

*A good number of our members attended the Waikato Guild of Woodworkers' monthly meeting last Tuesday evening to watch **TERRY SCOTT** demonstrating the turning of a sphere complete with pewter infill.*

*Our club is grateful for the **WGW's** kind invitation that enabled members of our club to share that experience.*

## National WOODSKILLS Competition

**Kawerau 23, 24, 25 September**

*Entry forms due by Friday August 2015 - Exhibits received by Friday 16 Sept.*

*All details available at: [www.kaweraudc.govt.nz/Woodfest](http://www.kaweraudc.govt.nz/Woodfest)*

*(more information to be found in this week's TT - continue reading....)*



Our new member **ROSS KENNEDY** looks pleased with his effort - and rightfully so! This was Ross' first foray into the world of woodturning and he completed the introductory project at straight up first shot! Wow that's an achievement.

Next up is the bud vase project

Well done ROSS.

**MUHANNAD** made this bowl from just about the best looking wood we have seen for a long time. I wish we knew the name of the tree it came from.





Meet new member **CHRIS KAAN**.

*Chris is well on the way with his introductory project – a knockout bar.*

*Chris, we hope you have fun and enjoy working alongside friendly and supportive cobbers while you learn the age-old art of turning wood.*



Here's the third of the trio of new members.

**SHANE FORSHAW**



***SHANE** started with us on Thursday of last week and has now completed his introductory project. A clear demonstration of quick learning coupled with heaps of enthusiasm. Wow!*

*Skills that Shane learned during that project were extended during his second project*

Next two pages - **Information about the Kawerau Woodfest**

# National Woodskills Competition

National Woodskills Competition, NZ's premier event for wood craft artists, with big cash prizes.

[Woodskills Entry Form 2016](#) 

[Woodskills Brochure 2016](#) 

[Raranga Entry Form 2016](#) 

[Raranga Brochure 2016](#) 

In **2016** there will be over 15 categories for the artistic wood workers to consider:

- Pinus Radiatus
- Carving/Sculpture - Open
- Woodturning - For first time entrants
- Woodturning - Traditional
- Furniture - For first time entrants
- Furniture - Open
- Marquetry & Intarsia
- Toys, Models & Games
- Miscellaneous
- College Students Years 9, 10, 11, 12, 13
- Raranga/Weaving
- Best Local Entry
- Kawerau Rotary Accolade
- Lily Stubbs Memorial Honours Board
- Special Category (Public Vote)



For more information go to:

[www.kaweraudc.govt.nz/Woodfest](http://www.kaweraudc.govt.nz/Woodfest)



**NOTE: Please ensure you read the [Brochures](#) and [Entry Forms](#) thoroughly for any new changes.**

## **First Time Entrants**

This year there are two new categories for first time entrants: ***Woodturning and Furniture***



### **College Students**

There is a change to the College age category with Woodcrafting of any sort being encouraged by any ***College Students of year 9, 10, 11, 12 and 13***. Previous years has seen good levels of junior entries into the competition and the National Woodskills Trust would like to see even more enter this year.

## **Public Vote**

The special category is named '***The Great Gatsby***' with prize money for 1st, 2nd and 3rd placings, and will be judged by popular public vote. Be adventurous in creating anything ranging from the practical to the bizarre that links in with the theme of The Great Gatsby set in the 1920s. The organising committee would really like to encourage entries to be really 'out there' - the more bizarre the better.

Entries can be left totally to the imagination but should predominantly be made from wood or wood products, however they can be painted or left 'au naturel'.



The number of entries will be limited and the organising committee reserves the right to reallocate entries into another category if required.

## **Exhibition Opening**

As with previous years, the Thursday evening (24 Sept.) prior to the official opening of the show will be an exclusive opportunity for sponsors, artists and the public to view the exhibits, the **Exhibition Opening** will also allow potential exhibits to be reserved for purchase once the weekend has concluded.

# Workshop Happenings



*An excellent turning by MIKE*



*DONAL makes his first pen!*



*One of the best ways to learn is to share an idea with a mate.*



*CHRISTINE's determination and patience pays dividends with quality work.*



*More sharing of ideas!*



*ANDRE` has beaten the dust problem.*



***DONAL** gets a few expert ideas about wood selection from **ROBERT***



***COLIN** often provides a helping hand to his colleagues.*



***MIKE** has just completed some of his best work (see picture earlier shown in TT) and now it's tidy up time*



***DYLAN** selected a block of swamp kauri from the rack and in a short time transformed it into a well-designed bowl.*



***MAURICE** carefully wraps his wood treasure in a protective cover - beautiful black walnut vase.*



*New member **CHRIS** gets a few tips from experienced turner, **MURRAY***



And so ends another week of woodturning sessions.... and the tidy up begins.

Remember to put things back in their correct storage places. Putting equipment just anywhere-will-do, except the right place, means gear gets “lost” to folk who have organized minds....thus time gets wasted because stuff can’t be found immediately.

**COLIN** made a rather meaningful comment during last night’s session. He suggested that the turnings that have been produced by members in recent months would hold their own in any woodturning competition.

I agree and with that I urge you to think about entering an item or two into the upcoming Kawerau Woodskills competition.

*Clive*

**GO THE  
CHIEFS!**