# Microbiology online

## Elderflower "champagne" - An elegant, sparkling fermented drink

The fragrant flower heads from the elder tree can be used to make a refreshing summer drink called elderflower "champagne". The elder is a common native tree found growing in mixed deciduous woodland, marshy woodland, thickets, clearings, hedgerows and gardens. It flowers in late spring producing an off-white flower, which grows to approximately 5 to 6 mm in size. The best time to pick the flowers is on a dry warm day when they are in full bloom. It is important that the flowers are not collected from busy roadsides where they may be exposed to air pollution. The addition of yeast is not required as wild yeasts that occur naturally on the flowers ferment the elderflower "champagne".

### Dave Roberts' recipe for Elderflower "champagne" This recipe makes 5 litres (9 pts) Ingredients

2 large heads of fully open elderflowers 30 ml white wine vinegar 1 large lemon 680 g sugar 4.5 litres cold water



#### Method

- 1. Shake flower heads to remove any insects. The flower heads can be washed before use in cold water and then patted dry on kitchen paper. Care must be taken not to bruise the flower heads, as they are very delicate.
- 2. Pick the florets from their stalks and put them into a suitable container, such as a plastic bucket with a loose-fitting lid. It should have a capacity of at least 7 litres.
- 3. Thinly pare the lemon (no white pith) and cut up the parings into fine particles.
- 4. Juice the lemon and add the parings and the juice to the bucket.
- 5. Add the cold water and the vinegar then stir in the sugar until it has dissolved.
- 6. Cover and leave in a warm place for 24 hours.
- 7. Strain the liquid and pour into suitable bottles leaving a 50 mm gap.

NB: Suitable bottles are screw-topped 1 litre bottles that held carbonated drinks, like tonic water etc. Avoid bottles with shoulders (like red wine bottles). If you use glass bottles, they must be strong enough to withstand the pressure that will build up during fermentation.

8. Put the caps on tight and lay the bottles on their sides somewhere where the temperature will stay reasonably constant at around 21 °C. After 2 weeks move them to a cool store. Serve cool, but not cold. Drink the elderflower "champagne" within 4 weeks.

NB: The bottles are laid on their side to minimise damage from flying bottle tops should the brew explode. Take care when opening the bottles. You can take the top off under a wet tea-towel and you should at least open them over the sink. They have a tendency to be volcanic when first opened.

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The fermentation of elderflower "champagne" relies on the natural flora of the plant material but Dave tells us that the yeasts in the sediment at the end of the process are not the same as the ones that can be isolated from the flowers at the start. If you have the facilities, you might like to try isolating the yeasts from another elderflower floret. Compare them with the yeast from the fermentation bin or the fine sediment that will accumulate in the bottles. You can also check to see whether the yeast can be found on the lemon skin.

Risk assessment: Before carrying out any microbiological investigation a risk assessment must be carried out. See *Basic Practical Microbiology: A Manual*. ISBN 0 95368 383 4. Published by the Society for General Microbiology.