



Final results from H3 above ground decay test at Innisfail

By Laurie J. Cookson



A major research project set up while at CSIRO found that of 12 variations the most effective H3 decay tests were the ground proximity, deck-on-ground, and embedded tests. The embedded test at Innisfail continued to 7.6 years, and a summary of the results is shown here. A range of treatments in radiata pine sapwood blocks 200 x 35 x 35 mm were tested, as well as untreated spotted gum heartwood. The uptakes for some treatments aimed for H3, and quarter H3 retentions, based on solution uptake. Retentions according to subsequent chemical analyses are shown in the table. A mistake was made with the ACQ treatment, so it is called AChQ (high quat). Most test specimens were exposed unpainted, while some were partially painted (not on their water-trapping ends). Test specimens were probed with a knife and given a rating on a scale of 0-8 where 8 is sound and 0 is decayed.

Spotted gum heartwood, and the higher retentions of copper chromate, LOSP azoles, Tanalith E, CCA and AChQ all gave ratings of 6.1 to 7.1 (light-moderate to light decay) after 7.6 years. Therefore, our main H3 listed preservatives were generally similar in performance. Copper naphthenate dropped away from the leading pack after the four year inspection. Decay rates at Innisfail are several times faster than would have been obtained in Melbourne or Sydney.

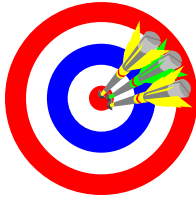
| Treatment or timber | Painted | Mean retention % m/m oven dry wood | Mean rating | |
|-----------------------|---------|---------------------------------------|-------------|-----------|
| | | | 4 years | 7.6 years |
| Water | N | 155 (by uptake) | 0.4 | 0.0 |
| Water | Y | 155 (by uptake) | 0.3 | 0.0 |
| HFK | N | 25.3 (by uptake) | 1.5 | 0.0 |
| HFK | Y | 25.3 (by uptake) | 1.5 | 0.0 |
| Boron | N | 0.293 elemental B | 0.6 | 0.0 |
| TBTN quarter H3 | Y | 0.042 elemental Sn | 3.0 | 0.1 |
| TBTN quarter-H3 | N | 0.042 elemental Sn | 4.1 | 1.1 |
| AChQ quarter H3 | N | 0.048 Cu + 0.232 DDAC | 4.4 | 1.4 |
| Azoles quarter-H3 | N | 0.014 teb prop | 5.4 | 1.4 |
| AChQ quarter H3 | Y | 0.048 Cu + 0.232 DDAC | 5.2 | 1.7 |
| CCA quarter-H3 | N | 0.085 | 4.2 | 2.9 |
| Azoles quarter H3 | Y | 0.014 teb prop | 6.2 | 3.4 |
| CCA quarter H3 | Y | 0.085 | 5.2 | 3.6 |
| Copper naphthenate H3 | N | 0.097 elemental Cu | 6.3 | 4.5 |
| Spotted gum heart | Y | - | 6.4 | 6.1 |
| Copper chromate H3 | N | 0.376 | 7.4 | 6.2 |
| Azole H3 | N | 0.041 teb prop | 7.8 | 6.4 |
| Tanalith E H3 | N | 0.201 (Cu + teb) | 7.5 | 6.6 |
| CCA H3 | N | 0.361 | 7.6 | 6.7 |
| Spotted gum heart | N | - | 7.4 | 7.0 |
| AChQ H3 | N | 0.250 Cu + 1.057 DDAC | 7.7 | 7.1 |

For details of earlier inspection see:

Cookson, L.J. and Carr, J. (2009). Accelerated H3 above-ground decay trials in Australia. Internat. Res. Group on Wood Protection. Document No. IRG/WP/09-20411.

Cookson, L.J., Page, D. and Singh, T. (2014). Accelerated above-ground decay testing in Australia and New Zealand. Internat. Biodeterioration & Biodegradation 86: 210-217.

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... and from TPAA Secretary ...

... from TPAA President ...



"A number of TPAA members attended the 'Quality Control & Assurance for Wood Preservation', workshops, back in August. These Workshops were put forward by Phil Evans, who is heading up the, 'National Centre for Timber Durability and Design Life'."

"There were three key speakers, presenting views and outlines on Quality systems being used in Europe, USA and NZ."

"I followed up with Phil Evans and Niels Morsing to discuss where they saw this all going and if TPAA should be playing a part. I also had a follow up conversation with Ric Sinclair and Chris Lafferty on the same issue. It would seem to me that FWPA do have an agenda on Quality Programs in relation to Timber Preservation. Whilst this is commendable, it is imperative that TPAA be a part of this development."

"Whilst not the TPAA representative, I have attended the most recent TM-012 Meetings. The development of the new Standard, AS1604, is a very large undertaking."

A full agenda of items kept Councillors busy at the Council Meeting and AGM held in Brisbane on October 19th. As usual, Secretary Jack was delegated and encouraged to proceed with several projects for the benefit of the Association and the timber treatment subsector.

Jack's rant ... You might be surprised how hard it is to keep complaining. I have just about run out! In previous rants, I have talked about treated wood quality, lack of knowledge about our product and member involvement in TPAA. So this rant is not really a complaint!



A couple of years ago when we set up the current website, I was shown how to access Google analytics so that we could get some idea how the TPAA website was going. The result is really interesting.

Between 18 and 24 October, just seven days:

- FAQs were visited **556 times** (wow!);
- the Timber Treatment page was visited **168 times** (also not bad for 7 days);
- the Publications tab was visited **15 times**;
- Treatment Plants – **15 times**;
- About (TPAA) – **12 times**;
- Contact Information – **12 times** and three treatment plants had their web details viewed a total of **25 times**.

Google Analytics claims that over the same period the following was the source of the visits:

- 87% of the queries came from within Australia
- 3.3% were from New Zealand
- 1.5% were from Nigeria
- 1.3% from USA and
- 0.9% from Malaysia.

In terms of activity (another website term)

- Monthly visits – 3,400. I am not sure which month – this is a statistic straight off Google Analytics
- Weekly visits – 744 and
- Daily visits – 86