

Smoker Instructions

Why use smoke?

- The traditional wisdom is that smoke stimulates bees to gorge honey or nectar, temporarily disrupting the defensive behaviour of the colony and making the bees easier to handle.
- Why does smoke do this? Perhaps smoke masks the pheromone communication between the bees, or limits the oxygen intake causing reduced activity, or impairs other sensory receptors. We do not know the exact mechanism, however it seems to work in most instances.

What smoker fuel is best?

- The ideal smoker fuel remains lit, burns slowly and produces cool white smoke.
- Natural material is best - Pine needles or dry stringy bark give off dense, cool, aromatic smoke.
- All beekeepers have their own favourite material.
- While many types of fuel will produce smoke when burnt, some produce a hot smoke that can burn the bees. Other material may give off harmful chemicals.

What to avoid -

- Sawdust burns hot, and creates embers which can be blown into the hive.
- Synthetic materials and petroleum products produce a dark, irritating smoke.
- Hessian or other bags can contain left-over contaminants that give toxic smoke as they burn.

How to light the smoker:

- With the smoker in a fire box or safe container, place a small amount of newspaper or cardboard in the bottom of the smoker and light it.
- Add a small amount of dry fuel (for example pine needles) and work the bellows to gently draw the fire. Continue to add fuel while working the bellows. When the fire is well established with plenty of smoke, add more fuel to fill the barrel.
- Pack the fuel reasonably firmly, but not so tightly that it will prevent air flow. Hot smoke and sparks only make bees angry.
- Top the material up from time to time to ensure it stays alight. Loss of smoke while working a difficult hive, is not recommended.

How to use a smoker:

- Sounds obvious, but things are not always what they seem.
- The bees take about 5 minutes to respond to smoke, so if you puff the smoker and immediately open the hive, many of the 20,000 to 40,000 bees may not be affected by the smoke.
- Solution - puff smoke into the entrance and under the lid, then step back and wait for 5 minutes.
- Direct your smoke to the guard bees at the entrance first. If these become aroused and aggressive, no amount of smoke will calm the colony.

How much smoke:

- A common mistake is to use too much. 2-3 puffs is all that is needed.

How to extinguish a smoker:

- Burning embers can start fires, and in a forest or bush environment you risk your own life and that of others, if your smoker is not totally extinguished.
- Use safe beekeeping practice and empty the remaining fuel/ash into a bucket of water and ensure it is thoroughly wet. Tightly packed smoker fuel can remain smouldering at the centre, even when the outside is soaked.
- If strong winds make emptying the smoker unsafe, then plug the nozzle and place the smoker in a metal firebox until it is cold.

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