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October 2022

Hi again, we have managed to have our AGM, we would like to welcome on committee 3 new members: Faith Winchester, Graham Chamberlain and Peter Nalder. There has been lots going on and a quick read of our newsletter will give you an idea.

The MenzShed was successful in obtaining a grant of \$2,238 from the Hutt Mana Charitable Trust. The money will be used to purchase 40 pairs of quality Category 5 earmuffs for the Shed. This will replace our old Cat 4 earmuffs which are uncomfortable and are steadily breaking in half

because the plastic headband is getting brittle. The Cat 5 earmuffs will reduce the noise level much better than the Cat 4 earmuffs.



André receiving the award, on behalf of the Shed, from Nick Leggett, the Chair of the Hutt Mana Trust



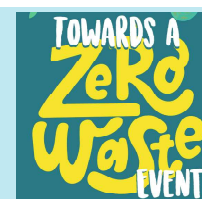
We're 3 weeks out from Spring into Tawa and we're looking forward to participating in the event on Saturday 29 October. We know that you're eager to find out where your stall will be located, what time you can access the event and how you can do that. The finalising of the event layout this week and confirming of the timings - we will

have this information to you by the end of Sunday 9 October. With over 100 stallholders, this isn't a small task, so please bear with us while we get this done. Follow us on Facebook and Instagram. Our social media platforms are a key part of our marketing strategy - and over the coming weeks, Make sure you're following us for all the updates.

Help us get to Zero Waste

Please ensure that you're thinking about what packaging your providing and using - and remember, *single use plastic bags are banned from our event.* **We need volunteers!**

Spring into Tawa needs lots of volunteers - if you can give us an hour of your time on Saturday 29 October, that lightens the load for others





This is a large sign from over at the RSA that we are “refurbishing”- it will gleam when finished. The RSA asked if Menzshed could help them with renovating their sign which is showing signs of ageing. The metal bits are being taken by Jack Fry to his lair to use his “preservation” skills. Below is an explanation from Jack about the process for the metal parts, we will do a follow up when completed.

Brassed Off

I understand that there is some interest in what is happening in the upstairs room in the shed and the treatment of the brass letters from the R.S.A. notice board. The reason that this work is being done upstairs is because the process will involve the letters soaking in solutions for several weeks and the work benches could not be occupied for such a long time.

Photographs taken before the R.S.A. sign was taken down showed corrosion stains running down the painted panel. It appeared that these stains were coming from beneath the brass letters and possibly because the front of the letters had been protected by a light brown coloured paint or a clear lacquer. Fortunately this was not so as microscopic examination showed that there was no lacquer and the light brown colouration of the brass letters was made by patination not paint.

This made the job a lot easier with no lacquer to strip off and the only paint removal was spots of white paint on some of the letters except the crescent shaped piece which had white paint all over its b-back. The paint was removed using a scalpel, the letters were then dry cleaned with a stiff bristle brush and washed in a solution of a non ionic detergent in demineralised water. The reason for using demineralised water is that it is free from chloride ions, which are present in tap water, and it is a lot cheaper than distilled water. The brass letters are now soaking in the demineralised water whilst being checked for the presence of soluble chlorides. Their presence are being monitored using the nitric acid/silver nitrate test which if chlorides are present turn the test solution cloudy. Soaking and replacing the- demineralised water will continue until tests show that very low levels of chloride remain.

Once the tests show that the level of the soluble chlorides are low the baths will be emptied and filled with a solution of sodium sesquicarbonate in demineralised water which will neutralise any free chlorides remaining. The letters will then be rinsed, dried and coated with a clear acrylic lacquer for protection against further corrosion.

A full report of the treatment will be prepared. □ Jack Fry



The new “improving” look to our entrance

The new skate park has started to be worked on, the contractors have cordoned off the road to the shed, treating it as part of their construction site. There is a wire fence the length of the skate park and road parallel to the pool, with a gate across the road that they can open for themselves and also to let the Fire Service get to their depot and us shedders to get to the shed. Our normal gate is wide open, the padlock is now on the contractors gate with the key box repositioned to be on the fence post beside the contractors gate. But the contractors are a bit health and safety focussed



View of our new gate - I'll let Andre explain what he was doing????

(or they were today), so may need to be persuaded to let the cars through – mention disability, gear in the car, whatever you need to get through – although the option to park in Oxford Street and get to the Shed over the bridge has some appeal.

We were informed that it should be finished in about 3 months so we should get used to the new regime by then. □

Our new Electronic “Sign-in”

I hope that most of you have seen the computer screen and keyboard that is now present on the table at the front of the shed. For those of you that aren't sure what this is for, it is to electronically record members arriving and leaving the shed.

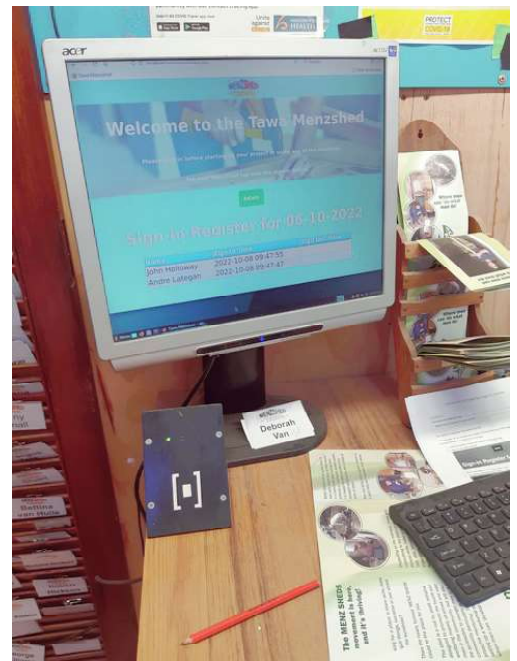
I have developed a website and RFID reader that allows members to scan a tag, that is personal to them, to record their entry and exit times to the shed. The long term plan is to then integrate this system with some of the more expensive machinery to help ensure members are properly trained and know how to operate them.

Supervisors will be encouraging members to use this system.

I have attached instructions on how to register tags against members.

If you have any questions please reach out to myself and I will try and help you. Failing that one of Johns should be able to help as well

Thanks, Ben. □



After Mondays early finish, myself and Peter M went to the effort of installing the fire-proof casing to house the all battery chargers.

It currently accommodates the two AEG charging stations mounted to the wall and has the Ryobi at the bottom.

For those who have been to the shed on Tuesday, you might have noticed that the multi socket is being suspended by Velcro. This is a temporary solution as we ran out of time. Peter will be getting a better surge protection multi socket that will be fitted to the wall beneath the AEG stations.

See photo right.

Action: We now need to find a new place for the Festtool Rail guides.

The Black & Decker units we have stored on one of the shelves opposite for use as backups. We felt there were plenty of devices now to use and adding the B&D chargers would make it look cluttered. Hope there is no objection to this. Thanks, Ben. □



Tena koe Petrus
RE: Menzshed Tawa Incorporated

STOP PRESS

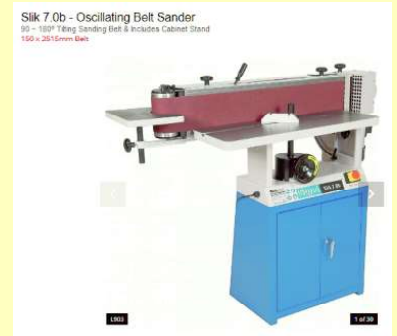
Congratulations. On behalf of Lottery Wellington / Wairarapa Community, Menzshed Tawa Incorporated has been approved a grant R-LC-2023-213377 of \$3,049.00

It was noted that your request aligns with this committee's priorities and demonstrates community benefit. The Committee acknowledges the time and effort that went into your request.

You will need to log in to the Grants Management System to view full details of the grant, additional terms & conditions and any reporting requirements associated with the grant.

Naku iti noa, na,
Tanja Van Huyssteen
Committee Coordinator
email: Tanja.VanHuyssteen@dia.govt.nz

STOP PRESS



We have been restoring/repairing a few small toys. For those wondering here is their story.

From Jan Jones

I have been accumulating resources for schools and early childhood centres in the Pacific Islands for the last 15 - 20 years. I had been a Kindergarten teacher so started off collecting for the preschool age group but soon realised there was a lack of resources for schoolage children as well.

My late husband, Alun, applied for a teaching position as Head of Maths at Tereora College in Rarotonga in 1981 and I was also interviewed before we left NZ so I asked if there was any chance of teaching in an early childhood centre but no - I was told they had their own teachers. So I did not take any ECH resources, but books for me to read and crafts to do, and imagined I would be sitting under a coconut tree reading or doing the crafts I had taken to keep me busy.

But as soon as we moved into the house allocated by the government, there was a knock on the door and several committee members from Blackrock, the English speaking Preschool, were at the door, saying "We hear you are a Kindergarten teacher, when can you start?" If only I had taken some resources from NZ! I said I would be happy to work part time so I was able to job share with a NZ primary trained teacher.

I discovered most of the local preschools had very few resources and very little money to buy any - if they had been able to buy any there, as generally the local shops catered for tourists and had basic food supplies and by our second year there, videos for hire, but very little in the way of educational equipment. Blackrock was generally better off as they catered for a few local children whose parents wanted them to learn English plus a number of children from NZ and a wide variety of other countries whose parents were on contracts working in the Cook Islands and had sometimes donated resources. Working there gave me an opportunity to get to know local families and in particular Louisa Henry whose husband became Prime Minister while we were living there. Most of the local children were brought up speaking Cook Island Maori but as they grew older and started secondary school, most of the exams like NZ school certificate at that time, were in English. Louisa

was a great help speaking in their local language if they did not understand my English and giving the children opportunities to take part in Cook Island dancing, something they all loved!

We went there on a 2 year contract but really enjoyed the lifestyle so stayed 3 years, by which time our oldest son was about to start secondary school, but we were able to return for a brief holiday about 15 years later. My husband had been teaching at the Correspondence School in Wellington, liaising with some of the teachers in the outer islands in the Cooks, and he had an opportunity to visit them, so I was pleased to be able to go as well. While Alun was doing his official visits, I would try and (unofficially) find an Early Childhood Centre to visit. This really showed me the lack of basic resources we often take for granted here. The first island we visited had paints provided by the Ministry of Education but no brushes, so the children were using sticks for their paintings. Then the next island we visited, an hour by small plane from this one, had paint brushes but no paints!!

Later, when I was working at the Correspondence School in Early Childhood, they were going through the books and discarding the ones that were "too old or too scruffy" so I knew just where to send them - old or scruffy books were better than no books! At that time the shipping company would take cartons of school resources free of charge so I was able to put money into the purchase of new good quality books as well as some secondhand from book sales, etc. and also stationery items, wooden jigsaw puzzles and educational games, many that I had made, as we used to do for the distance families we worked with at the Correspondence School.

Shipping to the Cooks is no longer free as the shipping company has now been taken over by a different one but sometimes I have had help with a Rotary Club, especially Hutt River Rotary who send consignments to Tonga once or twice a year. They mainly send resources for secondary schools so are happy to include my ECH and primary school resources. I do not mind which Pacific Island they go to, as over the years we have been fortunate to visit several while on holiday and they cannot usually buy educational resources on these isolated islands so I have been happy to help. Over the years I have been able to send resources to Fiji, Vanuatu, Niue and Samoa as well as the Cook Islands, which will always be a special place for me.

If anyone hears of people visiting one of the islands or better still, sending a container, I would be pleased to contribute resources for a school as I keep on collecting. It certainly takes over my life at times, but having seen the lack of resources first hand I am happy to help when possible.

Sorry it has taken me quite some days to send the details requested. It has ended up much longer than I anticipated! I am sending this so the members of the Tawa Menz Shed will know what happens to the repairs they have been kindly working on. I really appreciate all they are doing and it makes such a difference having puzzles and wooden toys all complete ready to send without any missing pieces. Many thanks to you all for your help! Cheers Jan ☐

[Firewood For Sale.](#)

We're now coming into Spring and it can be very cool at night and "fresh" in the morning, so its time to check your firewood stocks. The Tawa Menzshed are again promoting their fundraising project to sell banana boxes of firewood to assist with the shed development and as a service to the community.

Can Menzshed members please help spread the word to neighbours and circle of friends who may have wood burners. Banana boxes of firewood sells for \$10.00 each which includes delivery within Tawa. The firewood comprises cut-up pallets, and off-cuts from other Menzshed activities.

To place an order please contact::

Richard Herbert on 027 445 5942, or email herbert.r@xtra.co.nz
Payment either on delivery or to the Menzshed bank account:
02-0552-0040123-00. Please reference "your surname" "firewood" "your address" ☐



This is third and last part of Jacks article about the properties of wood.

Stability

Unless wood is kept in a controlled environment of a constant humidity it will swell and shrink gradually on a seasonal basis without creating too many problems. However, some species of wood are very quick to respond to short periods of wetting or drying or high or low humidity changes.

The short term stability or resistance to change is shown in Table 3 where heartwoods are rated against the sapwood of Rimu100. The type and permeability of any surface coating will have a significant affect on those short term stability figures.

Table 3A

Percentage shrinkage from intersection point to 12% and short term stability of heart wood of some native species.

Specie	Intersection Point	Tangential Shrinkage	Radial Shrinkage	T/R Ratio	Short Term Stability
Silver Beech	30	5.7	3.1	1.9	67
Kahikatea	31	4.1	2.3	1.8	71
Kauri	26	4.1	2.3	1.8	62
Black Maire	22	5.4	2.6	2.1	67
Matai	24	3.5	1.9	1.8	52
Rewarewa	34	9.5	3.8	2.5	162
Rimu	30	4.2	3.0	1.4	76
Tawa	30	3.9	2.1	1.9	105
Totara	28	4.0	2.0	2.0	57

Abnormal shrinkage and stability

The types of shrinkage and values given so far are based on the heartwood of normal, non refractory, wood but refractory reaction wood is occasionally met where abnormal shrinkage occurs often with considerable longitudinal shrinkage. Dry wood seemingly stable when further machined or dried suddenly distorts causing considerable problems. The problems of reaction wood are due to stresses being developed in the tree during its growth. Special cells are developed to withstand these stresses. Often during the initial stages of converting the log into timber and drying it, the pieces remain stable but further machining can cause an imbalance and the board springs apart or grips the saw blade.

Reaction wood occurs as tension wood in softwoods grown on steep hillsides or in very exposed situations where the tree struggles to grow upright. Compression wood occurs in hardwoods in or near branches where heavily laden branches have to be supported.

An experienced sawmiller can often detect reaction wood where the heartwood is off centre, there is an abnormal amount of resin or the piece is very dense. Once sawn and dried these signs are not so evident. When using branches, whorls, heavily distorted grain pieces, it can sometimes be a gamble as to whether a stable piece will suddenly distort or crack.

Case hardening

The earlier discussion on drying assumed that the wood dried uniformly with a gradual change of moisture content between the inner and outer layers. Some species will permit this, others will not as the movement of water through the cells and their walls can be impeded as cell wall linings collapse, or the small interconnecting holes or pits close.

The consequence is that the outer layers dry, shrink and become rigid whilst the inner layers are still wet and swollen. Eventually those inner layers dry and attempt to shrink but as they are restrained by the rigid outer layers enormous stresses develop. The result is that sometimes the large cavities are torn in the inner layers,

this is called honeycombing, or a dry and seemingly stable piece will suddenly distort on further drying. The problem of case hardening was very prevalent with Rimu grown on the West Coast of the South Island where it is moist, and dried in Canterbury's northwesterlies. To my knowledge one local manufacturer had many problems with his dry joinery once it had been exported to an even drier Australia. Case hardening can be detected by cutting out a thin cross section slice through a board some distance from the end. A short edge and most of the centre of this slice is removed to form a square "U" shape. If case hardening is present the arms of the 'U' will either converge or diverge on further drying.

Solutions

So far my paper has been a tale of woe sufficient enough to deter some beginners to woodwork. Fortunately some New Zealand woods dry evenly with minimal shrinkage and are very stable. This is one reason why these timbers are classified as commercial timbers. Although other species are classified as non-commercial because they do not produce wood of marketable sizes it could also be because they are prone to distortion and shrinkage problems

Careful uniform drying is a prerequisite for most species of wood. Excessive moisture loss through the end grain is preventable with end caps of metal, bitumen, paint, grease and wax. Excessive drying through the side grain can be prevented by leaving the bark on small diameter pieces or coating the sides with wax. Packing the piece of wood in damp sawdust can slow down the rate of drying.

Air drying

If there is a reasonable amount of wood to be dried in the board form it can be stacked with small spacers between each layer to allow a flow of air. The stack's top and sides are covered to protect it against the rain and sunshine allowing only air to pass through the walls. The stack can be weighed down with heavy non-staining weights which will restrict some distortion. The position of the boards can be arranged so that the weight restrains any tendency to warp in a certain direction. Air drying however will only dry the wood down to an equilibrium moisture content with that of the surrounding atmosphere. This is generally outside, and will not protect the wood against northwesterlies.

Kiln drying

Kiln drying has been condemned by some people as being an unnatural way of drying wood. But this is unfair as kiln drying if done properly is quick but gentle giving uniform drying and drying down to any required E.M.C. whether for the Malaysian jungle or the Sahara desert.

Large commercial kiln driers are operated using wet and dry heat. Schedules have been published for many commercial species that specify humidities, temperatures and times.

Smaller cheaper methods are available that use dehumidifying equipment. If Woodworking Guilds have sufficient funds and space they should consider purchasing one of these dehumidifiers for their members' benefit.

Whatever method of drying is used the weight of the wood should be checked frequently to ensure a gradual drying process and determine when the E.M.C. has been reached. Better still, if there is sufficient material regularly measure the moisture content.

Bulking agents

Bulking agents are designed to replace the water in green wood so that on drying very little shrinkage occurs, Polyethylene glycol (P.E.G.) is a bulking agent which is commonly used. It is non toxic but expensive. It is ideal for greenwood turning when the object will retain its shape on drying. When dry it can be finally finished and coated with certain surface coatings. It can absorb water in high humid situations and sweat if the incorrect grade of P.E.G. is used.

Other Methods

Many other methods have been or are being tried. Too many to describe in the time limit. Some are used commercially in the food industry, some are used to save archaeological objects that have been found in the sea, lakes and swamps where bacteria has attacked the cells and moisture contents can be as high as 1000%,

These objects can collapse within hours from the commencement of drying. One interesting line of research is the use of sugars as a bulking agent. This may save washing up as we could eat our candied wood platters as a desert. So research continues hopefully to solve our problems tastefully.

Recommendations

Having told you of some of the major problems, many of which are still not fully understood, and having told you of some of the solutions that don't always work, I suppose that I should come up with a recommendation that will guarantee success.

If you wish to produce an object that will remain stable in use you should select a specie of wood that has good short term stability such as Red Beech or Totara. Ensure that it is dried to the anticipated E.M.C. Check for any abnormal density straight grain and case hardening. Once it has been machined it should be immediately sealed with a surface coating of low permeability. The result could be a wood that is difficult to turn and very bland to look at.

As a gambler, aren't we all, who looks for exciting figures in wood I would take a chance, experiment with all sorts of species, attempt to dry it or consolidate it by the various methods described, but accept and understand the failures should they occur.

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