

A close-up photograph of a bee on a purple flower. The bee is positioned in the center-left of the frame, facing left towards the flower. The flower's numerous small, purple stamens are in sharp focus, while the background is a soft, out-of-focus yellow-green.

# HOW TO CREATE „BORT“ HIVES AND LOG HIVES

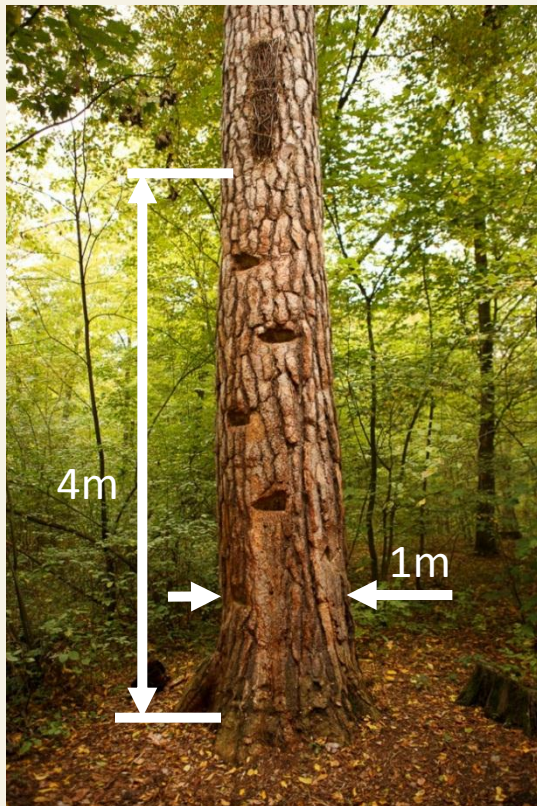
Some principles

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Date: 26.12.2013

# Dimensions of traditional tree hives

## BORT hive in living trees

A tree is measured at the height of the human breast. Polish beekeepers recommend a minimum of 1m in diameter. In Switzerland we will test whether we can use a minimum of 80cm in diameter.



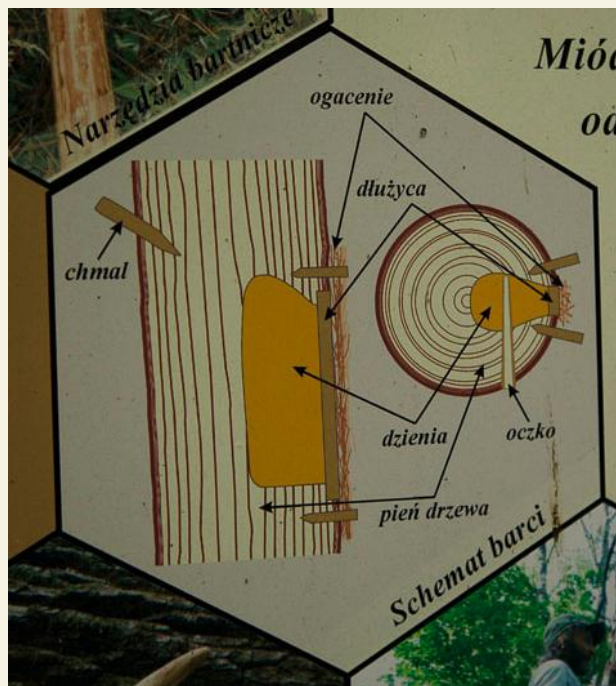
## Log hive with dead wood

A log hive can be built smaller, as the hive doesn't need to be as stable as the living tree. A diameter of around 55-60cm is enough.



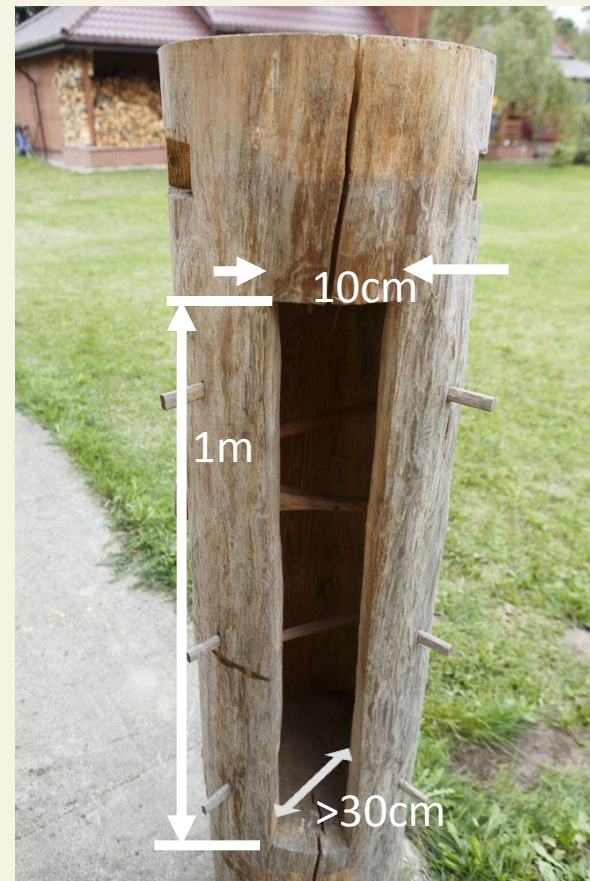
# Dimensions of traditional tree hives

Schematic vision of a BORT hive in a very thick tree



Dimensions of the brood nest for BORT hives and log hives

We recommend a minimal inside diameter of around 30-40cm.





# How to choose the right tree

- If your tree is not vertical, you might climb up on the topside, having your operations access underneath



- Try not to choose the part of the tree with the most branches. To hollow the tree might be very difficult.
- Neither the bees' entrance nor the operations access should be aligned towards west or north. Choose east and south, if possible.
- Choose trees in areas where you know that the food supply is good (depending on the kind of trees and on the forest glades).
- At the height of about 2 meters, the tree is exposed to the biggest forces. Don't make your cavity there.

# What kind of trees should be chosen

We know that it works on the following trees:

- Pines
- Fir trees
- Chestnut
- Oak

Lots of other trees need to be tested:

- Linden tree
- Larch (seems to be difficult to work with according to Polish experience)
- Beech tree (most easily to find in Switzerland)
- Etc.

# The very first cut

Use a motor saw for the very first cut



Cut out a wooden piece of the tree



Tree beehives are usually created in autumn and dried out during winter. Please leave your hive open during winter, otherwise it might decay.



# Preparations for digging the hole

The very first cut from a fixed platform, using the motor saw



Cutting steps from a mobile platform, with an axe



# Digging the hole

Holing the brood nest



Opening the bees' entrance





# Original tools from Russia

This tool is called  
«Dechsel»  
in German and  
«adze» in English.

No name found  
for this tool so far.  
It's a kind of a big  
chisel.  
(Piesznia in Polish)

Practical advice for these tools:

**Long and thick shaft**

**Maximum weight of the metal tool**

**Minimum width of the cutting edge (up to 3-4cm)**

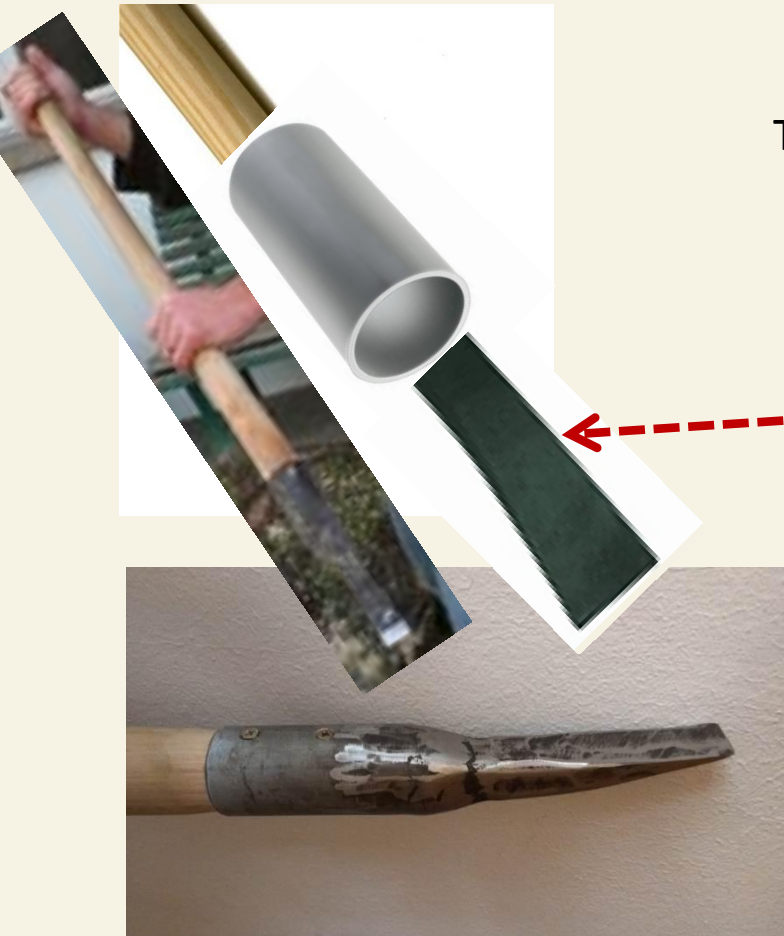




# Swiss-made copies of the original tools

Buy a wooden handle, take a metal pipe and a piece of the pickaxe

Buy one of the modern pickaxes with a weight of about 3.8kg



Total costs: approx.  
**230 Euros**



Your blacksmith/forgers/toolmaker will help you with this.  
Otherwise you can order the tools from [FreeTheBees](https://www.freethebees.com).

# Original Tools copied in Poland



Blacksmith-made tools for carving hive's chamber

With tool number 2 you can refine the surface inside the cavity.

Total cost of the three tools (1 to 3) produced in Poland:  
**150 Euros**



# Other useful tools 1/2



Cutting lines helps for the manual work!



A big chisel helps for cutting next to the entrance



## Other useful tools 2/2

- Cultivation howler  
[See video](#)



- Your howler needs to be as narrow as possible, otherwise its use is very limited.
- Expensive tool of approx. 650 Euros without the motor saw.



# Preparing for the bees

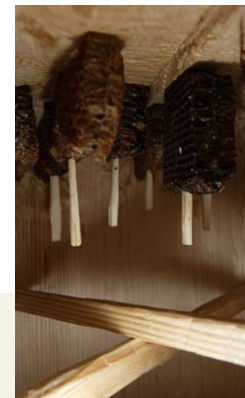
- Original tree cavities in Poland are started with some pieces of wax-comb, nailed with wooden nails to the roof of the cavity.
- On the one hand, this attracts the swarms in spring.
- On the other hand, you can give the combs a direction in order to maintain and harvest easier.





# Swiss Law Compliancy

For better attraction of swarms, combine the original method with the law-compliant method.

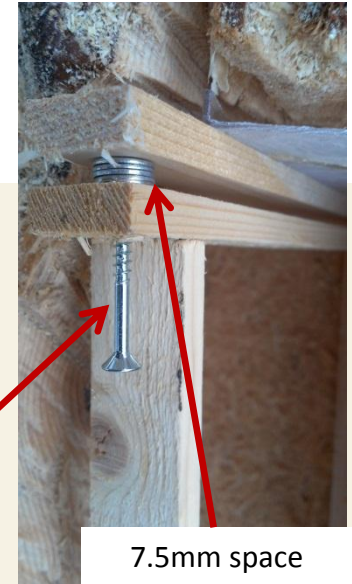


In Switzerland every hive needs to be officially controlled for brood diseases. Therefore, the Swiss bee inspectors want to see the brood-cells.

For Swiss compliancy reasons, we recommend placing in the middle a single mobile frame with a wax stripe on the top.

As bees glue every open space with wax and/or propolis, a fixed frame and a mobile frame with a space of about 7.5mm in between need to be built.

Against the roof we might build another support with a space of around 7.5mm for putting in varroa treatments like for ex. thymol treatments.



One screw in front to fix the mobile frame

7.5mm space between fixed/mobile frame

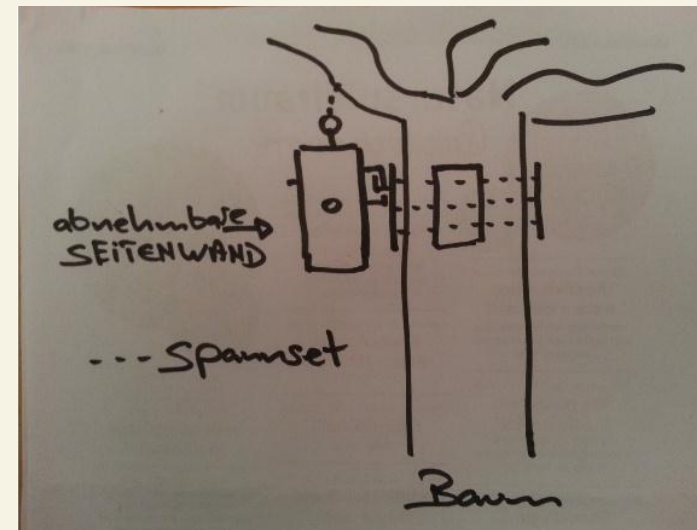
Open space on top for treatments



# Hanging up log hives

There are plenty of ways to hang up log hives.

Please consider: The tree is growing, the diameter isn't stable and might thus damage or burst the rope!

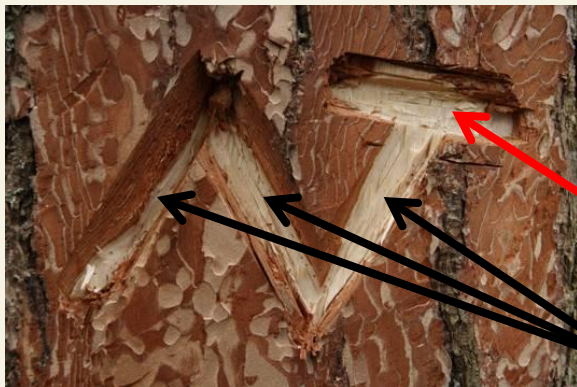




# Don't forget about the traditional signature



Every tree beekeeper has his own signature. The student takes over the master's sign and creates an additional line.



Student's attachment

Master's sign

