# Ted's News March 2021

Is spotted Gum the Elusive Cure for Covid

Pre-release Copies of My New Guide - Timber in Playground Available

Case History - Ports North Playground - Cairns

Timber Resources

Timber Consultant

Is Spotted Gum the Elusive Cure for Covid?



Happiness is a relative term I have to admit but, for a pig, it is when the food is at one end of the sty and the waste is at the other. Over the years we supplied a lot of ironbark piggery slats which really surprised me. Concrete and steel were far easier for the farmer. A brother-in-law who was one of Australia's leading guru's on pigs told me that in actual fact the bacteria loading was much lower on timber than on the alternatives. This is counter intuitive I know. So, when my friend Aki San of Kurata Co in Japan contacted me and asked if I had anything about the anti-bacterial properties of Australian Eucalypts I knew there was something in it. As their spotted gum was being used in facilities such as elderly care facilities and kindergartens. her customers are concerned about the danger of pathogens such as *Escherichia coli* and *Staphylococcus aureus* that may cause corona and food poisoning. After all, the anti-bacterial properties of Eucalyptus oil are well known and if it could be documented was a great promotional aid.

Unfortunately, I could not track anything down so the ever-resourceful Aki san simply took some to the Shizuoka Industrial Research Institute for testing. Under the guidance of their specialists, they tested the resistance of Staphylococcus aureus and E. coli in relation to spotted gum. The results were, that these organisms disappeared after 24 hours. Kurata Co now sell spotted gum with a logo espousing the antimicrobial properties of spotted gum. Note that the JIS Z 2801 below the logo relates to the test method is designed to quantitatively test the ability of hard surfaces to inhibit the growth of microorganisms or kill them, over a 24 hour period of contact. The **JIS Z 2801** procedure has been adopted as an International Organization for Standardization (ISO) procedure. Now we



JIS Z 2801 抗菌実験済み素材

just have to find out how we can bottle spotted gum and have it tested on the dreaded Covid to see if it works on a virus too.

Asides: That piggery slat worked on the same principal as Deckwood with its tapered sides. I did not have the technology to make them economically so I dropped them but owners loved them. Also, someone I know that ran a large piggery in our valley joined one of the international relief organisations organising refugee camps. He organised the camps he was involved with on the principals of a piggery, food one side, waste the other and never the twain shall meet. The health in his camps improved dramatically.

### A Striking Spotted Gum Fence in Japan



When obtaining permission to use Aki sans test results she sent me images of a recently erected 70-metre-long fence built at Yokosuka Children's Garden" in Kakegawa City, Shizuoka Prefecture. in Japan.



Notice the craftmanship and care in design that has gone into this fence. It is all prefabricated with CNC equipment and there is not the usual back. Both sides are the "front" Notice the quality that it is possible to purchase.

## Pre-release Copies of My New Guide - Timber in Playgrounds Available

The guide to timber in playgrounds written by myself and senior respected Architect Ralph Bailey (The Architect behind Frew Park) is all but ready, with just a few small points to clear up, so we can now sell advanced copies. There should not be a playground designer, manufacturer, installer, inspector and owner in the country that does not have a copy of this book. If you are an asset owner, this guide will allow you to purchase well and avoid thousands of dollars in maintenance and premature replacement costs simply by having the tenderers submit the completed design check list. This same checklist can also work as part of your tender documentation.

Frankly, some of things we encountered were just frightening. We were appalled at the ignorance of timber and the effect of the Australian climate that some manufacturers



had. After one visit, Ralph reminded me that the purpose of this book is to save lives. Here is a case history of a playground that is done very well.

## Case History - Ports North Playground - Cairns

Lessons: Timber playgrounds can succeed in the tropics, The importance of a playground certifier

**Architect:** <u>CA Architects</u> **Engineers: Aarup** 

Playground certifier: <u>CCEP</u>

Timber supply: Ted



The Far North Queensland Ports Corporation Limited, trading as Ports North, is a Queensland Government Owned Corporation responsible for the development and management of a number of ports in North Queensland. Its operations and facilities are vital to the economic development of the regional centres they service and the State's tourism and export performance, and none more so than the Cairns Cruise Liner Terminal.

When the decision was made to build a playground adjacent to the terminal and a large fig tree which was a local landmark, it required a design solution that was world class befitting its internationally highly profile site and the natural beauty of the location. To prevent the aesthetics of the site being impacted adversely, it was determined that the site needed to be unfenced. Wisely, it was realised that because the site was in the tropics there could be no compromise in the quality of the material and the detailing. Construction was completed in 2012 and the playground has been an overwhelming success.



The decks generally follow the advice in this guide for best practice in construction with 120x35 mm decking laid on 75 mm joists with 14# screws installed in a staggered alignment. Posts are installed in stainless steel stirrups and all the fasteners are stainless. The playground is shown during construction in Figure 121 and note the use of conventional fasteners, not tamper resistant.

Effective tamper resistance was planned though and achieved in a very cost-effective way by simply screwing timber blocks over the fasteners. The species used would have been one of those preferred by Ted in Table 6. The treatment is Tanalith E (copper azole) and this combination in association with good detailing has been successful. The asset owner reported that only two pieces of timber have been replaced in nine years and that the playground is still in excellent condition in 2021.

The costs associated with running this playground are much higher than would be expected over one sited in a suburban park and can be contributed to some extent to the high public use of the facilities. Ongoing maintenance and operational aspects of the location are challenging, and construction design should consider these factors. Asset owners contemplating similar playgrounds must ensure that the operational team and management have factored these costs into their budget.

The asset owner stressed the importance of having the playground certifier involved from the very beginning. His role in bringing the different professions and suppliers and trades together into a single certificate was critical.



#### Need a Timber Consultant or Expert Witness?

I have over 40 years' experience in the industry and can assist you with many of your timber needs.

**Inspection** – I can assess timber products on their performance, fitness for purpose or cause of failure. I also examine whether best practice was used in design and construction. I have recently completed inspections on boardwalks, bollards, support beams and external timber furniture.

**Grading** - Quite literally, I have written the book on the subject. Recent experience has shown that up to 30% of timber supplied may not be to grade.

**Design** - I can provide detailed technical drawings and advice. I can also review already prepared drawings.

**Reports** - I have authored many books on timber and can prepare a report providing recommendations and practical instructions on to how to rectify issues.

Please note as I am now employed a Senior Timber Consultant with the firm BCRC all large and complex consultancies and requirements for an expert witness will be handled in conjunction with them. Existing consulting arrangements remain unchanged and I am also available to assist on small projects. For more information see www.bcrc.com.au

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