

Beekeeping Equipment

Beekeepers use special tools to manipulate and inspect a hive for honey readiness or to assess the health of the colony. The basic equipment is described below:

Smoker (Figure 1). The smoker is designed to produce smoke which is pumped into the hive before opening the hive and while the beekeeper is working on the hive. The smoke has a calming effect on the bees.



Figure 1. Lighted smoker with ironwood needles. Photo by Clive Okino.

To start a smoker, paper is added to the smoker and lit. After the fire has started, dried leaf material, wood chips, burlap, or rolled up cardboard (example materials that can be used) are added on top of the burning paper (Figure 2).



Figure 2. Ironwood needles added to smoker. Photo by Ellen DesJardins.

The cover of the smoker is then closed and the bellow side pumped so that air is directed through the burning material in the smoker to smolder and produce smoke. The type of smoke produced should be “cool” smoke in that there is very little heat associated with the smoke that comes out of the smoker and by no means should there be any flames visible which would physically burn the bees.

Hive Tool (Figure 3). The hive tool is a multi-functional and essential piece of equipment for the beekeeper.



Figure 3. Hive tool. Photo by Clive Okino.

The metal tool is used as a prying device to open the hive and loosen frames from the sides of the hive body, a scraper to take built up propolis (plant resins and gums that bees use to seal up the hive) off the frames and inside of the hive (Figure 4), and a nail remover.



Figure 4: Loosening frames with the hive tool. Photo by Ellen DesJardins.

Bee Brush (Figure5). The bee brush is used to remove bees from the frames and parts of the hive that need to be observed.



Figure 5. Bee brush. Photo by Clive Okino

It is a light weight brush which when used, should be directed at the 45° angle downwards to prevent “rolling” the bees into the brush when removing them from the frame (Figure 6).



Figure 6: Removing bees from the inside of the hive cover with a bee brush. Photo by Ellen DesJardins.

Frame Grip (Figure 7). The frame grip is a metal clip which is spring loaded and can be opened and closed manually.



Figure 7. Frame grip. Photo by Clive Okino.

The frame grip is opened and attached to the top bar of the frame and when closed, helps to remove the frame from the hive body (Figure 8). Though not essential, the frame grip helps when gloves are worn.



Figure 8: Removing a frame from the hive body using a frame grip. Photo by Ellen DesJardins.