

Thriving Hives: Propolis - Harvest and Usage

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Introduction



One of the lesser-known substances produced by honey bees is something called propolis. Propolis is a type of adhesive that bees use to construct their hives and keep unwanted invaders out. Every beehive produces differing amounts of propolis. Some hives will create little to no propolis, while others will produce so much you can hardly open the hive with how well the bees have "glued" things together. On average, you can harvest 50-100 grams of propolis per hive per season.

Propolis is difficult to collect and process but can be beneficial, as it has many useful applications. Like honey, propolis has been scientifically proven to have various medicinal properties and is useful for treating topical injuries.^{1,2} It also contains a myriad of important vitamins and minerals and has undergone clinical trials to determine if using it as a medicine is scientifically viable. While research on this topic is limited, the generally positive trial outcomes indicate potential for future research on using propolis as a medicinal substance.³

Using Propolis

Once harvested from the hive, propolis must be cleaned and stored in the fridge or freezer. Processing propolis is time-consuming and messy. If you decide to collect and process your own propolis, it is important to understand what you're getting yourself into. When planning to work with propolis, wear clothes that could potentially be ruined. Ensure that work surfaces can get dirty (maybe permanently).

Harvesting Propolis



Figure 1. Propolis Trap

There are several different ways to collect propolis from your beehives. The simplest option is to scrape excess propolis off of your hive and the frames as you find it. However, this option will typically yield only a little substance.

The second option is to use a propolis trap. These can be purchased online for around \$10. A propolis trap is essentially just a queen excluder with smaller holes (**Figure 1**). To set it, open the top box of your hive and remove the inner cover. Next, place the propolis trap atop the box and find something to prop the outer cover open, like a small rock or stick. This will allow some light into the hive, motivating the bees to fill the holes in the trap to block it out. Once the trap is full, place it in a plastic bag and put it in the refrigerator or freezer, as this will help the propolis harden, making it easier to harvest.

Once the propolis has set up, you can remove it from the trap by bending the frame and scraping it out, hitting it against something solid, or smashing it with a hammer. Keep it in the bag for this process. After you remove the propolis from the trap, clean it, as it will likely contain dirt and other debris.



Even if you don't use a trap to collect propolis, allow it time to cool and harden. Propolis is cleaned by rinsing with cool water, and that is best accomplished with hardened propolis you have broken into small pieces. Large clumps that you pull from your hives can be frozen in bags and then broken up with a hammer.

Once you break the propolis into small pieces, you will be ready to clean it. For this process, you will need a large bowl or bucket full of cold water. (*Don't put the propolis in first; it will stick to the bottom*). Put the propolis pieces in the bowl, swish them around with your hands, and then wait for them to sink to the bottom. You will see dirt and debris floating at the top, which you should skim out. Repeat this process by swishing the propolis around again and waiting for the debris to float up. Once you have cleaned all the propolis, lay it out on a tray with parchment paper to dry. Ensure you do this in a cool environment out of direct sun to keep the propolis from becoming soft and sticky. Store it in the freezer until you are ready to use it.

Propolis Products

Once you have a usable form of propolis, what can you do with it? The following recipes are a few ways to turn propolis into useful products. Note that while these products may benefit your health, they should not replace professional medical treatment.



Propolis Tincture

1 part propolis

9 parts grain alcohol (75 proof or higher vodka or Everclear)

1. Mix 1 part propolis to 9 parts grain alcohol (i.e., 1 ounce to 9 ounces) in a large jar with a lid and shake well. Using 75 proof or higher vodka or Everclear will work. Do not use rubbing alcohol; it's poisonous.
2. Store the tincture in a dark place.
3. Shake the jar 2-3 times per day for up to 3 weeks.
4. Strain the mixture and store the liquid in a dark place.
5. Propolis left in the filter can be reused.

Notes: Propolis will melt when heated, which causes it to lose many of its beneficial properties. Therefore, making a tincture with propolis is the preferred method because it dissolves well in alcohol without using heat. It is important to use weight measurements when making this tincture, so a kitchen scale is a must. This is a 10% solution. Increasing the amount of propolis will increase the percentage.

Tinctures are typically taken orally as a supplement. A few drops are the most to consume at a time. A common practice is to keep the tincture in your mouth for a minute before swallowing. Another option is to mix it into beverages. It is believed that taking this tincture will help prevent colds and other illnesses. This has not been proven scientifically, but it has been shown to help alleviate symptoms.



Propolis Infused Oil

10 grams propolis**6.7 fluid ounces oil (olive, coconut)**

1. Mix the propolis and oil together in a double boiler on a medium or low setting.
2. Use a candy thermometer to ensure that the mixture stays under 122 °F. Keep the mixture on the heat for 10 minutes, stirring throughout. The propolis will not all dissolve.
3. Strain the mixture to remove any chunks. This may take a few attempts. You want the oil as clean as possible.
4. Store the mixture in an airtight container. The remaining propolis can be saved and used again.

The oil can be used on minor cuts or abrasions, patches of dry skin and rashes, or incorporated in other recipes.

Propolis Cream

For external use only: scrapes, cuts, and dry skin around elbows, heels, and knees.

Wax**Propolis****Honey****Vitamin E Oil**

1. Melt equal parts wax and propolis slowly in a double boiler, keeping the temperature below 130 °F.
2. Mix well and allow to cool slowly.
3. As it begins to set, stir in small amounts of honey until you like the texture.

4. Stir in a few drops of vitamin E oil. Avoid adding too much, as this can make the cream too runny.
5. Add essential oils if desired, being careful that the essential oil chosen does not irritate the skin. Store in an airtight container.

Propolis Ointment**1 ounce beeswax****8 ounces oil (i.e., jojoba, almond, coconut, olive)****2 tablespoon (approximately) propolis****10 drops vitamin E oil****Essential oils**

1. Melt the first two ingredients in a double boiler and mix well.
2. Bring the heat down to medium-low and melt the propolis. Try to keep the mixture below 130 °F.
3. Let the mixture cool before adding the rest of the ingredients.
4. Transfer to an airtight container.

Use the ointment on minor cuts and scrapes. It can also be used orally for cold sores, canker sores, etc.

References

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