Pear perry

Recipe No. 20 — for 10 l of must and about 8.5–9.5 l of finished drink.

Making cider is an excellent way to learn about fermentation. We use natural fruit sugar, without adding sugar or water to the main batch.

What are we aiming for?

A still or gently sparkling drink. Approximate strength 4–6.5%, depending on juice and attenuation. Fermentation usually takes 2–4 weeks; clearing usually 4–8 weeks. Carbonation takes another 2–3 weeks. Timings and yield are approximate.

Perry may retain a perception of sweetness due to sorbitol; we do not plan to leave fermentable sugar.

Ingredients

• 18–25 kg of pears to obtain 10 l of juice.

• A whole 5 g sachet of Cider Yeast.

• A whole 10 g sachet of ALCOMAT Nutri-Duo.

• 25 ml of water and 25 ml of prepared juice for rehydration.

• For carbonation only: sugar measured for the actual volume before bottling.

• Pectolase and PIRO Ferm according to instructions and pH.

• For pears: CIAC only if measurements show a need for acidification.

Measure other additives separately. Do not add water or sugar to the main batch.

Equipment

• A food-grade fermenter of about 15 l for 10 l of prepared liquid, with a lid and airlock; leave room for foam.

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

• A fruit mill for preparing fruit before pressing.

• 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.

• For still drinks: bottles and closures suitable for non-carbonated drinks. For sparkling drinks: only bottles and closures designed for carbonated drinks.

1. Select the ingredients

Choose sound, ripe, aromatic fruit. Discard mouldy and rotten fruit completely. Wash and remove stalks and debris. Peeling is unnecessary. Avoid crushing seeds. Blending varieties gives more scope for balancing flavour.

2. Clean the equipment and prepare the liquid

Clean and sanitise equipment according to the product instructions. Mill fruit without blending into purée and press gradually. Retain juice and remove larger pulp pieces. Measure 10 l; if short, press more fruit rather than adding water.

3. Measure the parameters

Record original gravity, for example 1.045. Account for the hydrometer's calibration temperature and do not return the sample to the batch.

Measure pH and acidity. Approximate pH range: 3.2–3.8. pH and titratable acidity are different parameters. At higher pH, consider blending with more acidic juice; for perry, CIAC may be added in small measured portions with repeated measurements. Do not acidify automatically.

4. Prepare the juice before adding yeast

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.

5. Add nutrient and yeast

Bring the must to about 18–20 °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 Cider Yeast 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

Maintain 18–20 °C. Avoid sunlight and temperature fluctuations. Foam and cloudiness are natural. After 48–72 hours without signs of activity, measure gravity and check temperature. Ferment juice alone, without crushed fruit.

7. Check that fermentation has finished

Maintain a stable temperature of about 18–20 °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.

Do not automatically require gravity below 1.000. Pear juice components, including sorbitol, may affect the reading and perceived sweetness. A slightly sweet taste alone does not confirm completed fermentation.

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

If attenuation is uncertain, do not prepare the drink for carbonation.

8. Rack and leave to clear

Rack off sediment into a sanitised vessel with little headspace and an airlock. Minimise splashing. Clearing usually takes 4–8 weeks. Measure gravity again before bottling. New activity or unexplained gas release requires postponing bottling.

9. Choose still or sparkling

Bottle the still version without priming sugar after confirming stability.

For carbonation, measure the actual volume. Use a carbonation calculator accounting for temperature and the desired carbonation. For gentle sparkle after fermentation at 18–20 °C, an approximate starting point is 4 g of sucrose per litre: 9 l = 36 g.

Dissolve sugar in a little boiled water, cool and gently but thoroughly mix into the whole batch in a sanitised vessel. Do not add extra sugar or juice for flavour.

10. Bottle and leave to carbonate

Use only bottles designed for carbonated drinks and leave headspace appropriate to the closure. Store for 2–3 weeks at 18–20 °C, then move to a cool place. Chill before opening.

Do not use yeast-inhibiting agents before carbonation. Cooling alone does not permanently stop fermentation. Yeast sediment is natural; pour slowly.

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: (1.045 − 0.998) × 131 ≈ 6.2% alcohol.

The result is approximate. Use the measurement taken after adjustments and before adding yeast.

Priming sugar slightly increases alcohol strength.

Frequently asked questions

Do we add sugar to the main fermentation? No. We use the sugar in the juice. Added sugar is only for carbonation.

How can I serve a sweeter drink? Add juice or syrup directly to the glass, not to sealed bottles.

The drink has not carbonated — should I add more sugar? Do not add another dose without identifying the cause. Check temperature and closures; give the yeast more time.

Is bottle sediment normal? Yes, with natural carbonation. Chill and pour slowly.

Must perry fall below 1.000? Not always. Sorbitol affects sweetness and gravity. A stable high result may also indicate stalled fermentation; investigate before carbonation.

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.

Does 10 l of must mean adding 10 l of water? No. Juice is the basis of this recipe. Do not add water to the main batch.

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 drink not sweet despite sweet juice? Yeast converted juice sugar into alcohol. This recipe does not include sweetening before bottling.

The drink remains cloudy — is it spoiled? Cloudiness alone does not mean spoilage. Give it time, assess 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? Good ingredients, cleanliness and stable temperature. Serve at about 8–12 °C. Record varieties, measurements and additives. Making cider is enjoyable and can begin a rewarding hobby.