

Apis m. Esoteria 2b

Lighting a Smoker

OBJECTIVE: To recognize good smoker fuel (local and purchased)

Discuss pros and cons of different fuels, types of smoke, duration of burn, and temperature of smoke

Be able to light the Smoker and keep it burning 10 minutes

Be able to extinguish the smoker

EQUIPMENT NEEDED: Several types of fuel, pine needles, oak leaves, cedar shavings, sumac berries

Newspaper for lighting

Long Propane Lighter

Smoker (large or small)

Cork

INTRODUCTION: This lesson teaches you how to choose the proper size smoker, select good fuel, light the smoker, handle it safely, and extinguish it.

OUTLINE: Type of smoker: This is a “cool air” bellows smoker.

Cool Air is so you don't bake the bees while you work

Originally, sooty torches or campfires were used, then they figured ways to direct that hot smoke where they wanted it.

Invented around.....? Updated frequently to make it handier and safer

Large smoker vs. small smoker: More beehives need larger smokers which hold more fuel. Small smokers cost less. Africanized honeybees require really large smokers

Types of fuel: Pine needles: Burn hot and fast Free Usually easy to locate

Grass and leaves: Burn cool, hard to keep going Need to keep puffing smoker Lots of ash accumulation in smoker

Cedar Shavings: Burn hot and steady Must buy at pet store easy to light. Gives off cedar oil in smoke which is an insect repellent (Cedar Chests and Closets). can increase varroa mite drop

Commercial fuel pellets: Burn cool and long (by design) Gives off lots of cool smoke. Must order, not free Hard to light

Homemade fuel: Messy, time-consuming Newspaper, cotton rag, soaked in liquid salt peter for smoke. Don't want fly ash which can go into hive and make it dirty

TRICK: Smooth Sumac berries, when used with good fuel will give off citron oil, which causes varroa mite drop

DO NOT use fuel contaminated with petroleum products. The smoke will kill the bees. Insect/mold resistant burlap

Lighting Instructions: Put a little fuel in bottom of smoker (creates fire under most of fuel)

Twist 2" strip, (Full length of page of newspaper), lightly into coil

Light the end of twist, let it burn for a second, burns fingers

Place flame end down into smoker to touch fuel in bottom

Let burn for a few seconds, gently puff smoker 1-2 times to keep flame going

When paper is flaming well add some fuel on top of flame

Keep it burning until fuel is well lit

Pack smoker with lots of fuel, a little at a time and keep puffing until good smoke is coming out

Trick: put wine cork or punky wood in lit smoker to hold embers in case you run out of fuel. You can add fuel and puff to catch fire back up. Don't use the plastic artificial corks.

Let it burn for a few minutes then close the smoker lid

Puff smoker until good smoke is coming out, puff periodically to keep fire lit, Do Not puff until flames come out of spout. This means you need to pack more fuel in so it will smolder

Safe use of smoker: Smoker is hot enough to catch dry grass on fire. It will melt plastic and nylon. It will catch your cotton clothes on fire and then you. The back of your pickup truck. The bottom of the smoker can catch the wooden top of a hive on fire or melt your plastic top. New type of smokers with fire guards are best. Be extra careful with "grandpa's hand-me down smoker".

Don't puff smoker until sparks and flame come out spout. You will catch grass and bees on fire. The inside of the hive is like a large wax candle waiting for a spark!

Extinguish the smoker: Place a tapered cork in the spout and let it burn out. Let the metal canister cool down. Stowe and go!

Trick: an old army ammo can makes a great, safe hot smoker holder

Dead fuel in cold smokers become starter fuel next time. Periodically you will need to dump out the fuel and accumulated ash.

You can dump fuel out but make sure there are no sparks, water the debris with your drinking bottle, then grind out with your foot before leaving the area.

Maintenance: Check screen at the bottom of smoker; make sure it is there. Sometimes it falls out when you empty the smoker. After a few years it will disintegrate. It allows air to reach bottom of fire. You can buy replacements.

Maintain lid and hinge so top closes tightly and easily. Scrape creosote with hive tool

After a long time, the bellows might wear out. These are replaceable.

IMPORTANT NOTES: Use a cool air bellows smoker with wire fire guard (the wire cage around the body of the smoker).

Use clean dry fuel that burns clean, without creosote

Keep the smoker well maintained

Be careful, smoker is dangerous.

SUMMARY: We have gone over how to choose a smoker, which fuels to use, how to light it, use it, and put it out safely.

TEST QUESTIONS: What type of smoker is best to use in the small apiary? Cool air bellows

What type of fuel works well in a smoker? Cedar shavings with punk wood embers and sumac berries

What is a safe way to store and transport a smoker in a vehicle between apiaries? Cork it, let it cool, then put it away securely in the vehicle

If you can, secure it in the open bed of a pick-up truck that will work

If you have an adequately sized sealable metal container (large old army ammo can) that you can secure, place the smoker in it and close the can.

You do not want a hot/live smoker rolling around in a moving vehicle.