Raspberry wine

Recipe No. 9 — for about 10 l of liquid must, yielding about 8–9 l of dry wine.

Ripe fruit preserves the aromas of the season in your own wine. We ferment with fruit, then separate the liquid and let the wine age.

What are we aiming for?

• A dry wine with a fruity character.

• Approximate strength: about 11.5–13.5% alcohol, depending on initial sugar and attenuation.

• About 10 l of liquid; the fruit takes up additional space.

• Fermentation with fruit: 2–3 days. Total fermentation: usually 2–4 weeks.

• Clearing and ageing: 4–8 months.

Timings and yield are approximate; measurements, clarity and taste determine each stage.

Ingredients

• 5 kg of ripe raspberries.

• Approximately 1.7–2.1 kg of sugar, adjusted after measuring.

• Approximately 5–6 l of drinking water, including syrup water.

• 1 whole sachet of ALCOMAT Fruit Wine Yeast HAT — 5 g.

• 1 whole sachet of ALCOMAT Nutri-Duo with vitamin B1 — 10 g.

• ALCOMAT Pectolase and PIRO Ferm — separate doses according to instructions, parameters and stage.

• To rehydrate yeast: 25 ml of water and 25 ml of prepared liquid.

Do not add 10 l of water to the fruit. The volume includes juice, water and dissolved sugar. Do not dilute solely to increase the amount of wine.

Equipment

• A food-grade fermenter of about 20–25 l for fermentation with fruit, with room for pulp and foam and a way for gas to escape.

• A fruit press or straining bag to separate juice from pulp.

• A clean tool for submerging the fruit cap during fermentation.

• A vessel fitted with an airlock for continued fermentation and smaller vessels matched to the volume during ageing.

• A hydrometer with a test cylinder and a thermometer.

• A pH meter and an acidity test kit.

• Scales and equipment for measuring additives accurately.

• A siphon tube and products for cleaning and sanitising equipment.

• Wine bottles and suitable closures.

1. Select and prepare the fruit

Choose sound, ripe, aromatic fruit. Remove mouldy, rotten and unripe fruit.

Remove stems, leaves and debris. Rinse briefly if necessary. Do not soak for long or grind seeds. Raspberries break down quickly, so fermentation with fruit is brief.

You may use frozen fruit without added sugar. Thaw in a clean vessel and keep all the juice.

2. Clean the equipment and crush the fruit

Clean and sanitise the equipment according to the product instructions. Gently crush the prepared fruit and keep the juice. Do not blend into a smooth purée.

Start by adding part of the recipe water: about 1–2 l, or about 3 l for rosehips. Keep the rest for adjustments and syrup. Cool boiled water before use. Do not boil the fruit.

3. Add PIRO Ferm and Pectolase

Mix the liquid, take a strained sample and measure pH. Add PIRO Ferm at a dose appropriate to its instructions and the must pH. Mix thoroughly. Do not automatically use the whole sachet.

Preferably allow about 12 hours before adding Pectolase, unless the label states otherwise. Keep the must covered and cool while waiting.

Add Pectolase according to its instructions. Observe the specified treatment time and temperature. The enzyme helps release juice and makes subsequent clearing easier.

Usually add yeast about 24 hours after PIRO, also following the enzyme instructions. Waiting alone does not remove an excessive sulphite dose.

4. Adjust water, acidity and sugar

Add water gradually, mix and measure the acidity of a strained sample. An approximate starting point is 6–8 g/l titratable acidity expressed as tartaric acid. Check your kit's units. pH and titratable acidity are different parameters.

If acidity is still excessive at the target volume, plan a separate correction or change of proportions rather than adding water without limits.

For sugar, aim for approximately 20–22 °Brix (gravity about 1.083–1.092). Dissolve sugar in a separate portion of liquid or in the allocated water; cool the syrup. Add gradually and check the result.

Sugar increases volume. Some juice and sugar remain inside the fruit pulp, so the reading is approximate. Mix before sampling.

5. Add nutrient and yeast

Bring the must to about 18–22 °C.

Dissolve the whole 10 g sachet of ALCOMAT Nutri-Duo in a small portion of must. Pour into the fermenter and mix.

In a separate sanitised vessel, combine 25 ml of water and 25 ml of prepared must at 25–30 °C.

Add the whole 5 g sachet of ALCOMAT Fruit Wine Yeast HAT and leave for about 20–25 minutes, following the product instructions.

Gradually add small portions of liquid from the fermenter to bring the prepared yeast closer to the must temperature. Pour in the yeast and mix gently.

Add nutrient to the must, not to the yeast rehydration liquid. Close the fermenter with an airlock and leave room for foam.

6. Ferment with the fruit

Maintain 18–22 °C, measuring the pulp temperature. Submerge floating fruit two or three times daily with a clean, sanitised tool to prevent drying.

Allow about 2–3 days from the start of active fermentation. Monitor temperature, aroma and gravity. Separate fruit earlier if it breaks down extensively, fermentation finishes sooner or excessive astringency develops.

7. Separate the liquid from the fruit

Strain through a bag or press gently. Let the liquid drain freely, then gradually increase pressure. Do not force pulp through or grind the seeds.

Measure the liquid. About 10 l is the target, but actual yield depends on fruit and pressing. Do not automatically top up with water.

Transfer to a fermenter with an airlock and room for foam. Once fermentation has started, do not restore the sugar-meter reading to its original value: alcohol changes gravity.

8. Let fermentation finish

Maintain a stable temperature of about 18–22 °C. If there are no signs of activity after 48–72 hours, check temperature and measure gravity. Falling gravity confirms fermentation.

After about two weeks, begin checking for completion. Gently degas the sample and account for the hydrometer's calibration temperature. Do not return the sample to the batch.

Take three readings at intervals of 2–3 days, keeping the batch at fermentation temperature. The result should remain unchanged and indicate completed fermentation.

In dry wine, gravity often falls below 1.000, but one reading does not confirm the end of fermentation.

If the reading stops significantly above the expected level, check for a stalled fermentation. Lack of airlock bubbles is not sufficient confirmation.

9. Rack and leave to age

After fermentation has finished and coarse sediment has settled, siphon into a clean, sanitised vessel. Do not draw up the sediment.

Minimise splashing and contact with air. Choose a vessel that leaves little headspace above the wine. Continue to use an airlock.

Adjust PIRO Ferm protection according to the product instructions, pH and free SO_2 level, if measured.

Store in cool, dark conditions for about 4–8 months. Rack again only when noticeable sediment forms. Ageing does not replace correction of excessive acidity.

10. Bottle the wine

Bottle when the wine is clear, fermentation has finished and its parameters are stable. Use clean, sanitised bottles and suitable closures. Minimise air contact.

This recipe produces a dry wine. For an off-dry or medium-sweet version, plan a separate sweetening stage and suitable stabilisation. Do not add sugar immediately before bottling without protection against renewed fermentation. PIRO alone does not guarantee protection of sweetened wine.

How can you estimate alcohol content?

If no sugar or water was added after the original reading, use this approximation:

Alcohol [% vol.] ≈ (original gravity − final gravity) × 131.

Example: (1.087 − 0.995) × 131 ≈ 12.1% alcohol.

With pulp fermentation, the result is approximate because some sugar and juice are released from fruit during fermentation. Use the reading taken after adjustments and before adding yeast.

Frequently asked questions

How do I prepare this fruit? Remove stems, leaves and debris. Rinse briefly if necessary. Do not soak for long or grind seeds. Raspberries break down quickly, so fermentation with fruit is brief.

Must the fruit be boiled? No. This recipe does not involve boiling fruit.

Can I use a blender? Gentle crushing is better. Purée is harder to press, and damaged seeds may increase bitterness.

The fruit is floating — is this normal? Yes. Gas lifts it. Submerge it two or three times daily.

Why limit fermentation time with the fruit? We want to extract aroma without unnecessary contact with disintegrating flesh, skins and seeds.

Must I add acid? Only after measurements. Do not base an addition on the sample's sweetness or astringency.

Do I use whole sachets of yeast and nutrient? Yes. Use the whole 5 g sachet of the specified yeast and the whole 10 g sachet of ALCOMAT Nutri-Duo. Measure other products separately.

Do I add all the sugar at once? Do not add it automatically. Add gradually and check measurements before fermentation.

Does 10 l of must mean adding 10 l of water? No. The volume includes juice or infusion, water and dissolved sugar. Fruit occupies additional space.

The airlock is not bubbling — has fermentation failed? Check gravity and temperature. Falling gravity confirms fermentation even if gas escapes through a leak.

How do I recognise the end of fermentation? Take three gravity readings at intervals of 2–3 days. They should be stable and show that the sugar has fermented. An unusually high result requires investigation.

Can I use a refractometer? Once alcohol is present, the reading needs appropriate correction. A hydrometer is easier for beginners.

Why is the wine not sweet despite added sugar? Yeast converted the sugar into alcohol. Sugar added before fermentation is for strength, not a guarantee of sweetness.

The wine remains cloudy — is it spoiled? Cloudiness alone does not mean spoilage. Give the wine time, assess its aroma and surface, and identify the cause before using another treatment.

Sediment has formed at the bottom — is this normal? Yes. Yeast and fruit components settle. Rack off noticeable sediment while minimising air contact.

Mould has appeared on the surface. What should I do? Do not taste or bottle this batch — discard it.

What affects flavour most? Ripe fruit, suitable acidity, moderate strength, gentle pressing and patient ageing. Record additive quantities and measurements to reproduce the result.

Making wine is enjoyable and preserves the aromas of the season. Your first successful batch can begin a rewarding hobby.