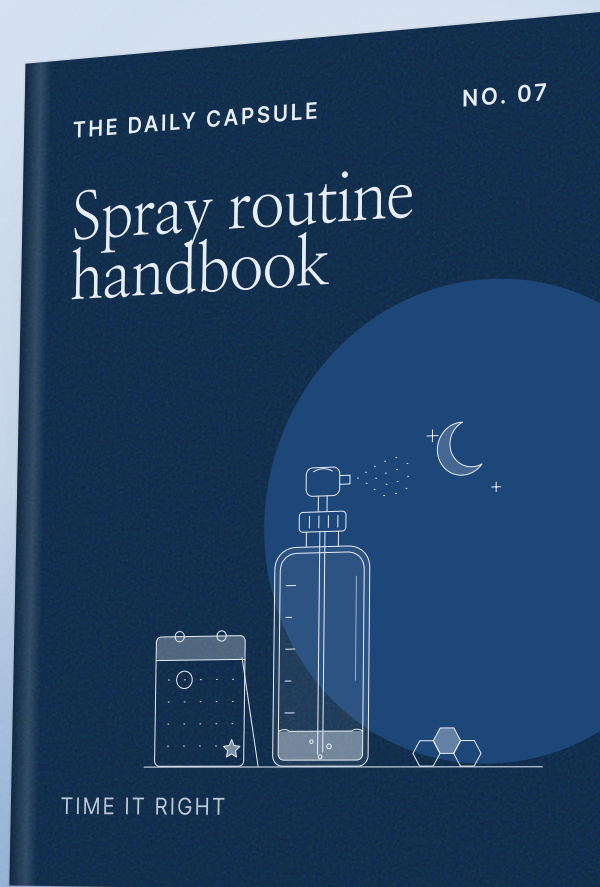




ROUTINE GUIDE · STACKS

# Keep your propolis spray working to the last

A propolis spray lives or dies by timing, pairing and storage. Use this walkthrough to set a serving time, match the solvent to your routine and keep the bottle working to the last spray.

- **Trap yield**  
Plan on 50 to 100 grams per hive each season, never the same twice.
- **Serving math**  
Glycerin needs 2 to 3 mL to match 1 mL of alcohol tincture input.
- **Paper trail**  
Match the lot number to methods, solvent and test date.

By Jonah Keller · Updated Aug 16, 2026 · 9 min read

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A glycerin spray and an alcohol spray are not interchangeable in a morning stack. One keeps 14 to 24 months and often needs 2 to 3 mL to match 1 mL of tincture input, while the other keeps 3 to 5 years and tastes stronger, so your serving time, water pairing and reorder date all shift with the solvent. Once you know harvest method, solvent ratio and test method, you can anchor the bottle to breakfast or bedtime and track it without guessing.

01

Hives first: region plus season

Plant species, season, climate, environmental conditions and genetic factors all move honey and propolis from batch to batch. Geographic and botanical source plus bee species drive differences in propolis, which is why two honestly produced jars from separate regions can differ in look and scent. Across central and eastern Europe including Poland, black poplar or birch supply most propolis, and source changes color and chemical makeup.

Royal jelly runs on a separate clock within the colony. Worker bee hypopharyngeal glands reach peak activity between day 6 and day 12 after emergence, and pollen intake supports gland development and royal jelly output. Staff scientist Emily O’Neil at The Best Bees Company states the field check simply: You can often judge whether a colony holds enough pollen or bee bread by viewing the larvae inside a hive. If the larvae are floating in pools of royal jelly, it shows nurse bees ate enough pollen to make royal jelly.

Large scale beekeeping gives background rather than a verdict on quality. Taiwan holds around 160,000 colonies and reports royal jelly output as one illustration of the managed population behind everyday hive goods. The practical habit stays narrow. Ask for apiary location, forage plants and harvest season for the lot. A label that lists growers, sites and harvest dates lets you trace what you take.

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## 02

### Collection habits that shape your bottle

A hive commonly gives 50 to 100 grams of propolis per hive per season on average. Output shifts among hives, since some colonies deposit little while others cement sections so firmly that opening turns difficult. That natural range helps explain why one bottle tastes bolder or looks darker than the prior one.

Harvest generally follows two routes. Scraping lifts propolis directly from frames and boxes using a hive tool. The approach is quick and calls for no added tools, yet scraping propolis from painted equipment or treated hives risks paint and varroa treatment chemicals in the material. Flakes of paint and mite treatment residues can move with scrapings into the container.

A propolis trap works in a different way. The tool is a queen excluder like sheet with smaller holes, sold for around \$10, set above the top box with the outer cover propped open to admit light. Bees dislike light and draft through the small holes and close them with resin. Full traps go into a fridge or freezer to firm the propolis, then release it by bending, scraping or tapping while still in a bag. Cold turns the resin brittle, so it breaks away cleanly rather than smearing.

#### FROM THE EDITORS

Scraping costs less and needs no extra gear, while propolis traps reduce contact with paint and hive surfaces. Sound material can come from either path when tools stay clean and mite treatments stay logged, so ask about collection for the lot and the conditions around it.

## 03

### Clean lots keep routines steady

Newly gathered propolis holds wax, wood bits, bee parts and dust. The cleaning routine uses hardened propolis broken into small pieces, swirled in cold water so propolis sinks and dirt floats for skimming, then dried cool on parchment out of direct sun. Cool temperatures count because warm water softens resin and locks debris in place rather than freeing it. Soft drying guards scent and leaves pieces loose and easy to handle.

Cleaned propolis waits in the fridge or freezer until extraction. Chilled storage slows shifts in smell and texture during the hold before processing. Small apiaries often store cleaned batches in marked bags showing harvest place and date, and those details later form the lot identity on a certificate of analysis.

Temperature control continues through later preparation. For a steady routine, keep oil propolis mixes gently warmed below 122 degrees F and wax propolis creams below 130 degrees F, since heat lowers helpful properties. The same care covers drying and melting for honey mixtures. A producer that records temperatures and drying settings demonstrates process control rather than habit alone.

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## 04

### Alcohol or glycerin sets timing

Ethanol and glycerin draw separate fractions from identical resin. Alcohol tinctures use 40 to 70 percent ethanol and pull alkaloids, resins, glycosides, terpenes and essential oils, with 60 to 70 percent ethanol required for resinous material. Ethanol pulls a wider range than glycerin, and weaker ethanol gathers more water soluble compounds while stronger ethanol gathers oil soluble resins, essential oils and some alkaloids.

A small batch formula makes the ratio thinking clear for bigger runs. A 10 percent tincture uses 1 part propolis by weight to 9 parts grain alcohol of 75 proof or higher, like vodka or Everclear, and rubbing alcohol should never be used. Keep the jar in the dark and shake it 2 to 3 times per day for as long as 3 weeks, then strain it and store it dark. Shaking brings fresh solvent against the resin, and dark storage curbs light exposure through the soak.

#### **Glycerin keeps the alcohol free slot**

Glycerites use 55 to 70 percent vegetable glycerin and capture about 60 to 70 percent of active compounds against alcohol, so 1 mL tincture roughly equals 2 to 3 mL glycerite. Finished glycerin extracts need to stay at least 55 percent glycerin to preserve well in daily storage. That cutoff shows why label glycerin strength deserves a look instead of presuming any sweet extract will store well.

The solvent fixes shelf life and reorder rhythm. For planning refills, alcohol tinctures last 3 to 5 years, glycerites last 14 to 24 months, and vinegar oxymels last 6 to 12 months. A nearer date on a glycerin spray does not signal weak production. It mirrors preservation chemistry, storage and frequency of opening.

| FEATURE             | ALCOHOL EXTRACT                                                               | GLYCERIN EXTRACT                                                          |
|---------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Solvent range       | 40 to 70 percent ethanol, 60 to 70 percent for resinous material              | 55 to 70 percent vegetable glycerin, at least 55 percent for preservation |
| What it captures    | Broader range including resins, essential oils and some oil soluble compounds | Narrower range, about 60 to 70 percent of active compounds versus alcohol |
| Dose comparison     | Baseline at 1 mL tincture                                                     | Roughly 2 to 3 mL glycerite for a similar material input                  |
| Shelf life unopened | 3 to 5 years stored dark                                                      | 14 to 24 months stored cool and dark                                      |

05

## Lab numbers that guide restocks

Brands commonly cite total phenolics or flavonoids. Folin Ciocalteu and aluminum chloride assays estimate total phenolic and flavonoid amount, while DPPH and ABTS test radical scavenging, but they give broad rather than compound specific results. Simply put, those tests estimate compound groups and bench activity, not the precise blend inside the spray.

Honey enrichment work underlines the need for specifics. Tracing the batch to hive and forest shows honey mixed with propolis extract gained polyphenols including flavonoids and phenolic acids, with chrysin, pinocembrin, p coumaric acid and ferulic acid at the highest levels. More propolis raised lab measured antioxidant, antiradical and reducing activity, but it made color, smell, texture and taste worse. Those bench results portray chemistry in glassware, not effects in people.

Total phenolic and flavonoid tests plus DPPH and ABTS give broad estimates only, and need LC MS for compound detail. Liquid chromatography with mass spectrometry can separate and identify single compounds, which helps compare lots across seasons. Major royal jelly protein 1 and 10 hydroxy 2 decenoic acid are the top protein and fatty acid in royal jelly and act as key quality markers, showing hive products often need their own marker rather than one shared number.

Propolis makeup shifts greatly by plant, geography, bee species and processing, which limits direct comparison across studies. Clinical evidence for medicinal uses is called limited, so tinctures should not replace professional treatment. As Dr. Ryszard Maleszka of the Australian National University notes, “With our current knowledge we only scratch the surface of

biological systems, and honey bee biology is no exception.” A flavonoid value can aid identity and batch comparison when methods hold steady, yet it cannot show what a spray will do for the reader.

#### FROM THE EDITORS

Ask which solvent the sample came from, which test was used, and whether the lab ran LC MS alongside the global assays. A number without method, solvent and date is hard to compare across brands or seasons.

## 06

### Pairing, spacing and reorder cues

Mixing propolis into honey alters chemistry in steady patterns. Propolis addition had no clear effect on HMF, sugar content or specific conductivity, but it clearly increased free acidity and water insoluble substances. Free acidity and water insoluble matter thus help track how much resin went into a blend, while sugars and conductivity may stay flat. Taste tells the companion story. Adding propolis to honey lifts phenolics and lab antioxidant activity but harms sensory traits, so use is a tradeoff between measured chemistry and color, smell, texture and taste.

Purity screening runs next to composition testing. Exact pesticide and heavy metal amounts in any bottle cannot be known without a batch specific lab report. It is reasonable to request recent third party results linked to a lot or batch number, along with apiary treatment and harvest tool notes. The front label seldom fits those facts, so a linked certificate of analysis carries more weight than package wording.

Variation across lots stays expected for hive goods because plants, weather, bee genetics and cleaning steps all adjust the starting blend. The best dose or length of use for sprays is not set, as preparation ratios are listed rather than clinical dosing. How storage time and temperature shift propolis spray strength after opening also stays unclear for now. Store bottles dark, cool and closed, write the opening date on the label, and speak with a qualified professional about use, especially for children, pregnancy or allergy history.

A short set of purchase prompts fits on an index card. Ask where the apiaries were and when harvest took place. Ask whether propolis was scraped or trap collected, and how mite treatments were handled. Ask which solvent and ratio were used, and what the glycerin percentage is when relevant. Before you buy, confirm which lab ran the tests, which methods were used, and whether the report matches the lot in hand. Brands that reply with places, dates and paperwork earn repeat buying. Where those answers remain vague, treat that step as still opaque for your routine.

## 07

### The checklist

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- ☐ Log lot apiary country plus region
  - ☐ Log stated harvest season and forage plant
  - ☐ Confirm trap collection or scraping method
  - ☐ Review paint condition and mite treatment log
  - ☐ Verify alcohol proof or glycerin strength
  - ☐ Align stated ratio with serving directions
  - ☐ Request lot matched third party report
  - ☐ Match phenolic assay type batch to batch
  - ☐ Follow free acidity plus insoluble matter
  - ☐ Allow for taste shifts as resin rises
  - ☐ Mark opening date and keep cool dark
  - ☐ Review household use with a professional
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## 08

### Sources and further reading

- Mechanistic exploration of royal jelly production in caged honey bees (*Apis mellifera*) · [pmc.ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov)
- Thriving Hives: Propolis - Harvest and Usage · [extension.usu.edu](https://extension.usu.edu)
- The Effect of Enriching Honey with Propolis on the Antioxidant Activity, Sensory Characteristics, and Quality Parameters · [pmc.ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov)
- Phenolic content, flavonoid distribution, and radical-scavenging activity of honey, propolized honey, and propolis extracts from Cauca, Colo · [link.springer.com](https://link.springer.com)
- Phytochemical profiling and characterization of flavonoid derivatives from propolis sample and investigation of cytotoxic and antiprotozoal · [nature.com](https://nature.com)

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Jonah looks after the brands The Daily Capsule works with and makes sure every sponsored page is labeled as one. He spent five years running subscriptions for a vitamin company in Brooklyn, which taught him how many bottles never get opened.

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