Making Cider at Home

Traditional cider has been made for hundreds of years as a way of preserving and making use of apple juice.
These instructions are for the many people who have come to our community juicing days and asked us how to make cider at home with the juice from their apples.

Making a good traditional cider takes patience, it is not a quick process and will take at least 6 months
Remember; alcohol by Christmas, drinkable by Easter, beautiful by summer

The process is very simple and the only ingredient you need is fresh apple juice, but in order to make a good cider you need to bear in mind a few key factors:

- **APPLE JUICE** The best tasting cider comes from using a good mixture of different apples, both cookers and eaters, for the juice**.** Don't be tempted to pick the apples too early, leave them on the tree as long as possible so that they develop more flavour and sugars.
- **HYGIENE** The first stage is to make sure that your container for fermentation is sterilised, using a proprietary sterilising solution sold for winemaking, follow the instructions carefully, and then rinse your fermentation container thoroughly with clean water. Cover the neck of the container with cling film as soon as you finish rinsing
  This cleaning is very important as the sterilising solution removes any potentially harmful bacteria which may have found a home in the stored fermenting container and the rinsing will remove the residual solution so that it does not interfere with the natural yeasts, in your apple juice, needed for fermentation. The cling film stops new microbes getting in
  The cleaning of your fermentation container should be done immediately before bringing it to the community juicing for filling with apple juice. Remember to bring your clean airlock too
- **EXCLUDE AIR** When you bring your fermenting containers to the community juicing we will try to fill them right up to the neck so that as little air as possible is in contact with the surface of the juice. Air contains a whole host of floating bacteria and yeasts that can spoil your cider. Once the container is full put the bung and airlock in straight away to stop any contamination. All you need to make cider is now in the container. Though you will need some fresh juice in plastic containers (to freeze) to use to 'top-up' when racking your cider later

FERMENTATION This is the process which converts the fruit sugars into alcohol. There are natural yeasts present on the apples, that have been juiced, and it is these yeasts that will turn your juice to cider. There are hundreds of different yeasts in nature but the ones that produce good tasting cider thrive at a slightly cooler

temperature than others. The filled fermenting container should ideally be kept at a stable temperature of between 13 and 16 degrees centigrade. In an average house this might be the cupboard under the stairs or a spare bedroom. The yeast will work steadily at this temperature and in a week or so you will see bubbling in the airlock confirming that fermentation is underway (keep the airlock clean and topped up with water). This initial fermentation should take around 3 months. You will know when it is finished because the airlock will stop bubbling. Check the specific gravity, using a hydrometer, it should have dropped to around 1005 or lower
For those of you who come to our community juicing at the end of October this stage should be reached around Christmas. If your cider is in a cool outhouse it may even stop altogether if the temperature falls too low but will start up again when the temperature rises. This is where a hydrometer is useful to check whether the cider has stopped because all the sugar has been used up or because the temperature has gone too low.

FIRST RACKING

Once the initial fermentation has finished and all the sugars that were in the apples have been converted to alcohol it is time to remove the raw cider from the lees (dead yeast cells and sediment). You might be tempted to taste it at this stage but it is not ready and is still very 'rough' – the original gut rot!

To rack the cider, clean another fermentation container as before and also thoroughly clean your syphon tube, good hygiene is very important throughout the cidermaking process to prevent contamination. Carefully syphon off the clearer liquid into the new container leaving the sediment behind. Don't worry if the cider looks a bit cloudy, this is normal. You will need to top up with some fresh apple juice to bring the liquid level up to the neck of the new container. If you are using juice from the freezer ensure it reaches room temperature before adding. Put in a clean bung and airlock then put the cider back into your cupboard or spare bedroom to allow the secondary fermentation to take place. This is when some of the rough tasting malic acid is converted to the smoother tasting lactic acid by naturally occurring lactobacilli. The added apple juice will have provided a small boost of sugar which feeds the remaining yeast cells so you should notice a small amount of bubbling through the airlock.

Over the next 3 months the cider will continue to clear and the flavour mellow and by the end of March it is time to take that first taste.

SECOND RACKING AND BOTTLING

By the end of March your cider should have cleared, and the flavour mellowed so it will be time to rack it again or alternatively just bottle it.

The cider at this stage is known as ‘hard’ cider because all of the natural fruit sugar has been turned into alcohol, so the result is a very ‘dry’ cider which is possibly not sweet enough for your taste. If you simply add more sugar the residual yeast cells will begin to feed on this and multiply to make more alcohol and carbon dioxide, the basis of sparkling cider, but this doesn’t give you a sweeter drink and can be very dangerous if the resulting pressure is too much for the bottle. At the fruit project, for our still ciders we add a small amount of sugar to achieve the desired level of sweetness then pasteurise the cider to kill off any residual yeast cells. Pasteurisation of cider is difficult to manage in a domestic setting without equipment which can hold the liquid at an appropriate temperature for long enough without boiling off the alcohol, so most home cider makers choose another method for sweetening their brew.

The simplest option is to bottle the ‘hard’ cider and then add a small amount of either fresh apple juice or lemonade to your glass when you drink it. This allows you to achieve the flavour and sweetness you want without any extra effort.

If you want to sweeten your cider before bottling then you will need to either kill off the remaining yeast cells chemically, using metabisulphite and sorbate (sold by winemaking shops) or use a sweetener which cannot be metabolised by the yeast cells. Both of these options are outside our experience, but instructions are available in books or by searching the internet.

Yet again hygiene is important when bottling your cider, so the bottles and caps should be cleaned then either put through a dishwasher cycle or sterilised in an oven in the same way you would use for jam jars.

Once bottled and sealed the cider should keep for a year or two and will continue to mellow in flavour as it is stored.