

Synera BOTANICA

GUIDE 01 • METHOD

Tincture Fundamentals

Ratios, menstruum, maceration, percolation, double extraction and storage — the complete method for making reliable herbal tinctures.

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What a tincture is

A tincture is a liquid extract made by soaking plant material in a solvent — the **menstruum** — usually a mix of alcohol and water. Alcohol dissolves resins, volatile oils, alkaloids and many flavonoids; water dissolves tannins, mucilage, glycosides and some polysaccharides. Choosing the right ratio of the two is the single most important decision in tincture making.

Weight-to-volume ratio (w:v). Grams of herb per millilitre of menstruum. A **1:5** tincture is 100 g of dried herb in 500 mL of menstruum; a **1:2** fresh-plant tincture is 100 g fresh herb in 200 mL.

Ratio and alcohol strength by material

MATERIAL	RATIO	ALCOHOL	WHY
Fresh aromatic leaf & flower	1:2	95%	Plant water dilutes the alcohol to ~50–60% final; preserves volatile oils.
Dried leaf & flower	1:5	40–50%	Balanced extraction of flavonoids and water-soluble compounds.
Dried roots & rhizomes	1:5	50–60%	Denser material; mixed constituents.
Resinous or curcuminoid rhizomes	1:5	70–90%	Poorly water-soluble actives (curcumin, gingerols).
Seeds	1:3	70%	Grind immediately before maceration (milk thistle).
Medicinal mushrooms	Double	~25% final	Polysaccharides need hot water; triterpenes need alcohol.

The weighed folk method

1. **Weigh** the herb. Chop fresh herb finely; break dried herb to a coarse cut (not a fine powder, which compacts).
2. **Calculate menstruum.** Herb weight $\times$ ratio. For 1:5 with 80 g dried herb: 400 mL.
3. **Mix the menstruum.** To make 50% from 95% alcohol: $(50 \div 95) \times$ total volume of alcohol, top up with distilled water.
4. **Combine** in a clean glass jar. All herb must be submerged; tamp down and fill to the shoulder.
5. **Label** immediately: herb, Latin name, part, fresh/dried, ratio, alcohol %, date.
6. **Macerate** 2–6 weeks out of direct light, shaking daily for the first week.
7. **Press** through cloth, then a hydraulic or tincture press to recover the marc's liquid — up to 30% of the yield.
8. **Settle and decant** after 24–48 hours to remove sediment. Bottle in amber glass.

Worked example — dried ashwagandha 1:5 at 60%

Herb: 100 g · Menstruum: 500 mL · Alcohol (95%): 316 mL · Water: 184 mL.

Percolation (advanced)

Percolation passes menstruum slowly through a packed column of powdered herb, producing a finished tincture in 24–48 hours with higher efficiency than maceration. Moisten the powder with menstruum for 2 hours, pack firmly into a cone percolator, cover with menstruum, rest 12–24 hours, then open the stopcock to a slow drip (about 1 mL per minute per 100 g). Collect until the target volume is reached.

Double extraction for mushrooms

1. Macerate the sliced mushroom in 95% alcohol at 1:10 for 4 weeks; strain and reserve the alcohol extract.
2. Simmer the remaining marc in water (10 $\times$ its dry weight) for 2–3 hours, reducing by about half.
3. Cool and combine with the alcohol extract so the final alcohol is at least 25% for preservation.

Storage, labeling & safety

- Tinctures above 25% alcohol keep for years in amber glass, away from heat and light.
- Every bottle label: name, Latin binomial, part, w:v ratio, alcohol %, batch date, dose.
- Use only organic food-grade alcohol (cane or grape) — never isopropyl or denatured alcohol.
- For alcohol-free needs, a dose can be added to hot water and left a few minutes to evaporate part of the alcohol, or prepare glycerites (lower extraction strength).

Know your plant. Positively identify every herb you harvest. Several toxic plants resemble medicinal ones (e.g. poison hemlock and wild carrot). Buy from suppliers who verify identity by testing.