Woodturners Guild of Ontario

Interactive Online Newsletter

LOCAL AAW CHAPTER

INTERNATIONAL EDITION

Woodturner **n. A person who enjoys the art and process of shaping wood into various forms**

"ask not what your guild can do for you; ask what you can do for your guild— you get back what you put in"

JULY 2006 VOLUME 2 ISSUE 4

Message from Richard Pikul, President

What does one write about during a warm summer, when most are outdoors during all their spare time or, like me, have a month long landscaping project 'requested' by their persuader. I guess it's a good time to see how many retired readers have time problems similar to mine.

Since retiring, I have noticed that the 'workshop time' I had at first was extensive and I used about 60% of it working on projects that I liked to do and the remainder turning items for sale, to pay the costs of running my workshop. Four years later, workshop time has shrunk from a minimum of 60 hours per week to about 30 hours. At the same time, orders for the items that pay for my workshop expenses (i.e. buying 'stuff', utilities, insurance and taxes) have increased.

Trying to analyse where the time goes could drive one mad. I don't appear to be doing anything different, as nothing new seems to have been added into my daily routine. I have always had to complete projects devised by my 'persuader', taken part in sports for exercise and some volunteer work. So, what happened?

I have taken some time to talk to other retired people. Some have the same problem, some have somehow avoided the black hole of time, while others are desperately trying to fill their day with any kind of activity that does not involve substance abuse or becoming a couch potato.

What happens with time allocation when one retires? I think it can be partially explained by examining the abilities and interests of the person involved.

If one had an interest (other than work life) before retiring, that interest suddenly becomes the primary activity upon retirement. Initially, all the previous 'work' time (including commuting) is spent on activities related to this interest. S l o w l y some of the primary time is eroded by adding related activities, such as education to improve performance, spending time with others with the same interest (communicating over the internet can be a BIG contributor here) and taking extra time to complete projects to improve results. Other items attaching themselves to the schedule include spending more time working on home projects, taking on other family, neighbourhood and personal interests, increased 'vacation' time and the bane of all retirees – "you should do it, you have so much spare time now that you are retired".

I won't even comment on those of you who manage to keep your main retirement interest fully in your schedule without a time erosion problem. Just tell me how you do it. . .

Retirees who did not have an activity outside of work can have a rough time trying to fill their day. I believe that their best bet is to keep on working and retire slowly (if you can) by gradually reducing the number of work hours per week allowing your 'outside' activities to develop. If you can't retire 'slowly', find work that is easy to handle (even if it pays poorly), and slowly retire from it. Poorly paid, uninteresting work would be the easiest to retire from. Use the funds from this 'job' to fuel some outside activities.

I would really like to hear from anyone who has further thoughts regarding the above subject.

I would also like to hear from anyone who has, or knows where I can get plans for a swinging baby cradle that includes a lot of turned components (yes, another persuader project, for my daughter's first baby - our first grandchild).

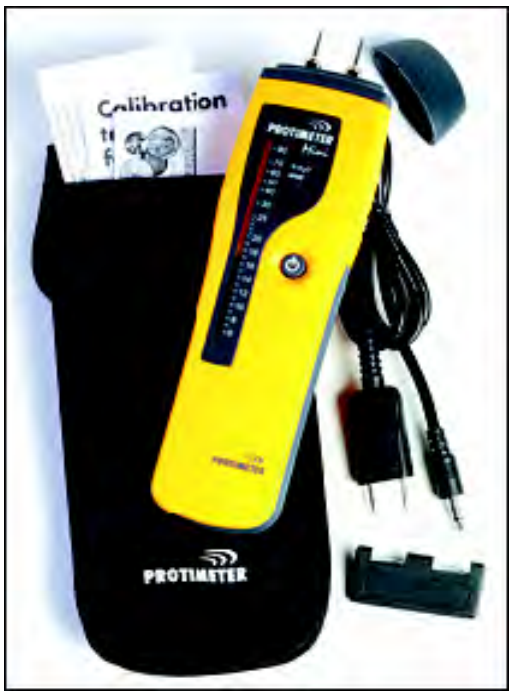
Contact me at: rpikul@sympatico.ca

Inside This Issue

TOOL REVIEW
GE PROTIMETER MINI
by Michael Finkelstein

I turn mostly green wood and I try to rough-turn the wood as soon as I get it, which is usually within a few days of the tree being cut. After rough-turning, I put the wood into a paper bag within a cardboard box, to dry slowly. I check the wood every month and monitor the weight & moisture content. Occasionally, I have noticed that some of this wood was developing mould while inside the box, because (as I discovered later from WGO member Peter Steenwyk) the wood was actually too wet (around 60%) to be sealed in a bag and box. Peter suggested that I let the wood slowly dry in an partially open box or bag until the wood reaches around 40% moisture content, then place the wood into a sealed box. My old meter's range was only from 25% to 6% M.C. (moisture content) , the fragile electrode probes were always bending and breaking on me, and I could never get the probes inserted into small bowls.
I started looking for a reasonably priced moisture meter with the following features;

- Easy to read LED output display
- Very sturdy needle electrodes (probe) that can be inserted into the wood and not bend under pressure
- Durable and rugged design to withstand use in my shop
- Comfortable to hold and ease of use with all turning shapes including small bowls, hollow-forms, etc.
- External probe (hammer electrode) to use in narrow spaces
- Auto shut-off to preserve battery life



The *GE Protimeter Mini BLD2000* exceeds my requirements. In wood, the Protimeter Mini BLD2000 measures the moisture content from 6 – 28%, the level at which the fibers are saturated. The full measurement range is from 6 – 90, but values over 28 are relative; they indicate increasingly high levels of moisture rather than actual moisture content.
The meter provides you with instant moisture readings from 6% to 90% illustrated through 60 Bright LED lights that range in colour from green to yellow to red. The color-coded zones signify the moisture condition of the wood. The **green**, **yellow**, and **red** color-coded zones indicate the following:

- Material in the **green** zone (6 to 16%) is in a safe air-dry condition.
- In the **yellow** zone (17 to 19%), moisture levels are higher than normal but not critical
- The **red** zone (20 to 90%) represents excessive moisture levels. If sustained, red zone moisture levels will lead to decay in organic materials.

Other features include remote pin measurement, auto shut-off, low battery warning, calibration check device and a pin protection cap. The exterior jack plug socket enables the connection of the standard extension probe for easier reading in awkward areas. A Hammer Electrode is also available for penetrating up to 1-1/2" into timber. Spare pins, a pouch and a Timber Calibration Chart (150 species) are included. The unit operates on one 9 volt battery which is included in the package.

The GE Protimeter Mini (Model# BLD2000 Mini) is available online at a special price to the Woodturners Guild of Ontario.
Normal List Price U.S.$220.00 Online special price: U.S.$187 + shipping.
Please go to **http://www.gesensing.com/products/promotions.htm** and enter product code 736821.
Technical information is online at; **http://www.gesensing.com/protimeterproducts**

Woodturners Guild of Ontario Newsletter is managed and published bi-monthly by Michael Finkelstein.
Text in bold type are url-activated or link to a text file. Some graphics contain 'sound clips' that are activated by clicking on the image!
Deadline for articles & ads is the 5th of the prior month.

Articles and suggestions for future editions are welcome, provided they concern woodturning.
We reserve the right to edit, revise, or reject any articles tendered.

WARNING !

Woodturning is an inherently dangerous active activity. Readers should not attempt any process or procedures without seeking proper training and detailed information on the safe use of tools and machines.

TAXUS CANADENSIS - CANADIAN YEW

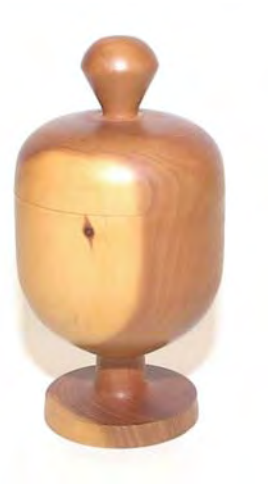
By Richard Pikul

This article about the Canadian Yew is the first in a series about wood species that are not often (if ever) referred to in books and literature about trees. The species I will write about have interesting characteristics that make them useful in woodturning projects. Canadian Yew differs from English Yew (Taxus baccata) in several ways. English Yew is not as close grained and is not generally as brightly coloured as Canadian Yew. English Yew also grows into a fairly large tree while Canadian Yew is basically a shrub with some domesticated cultivars growing to sizes worth turning. Both species are noted for not splitting or cracking easily at knots or the pith.

Taxus canadensis is classified as a shrub, not a tree – don't expect to find any pieces larger than about 20cm (8inches) in diameter – and even that size is rare. Note that only ornamental cultivars reach this size as the native plant rarely reaches 10cm (4inches) in diameter – including bark. If you find a Yew larger than 20cm in diameter, you may be looking at a plant that is actually an English Yew (Taxus bacatta).

The best place to look for this wood is in urban settings that had ornamental Yew plantings 30 or more years ago. The shrubs will, most likely, have overgrown and lost their shape or covered walkways, windows, doors, etc and the homeowner would like to have the shrub removed – but not have the energy for a DIY. This means that you can get the wood for free – if you are willing to remove the shrub. Remember that the homeowner will want the root ball removed to use the site for replanting, and you want the root ball, as it may be the best (and largest) part of the Yew.

Canadian Yew is an excellent wood to turn. With interesting grain and colour (most of the time), very stable knots and best of all, it hardly ever splits or cracks at the pith, even when turned green and allowed to air dry. The wood cuts cleanly and does not dull cutting edges quickly. It sands well, even around knots and takes almost any finish (both penetrating and film) well.



Pictures of two pieces I turned five years ago from partially dried Canadian Yew shown here.

The vase, 100mm x 50mm (wall thickness 2.5mm (3/32")) includes 11 knots, 9 around the base and 2 in the base. The pith runs vertically through the base. I know - it's a terrible picture. . . None of the knots have developed any cracks, although some distortion of the vase shape around the knots developed as the wood dried to ambient moisture levels. Vase finished with two coats Tung oil.

The lidded box, 65mm x 30mm (wall thickness 1.5mm (3/64")) includes only one small knot near the lip and the pith runs from the base, through the stem and up through the knob on top. The lid was made with a suction fit, which did not change as the wood dried, nor over time. The knot has not affected the shape or fit of the box in any way. The box was simply polished, no finishing added.

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TAXUS CANADENSIS - CANADIAN YEW

By Richard Pikul

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These pictures show the typical overall form of cultivated Canadian Yew. The most common varieties have a sprawling, spreading form (pictured shrub is 2m tall, 5m diameter, branches up to 12cm diameter). The spreading varieties can be 'pruned' almost to the ground and recover to a sizeable shrub within three years. This particular shrub was severely pruned last fall on the side shown in the picture. The new growth at the base is already 30cm long and there are still two months left in the growing season.
Some cultivars have a vertical form (picture shows shrub 3m tall, 1.5m diameter, main stems 70mm diameter). The 'vertical' habit varieties are not as vigorous and do not grow as quickly as the spreading forms. Also note that the branches do not form cover as dense as the spreading varieties.

And now for more than you really want to know. . .

Botanical Name: Taxus canadensis: (Yew Family; Taxaceae)
Common Names: Canadian Yew (If du Canada), sometimes known as Ground Hemlock or American Yew
Distinctive features: A native, evergreen, coniferous shrub, 1m (occasionally 2m) tall. Canadian Yew is a cold tolerant, prostrate, spreading plant that grows well in shade, never growing into tree form in the wild. There are ornamental types that do grow more upright, but these are unlikely to be found growing wild. Branches are dense and spreading. Approximately eight species of Taxus are recognized, and all of them are similar morphologically, even though they are well separated geographically. Canadian yew is the only native yew throughout its range.

Leaves: The leaves are flat and needle-like, on short stalks, and persist for several years. The leaf blades are spirally arranged, flattened, often in two ranks, linear, abruptly narrowed into a fine point, 1.2 to 2.2 cm long, with pale green bands on the under surface. The midrib is slightly elevated on the top surface. The leaves lack resin ducts. In winter, the leaves can be slightly reddish.
Fruit/Seeds: Fruit (produced only by the female plant) is a fleshy, red orange, cup like aril, open at the top, surrounding a single seed, (see picture). The seeds are brown, flattened, 4 to 5 mm long. Canada Yew produces seed almost every year, maturing in late summer and autumn.
Flowers: Canada yew flowers in April and May and is wind pollinated. Individual plants are not self-fertile.
Bark: Nearly smooth.
Height / Spread: A low evergreen shrub, 1.2m tall, 2.2m spread. Varieties cultivated for ornamental use can grow to 4 meters in diameter and 3 meters tall. Some ornamentals have upright habits, occasionally growing to 5 meters in height.
Habitat: Common in forests in Northeastern North America, from Newfoundland west to Manitoba, south to Virginia, Tennessee, Illinois, and Iowa. Prefers to grow in humid, continental climates; in cool, rich, damp woods and wooded swamps; on banks; along bog margins; and ravines. Grows on moist, loam soils; best on well-drained silt loam, pH 5.0 to 7.5. Ornamental types common garden accents across Canada and Northeastern United States.
Growth Rate: Less than 30cm (12 inches) per year.

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Product Evaluation of Dura-GRIT "UltraFlex" Sanding Sheets by Richard Pikul

UltraFlex is a steel backed, tungsten carbide grit 'sandpaper'

Yes, you are reading it correctly. Dura-GRIT, a company that manufactures carbide sanding discs, rotary tool cutting wheels and a scroll saw sander/cutting blade also makes a flexible, steel backed, carbide grit 'sandpaper' called "UltraFlex".
I have used Dura-GRIT products in the past, in fact I still have the same Dura-Grit sanding disc and a small hand sander that I purchased about eight years ago. Even though they have been somewhat abused from time to time, they still work at better than 60% of their initial efficiency.

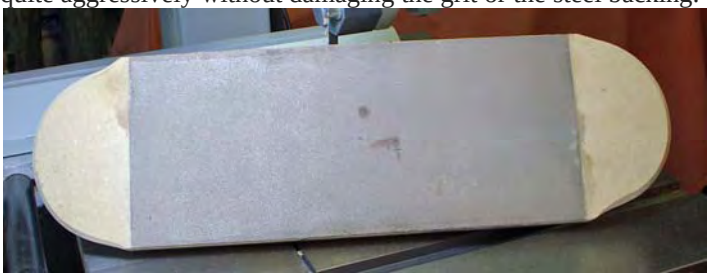
I first saw UltraFlex at a trade show. The only size available at the show was 2.75" x 4.5" (70mm x 114mm). This was too small for my use, so I contacted Dura-GRIT to see what else was available. Three sizes are available; 2.75" x 4.5" (70mm x 114mm), 5.5" x 4.5" (140mm x 114mm), 11" x 4.5" (280mm x 114mm). These come in two grits, 80 and 150.

The largest size was what I was interested in, and I needed both available grits. The price of the large size is about the same as thirty 11" x 9" (280mm x 228mm) sheets of sandpaper that I presently use. My testing indicates that, with occasional abuse, the steel backed UltraFlex would outlast at least 80 same sized sheets of good quality sandpaper. Careful use would extend this life considerably. Another advantage is cleaning the surface. Since the backing is made of a thin steel sheet, any solvent can be used to clear pitch, packed sawdust or finishes, which have been sanded and attached themselves to the surface. The grit can also be cleared with a torch, however this method has it's own fire hazards and should not be employed unless one is outdoors.

Following some considerable time spent in testing the 80 and 150 grit samples of UltraFlex (see test results below), I have concluded that this product is an excellent substitute for any application where sandpaper is glued to a hard backing (round, shaped or flat). It is particularly good for sanding boards used for final preparation of each layer of a segmented turning. The best advantage is that the UltraFlex is glued to a backing once, versus gluing and re-gluing 80 or more sheets of sandpaper.

Testing of two samples of UltraFlex 11" x 4.5" (280mm x 114mm), HT-UF8-080 and HT-UF8-150

1. Taped the samples down on my workbench and ran several pieces of close and open grained wood, both flat grain and end grain, over the two grits. The stock removal performance and finish left behind was exactly the same as the good quality sandpaper I presently use. Cleaning off the sawdust left behind was quite easy with a plastic bristled brush. Some of the harder bits of imbedded sawdust were removed using a crepe rubber cleaning stick.
2. Cut a half-inch wide strip from the narrow end of each piece (one 80 grit, one 150 grit). This gave me two, 4 ½ inch long pieces. I used these to sand some spindle work. The UltraFlex worked well sanding, but it is quite stiff (relative to paper backed products). Since the sheet is stiffer than cloth or paper back sandpaper, it may be particularly good for 'leveling' out minor ripples from tool work on flat or slightly curved surfaces.
3. Turned two dowels, just over 1.4" (36mm) in diameter and 5" (125mm) long. This diameter allowed me to epoxy the UltraFlex around the outside and use the entire 4 ½" length. I chucked each dowel in the lathe (one at a time) and used them as fixed drum sanders. This is a very good use for the UltraFlex. I could sand quite aggressively without damaging the grit or the steel backing. I expected heat build up, but was surprised that the UltraFlex remained quite cool. I assume that the steel backing dissipated heat over the entire surface, allowing the product to remain much cooler than cloth or paper backed products under the same conditions. I expect that using the dowel to sand round coves, or shaped to follow contours of rounded 'V's would also work well.



4. The remaining two large pieces of UltraFlex were glued (using epoxy) to each side of a piece of ¾" MDF board (see picture showing 150 grit side). The ends of the MDF board can be used as handles when sanding segmented layers on the lathe or for clamps when fixing the board to a workbench.
   If a sander longer than 11" long is required, two sheets could be put together to make a 22" wide flat sander, the tiny gap would not affect operation. This method is commonly used with regular sandpaper. ***Continued on page 6***

Product Evaluation of Dura-GRIT "UltraFlex" Sanding Sheets
by Richard Pikul

Continued from page 5

I then fitted a dry, rough turned 6 inch diameter Elm bowl to the lathe and leveled the rim of the bowl using the 80 grit side of the pictured 'sanding block'. I then alternately took off about 1/8" (3mm) of the bowl's rim with the 80 grit side, then about 1/16" (1.5mm) with the 150 grit side until about an inch of bowl height was sanded off. During the entire process, I was using the board with some care and only had to clear imbedded sawdust a few times using a bristle brush, followed by a crepe rubber cleaning stick. During the entire process, I occasionally put the palm of my hand on the UltraFlex surface to check the temperature. The temperature was never high enough to be uncomfortable to touch.

Now for some abuse. I rode the 'sander' with some force (about 25lb (10kg)) right into the corner edge of the Elm bowl. The 80 grit side just 'sanded' out the corner for a couple of seconds, then the wood began to overheat, producing some smoke. I released the 'sander' and checked the surface. The 80 grit had an obvious heat mark, but the surface held. I repeated the test using another portion of the sanding surface with more force, resulting in some minor damage to the grit.

After truing up the edge of the bowl with a gouge to produce another 'corner', I repeated the same test using the 150-grit side. There was some damage to the grit surface (see photo). As expected, the finer grit is more susceptible to damage when subjected to abuse.

5. Clamped the 'sander' to my workbench and used it as a sanding pad, moving wood samples across the UltraFlex. The surface remained cool to the touch regardless of how much pressure was applied while sanding pieces 1" wide and 5" long. Both 80 and 150 grit sides were easily cleared of sawdust with a bristle brush. Sanded some Pine with pitch to clog the grit. The pitch was easily cleared with Acetone.

6. Removing the UltraFlex for another purpose is simple, I just used a propane torch to heat the sheet until the glue let go.

For product details: http://duragrit.com/index.html
Dealer Listing: http://duragrit.com/dealers/index.html#Canada

Contact me at: **rpikul@sympatico.ca**

TAXUS CANADENSIS - CANADIAN YEW

By Richard Pikul

Continued from page 4

Medicinal: Canada yew contains paclitaxel, a molecule in the taxane group, approved for use in breast and ovary cancer treatments and for certain types of lung cancer. In addition, recent clinical studies show promising results in treatments for multiple sclerosis, psoriasis, rheumatoid arthritis and Kaposi's sarcoma, an AIDS-related disease. Other non-cancer medical applications include; coating of stents (anti-angiogenesis) and uses in treating alzheimers, and polycystic kidney disease. Paclitaxel and other taxanes are found in yew roots, bark and foliage. **WARNING: The different components found in the bark, needles and seeds of all yew species are highly toxic. The poison acts extremely rapidly and affects the nervous system. Care should be exercised to prevent breathing dust from any yew wood when turning.**

A number of Native American groups made decoctions of leaves and twigs to treat rheumatism. Infusions and decoctions were also used to treat numbness of fingers and legs, colds, gonorrhea, and as a diuretic.

Uses: The pulp of the aril is sweet, but with a slimy texture, and can be eaten by humans. Please note that although a delicious tea can be made from both Balsam Fir and Hemlock needles, this is not the case with Yew needles. Since there is conflicting literature on whether or not one can make tea from Yew, it is probably best to not do so.

Canada yew is an important component of the forest under story in Northeastern forests, helping to protect the soil and imparting beauty to forest landscapes. The species is used as an ornamental for ground cover and mass plantings, and for parental stock in yew breeding.

The seeds and the dried foliage have been fatal to livestock, but fresh foliage is browsed by deer and moose. The fleshy aril is eaten by numerous species of birds.

Reproduction: Reproduces by seed (almost every year) and vegetatively by layering. The seeds are spread primarily by birds. Natural germination usually does not take place until the second year. The seeds exhibit a strong but variable dormancy that can be broken by combined warm and cold stratification.

Cultivation: Native plants are used as an ornamental but more often used as parental stock for the formation of new hybrids. Numerous horticultural varieties are available. Canada yew is more cold hardy than English yew (Taxus baccata) or Japanese yew (Taxus cuspidata), which are occasionally used for ornamentals in the warmer parts of Canada.

References (Note: these web sites are a font of information about trees in general – check them out!):

http://www.fs.fed.us/global/iitf/pdf/shrubs/Taxus%20canadensis.pdf
http://www.atl.cfs.nrcan.gc.ca/index-e/what-e/science-e/nontimberforestproducts-e/general_taxus-e.html
http://www.worldbotanical.com/taxus_canadensis.htm
http://www.plants.usda.gov/java/profile?symbol=TACA7
http://www.rook.org/earl/bwca/nature/shrubs/taxuscan.html

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The Mentors Respond column will resume in September

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IT's YOUR GUILD - BE INVOLVED !

Share your talent and learn from others at the same time.

Do you have ideas for us ?

Please tell us how you can help - e-mail me at:

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