



The Managed Mentoring Program on getting started in beekeeping.

Managed Mentoring



Managed Mentoring

Recovering from a Deadout

Lesson | Deadout Recovery



What is Covered in this Module

Deadout Recovery

Reusable Resources

Resources to Discard

Storage and Handling



Recovering after Deadout

□ Can you use the equipment?

- *THE ANSWER IS YES, but with stipulations*

- The state of the equipment and resources will likely be viable for reuse in almost all situations.
 - Occasionally you might not wish to recycle based on what was found, but this is not typical, and the following slides will review how to examine what you can reuse
 - Example: Any frames that have come in with a mouse family that somehow took up residence in a colony would result in the frames they came into contact with being discarded

- *Stipulations*

- Some frames should not be carried forward – reasons will be covered



Look 'from a distance'

□ Review the equipment and frames holistically

- *Is the equipment sound?*
- *Is the quality of the comb viable for service?*
 - If the comb is really old, this is a good opportunity to cull it and go with fresh comb for the restart
 - Get rid of any comb that came from a Nuc you purchased – if you have that situation
- *Cull all brood comb – More on this shortly*



Consider Winter

□ Combs were likely subject to cold

- *Hives are subject to winter days and nights*
 - As such, any 'nasties' that you would typically kill off by placing the comb in a freezer have already been eradicated.
 - The key would be multiple sub-freezing days in succession.
- *This doesn't mean that there couldn't be dormant viruses*
 - Some elements can hold the viruses and for this reason – it would be advisable to cull anything doubtful.
 - Example – Larva that was in development may hold viruses... and the cold may have preserved them. More guidance on this shortly



Frames with Capped Honey

Reuse or Harvest

□ Reuse or Harvest*

- *Capped honey can often be held for future colonies*
 - Capped honey is typically not a concern to exchange between colonies and can be reused
 - You can put it in surviving colonies if they need some resources coming out of spring.
- *Harvesting (honey only please)*
 - Some make lemonade out of lemons, and harvest residual honey
 - * Do consider if you fed the bees in the fall, then ensure you are harvesting honey, *and not capped sugar solution* fed over the season



Crystallized Sugar/Honey

Reuse

□ Safe for Reuse

- *Sometimes bees leave behind crystallized sugars in cells*
 - This is from late season feeding or un-ripened honey that dries out
- *This is safe to give back to the bees*
 - They will process the sugar or clean out the cells if they do not want it.



Pollen

Discard

❑ Discard

- *In most instances it is recommended that you discard frames with old pollen.*
 - While it seems like a viable resource, and it likely is perfectly suitable to feed back to the bees – the recommendation is to discard it*
 - Old pollen may harbor contamination that led to the colony downfall
 - As you are heading into spring, fresh pollen will become abundant. Fresh pollen is always superior to stored pollen from the previous season
- *Replace the foundation with new*



Brood Frames

DISCARD

❑ Discard

- *Frames that contain remnants of brood should be discarded*
 - Frames with a few incidental cells might be ok...
 - If frames have vestiges of brood, they likely have undeveloped larva inside that may be harboring viruses
 - ❑ When the new colony workers clean these cells out, they can pick up remnants of the viruses within. Freezing cold exposure does not always kill off the viruses protected in soft tissue under the cappings
 - Avoid using old brood frames with capped brood present – this is a risk to future colonies



Frames with Mold

Reuse

□ Reuse

- *If frames have some mold present, they are ok to reuse*
 - Sometimes the interior of deceased hives get moist and residual mold can form on the honeycomb
 - As long as frames are not encrusted with mold, they are safe to reuse
 - Honeybees can clean up mold and restore comb with no deleterious effects
- *If you are averse to this....*
 - It is your personal preference. You can discard this comb, but most reuse it



Poorly Formed Comb

DISCARD

❑ Discard / Recycle

- *Cleaning out Dead outs provides opportunity*
 - If the bees did not build frames well, now is the time to replace the comb
 - Cut out the wax foundation and replace it with a fresh sheet, or scrape the comb off the plastic, and rewax it for reuse
- *If in doubt, consider culling it*
 - It is true that a new colony will benefit from recycled comb. They will also build new comb in abundance.
 - If you have compromised comb, it is a detriment; frugality here is not beneficial



Interior comb with Feces

Discard and/or Mitigate

□ Feces deposits on comb

- *If it is on the frame woodenware you can scrape it off and clean surfaces with bleach (don't forget to clean the hive tool)*
- *Honeycomb that has vestiges of feces on them should be discarded*
 - Feces could be harboring undesirable elements that will be passed to the bees if they try to clean it off of the wax.
 - Cut out sections with deposits if the exposure is minimum or better yet cull all of the wax outright.



Pest Infested Comb

Discard and/or Mitigate

□ Evaluate and Decide

- *Pest affected comb is handled on case to case basis*
 - If mice move into a colony, **all comb that they come into contact** through the nest should be discarded
 - You might not be able to tell, but urination from the mice will sully the comb and wax.
 - It might look fine, but you find that honeybees do not care to recover this comb
- *Consider comb proximity to the affected area*
 - Comb in the vicinity, and under the nest is likely impact. Other nearby comb is likely fine, and you can consider your options to reuse it.



Old Honeycomb

DISCARD

❑ Discard

- *Sometimes you get comb from buying a Nuc*
 - Get rid of this comb as it came from an outside source
 - TIP > This should be done as soon as possible – dead out notwithstanding
 - ❑ Even if your hive came through, make a plan to cull those frames out early in the season
- *Old comb in rotation?*
 - If you find yourself in this position for some reason... Cull Old Comb
 - ❑ Recommendation is to cull comb once is three/five years or older
 - ❑ Especially brood comb frames which could be harboring pesticides and bad elements



Managing Resources and Dead Bees

□ Discard Refuse Judiciously

- *Limit Exposure to live bees and discarded honeycomb*
 - Consider that dead bees might have viruses which can be passed only with contact
 - Do not simply toss them out in the yard, if that is something that might be possible in your apiary. Physically collect them in some container and take them out of the apiary
 - You can place them in a compost pile (while it is still cold) or in the trash. You could distribute them into a natural setting somewhere far from the apiary
 - Bees sometimes visit compost piles – keep that in mind as you make your choices
 - Old honeycomb is attractive to live bees. Keep live bees out of honeycomb that you are in the process of discarding



Everything Else

Discard and/or Mitigate

❑ Shelter Considerations

- *A dead hive is an opportunity for shelter in winter*
 - A whole host of pests and insects could move in for shelter
 - It is plausible that Ants, Earwigs, Spiders, **Waxmoth**, and other elements could be present when you take off the roof.
- *As a general, use common sense*
 - Simply evaluate the impact from the intrusion and make a judgement call
 - ❑ As an example, often you can shoo the intruder away, and if what remains is viable, you can give it back to the bees



Air and Sun Exposure

□ Equipment Cleanup

- *Set up reclaimed equipment in direct sun and open airflow*
 - Sun exposure kills off microbes and airflow dries off errant moisture
 - Spread the equipment out on a sunny day. Mix it around to ensure surfaces are exposed to the direct light of the sun
- *Clean if prudent*
 - There really isn't a general need to bleach or sanitize equipment but if you are so inclined to do some spot cleaning (ie. feces on hive exterior) – *go ahead*
 - Ensure that there is plenty of time for chemicals used to dissipate before placing bees in equipment



Irradiation

□ Irradiating Hive Equipment

- *There are regional programs that you can pay for to irradiate your hive equipment*
 - You would take your equipment to a center – they will place it on a pallet, and it will be irradiated to kill off any persistent threats that could be present
- *Specialty Programs*
 - These programs are often made available through local and state bee clubs
 - You will pay for each hive based on the amount of equipment you submit



General Corrections

□ Equipment out of Service = Opportunity

- *Evaluate any corrections... Considerations:*
 - FRAMES | Did you make a mistake building your frames? Correct it
 - FRAME RESTS | Frame rest guards – Did you forget them? Add them now
 - PAINT | Was something wrong with your paint process? Consider repainting
 - HIVE BASE | Something not right with how the hive was placed? Resolve it
 - WRONG SPOT | Need to move the hive to another spot?



Turn the Page

□ **Not enjoyable work; but it has its rewards**

- *When you are done; let what you learned arm you for the future*
 - Cleaning up after a loss is never an enjoyable experience
 - But there is something cathartic about proactively looking at the situation
 - What you learn can will serve as experiential knowledge
 - What you learn will always serve as a good baseline and input to your future beekeeping practices and is well worth the effort



Closing Comments

- **Customary Close**
 - Where we stand, where we are going...
 - *This module closes out the series on performing hive autopsies (necropsy)*
 - *Our next topic moves to the preparatory steps for getting started:*
 - Our next lesson is a primer on honeybee maladies
 - After maladies, we turn to honeybee swarm dynamics



Q&A

- **What Questions did we not anticipate?**
 - If you have feedback, you can leave a constructive comment; but be nice.
 - You could also send an email to comments@managedmentoring.com
 - *Please refer to this video in the subject so we know what the reference is.*

