

Splitting summary 2017

2017 was a year of change. We stopped using OATHs (Original Australian Trigona Hive), which were a 19mm plywood OATH enclosed in a foam box and moved to a new design concept, the KOATH, (the Ku-ring-gai Original Australian Tetragonula Hive). <http://bit.ly/2DiOHeA>

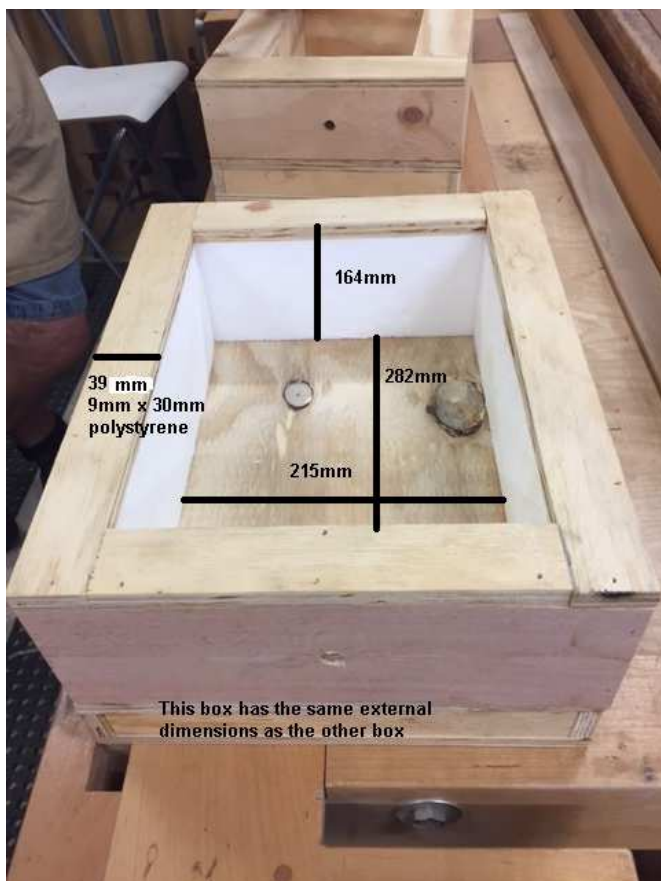


The KOATH can be easily retrofitted to existing OATHs and provides improved protection from heat. It also dispenses with having to use the foam box cladding. The foam boxes are expensive and have a tendency to collect water (which can kill a hive). Annoyingly bees would build in the void between the OATH and the foam box making splitting very time consuming.

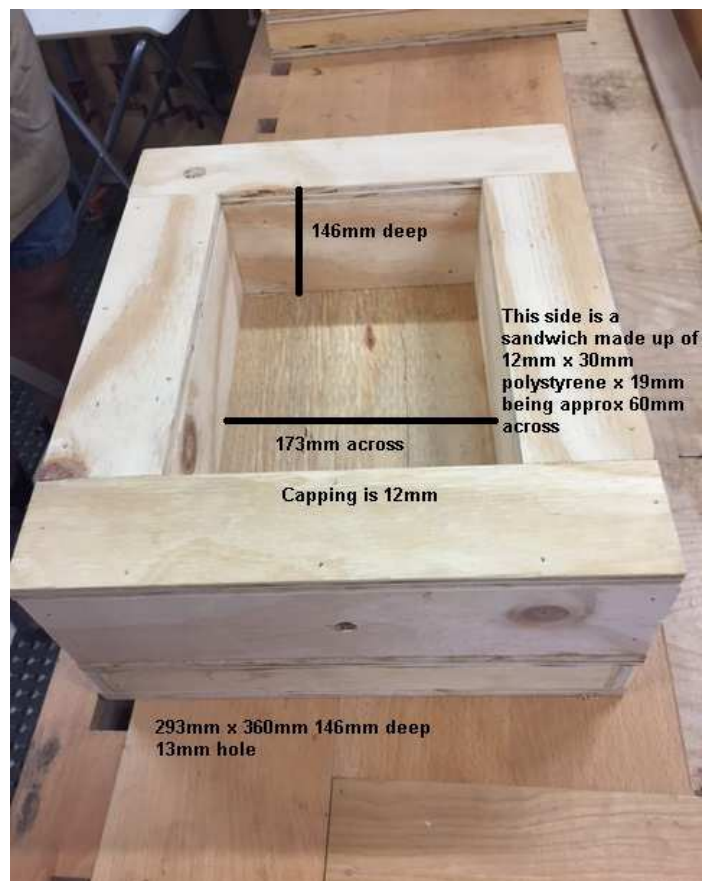
The KOATH is made with plywood panels that enclose 30mm foam like a sandwich. This increases the cost of a hive from \$30 to \$100 but is a much more sustainable product. The improved thermal values of our new hive make them better prepared for the increasingly common extreme high temperature weather events

It was important that we be able to easily retrofit our existing hives, as lot of exciting new hive designs are impracticable for us due to that issue, the retro fitting had to be fast and not be too expensive. Importantly the KOATH has the exact internal dimensions of the OATH.

We now use 13mm irrigation tubes at the entrance of all split hives, ala Tony Goodrich, to beat the scourge of Small Hive Beetle (SHB). The 1.67mm mesh and the mini tents that we used last year after splitting did not eliminate losses to SHB, however with the use of the irrigation pipe we have achieved almost zero losses to SHB and Phorid Fly.



This is the Retro KOATH where split OATH bottom boxes are placed



This is the top of the KOATH that fits on to a Retro KOATH

The only losses to pests this season occurred to hives that were extremely weak or to ones in foam boxes that were victims of extreme temperatures

The logic behind the pipe: In the wild a pipe defence is relatively common



Kelvin Kooger sent me this image of a Malaysian stingless bee hive entrance



An Australian *Austroplebeia* sp. hive entrance



To the left is pictured a 13mm irrigation pipe fitting next to a 19mm hose



Pipe and hose Joined together creating the entrance to a KOATH

Preparation for the 2017 season

We still had a lot of foam boxes to prepare, but this year to add to the joy, we had to paint the KOATHs



Painting the KOATHs required a primer and an exterior weatherproof paint. This definitely caused issues and we ran out of time to finish the painting before we started splitting. Each KOATH required 2 coats of paint, had to be moved from the Mens Shed to the WildThings “workshop” and then stacked. Unfortunately we ended up not painting all our foam boxes due to time constraints.



Bits and bobs:

To minimise water damage we used an expensive transparent flashing tape from 3M that cost \$60 per 22M roll, the only good news is that we could cut the tape in half to economise. This tape is fantastic (#B0042-3589) but to date we've spent over \$1,000 on it. To try and cut costs I found some cheaper transparent tape available through Tapes Online (all Weather Tape) but discovered to my horror that it wouldn't stick to timber, however it adhered to foam which meant we could still use it.

The plan this year was not only to use the pipe but to make the hives waterproof. This meant that the foam boxes had no drainage holes, had the lid sealed with one of the better tapes (avoiding using masking tape which has a tendency to leak) and using putty to seal the entrance around the base of the pipe.



This honey collector foam hive demonstrates current waterproofing "technology".

Naturally we had to buy 1200x13mm beige barbed joiners. The new design has an entrance hole in the top and bottom sections of the KOATH. This gives the bees the opportunity to choose an entrance and possibly aid them with air flow, something that wasn't possible with our previous foam boxes enclosing plywood OATHs

When we split we turn the top OATH box upside down and insert it into a new retro KOATH with a non retro KOATH box on top. The existing bottom OATH is similarly inserted into a retro KOATH, again with a non retro KOATH on the top



A beautiful advancing front



A KOAH in situ

	TOTAL HIVES
Hive checks	344
Hive splits	276
Hive sales	100
Free hive deliveries	100
Hive deaths from 2017 splitting	10
Collaboration with Syd Uni	14
Replacement hives from 2016 season	15
Remaining hive stock	37



This hive was split last year but could easily wait for another year.

Stats

WildThings requires a large amount of administration to co-ordinate the splits and the splitting teams. The materials for the splitting season take a long time to prepare and over 10 people are involved in all aspects of this program.

The sales allow up to 100 hives to be given free to the residents of Ku-ring-gai Council with all funds from sales returning to the WildThings program.



A splitting box with all the goodies

In summary:

Over 300 KOATHs have survived 2 x 44+ degree days in Sydney, with several "Foamies" not surviving.

The use of the pipe has largely eliminated the loss of hives to SHB.

KMC turns the top of the split hive upside down and knows it to be a sound technique, especially as once turned over it stays as a bottom. This stops slumping and honey pooling on the brood.

The Sydney splitting season to date has been Oct to Dec, however splitting a hive every 2 years means we will move the season forward to September.

80% of hives inspected were ready to be split, the ones not ready were ones split last year. After 2 years our experience is that the overwhelming majority of hives are ready to be split or are dead.