

# MAKING APPLE JUICE IN SCHOOLS

This a 'how to' guide for making fresh apple juice in schools, for schools with or without juice pressing equipment.



Pressing fresh apple juice is a fun activity popular with all ages. It is a great, interactive way to make use of a large number of apples and 99.9% of children will love the sweet, golden, natural juice, even those that previously said 'I don't like apple juice' (after probably only ever trying juice from concentrate). This activity does require some specialist equipment and adult supervision, but is well worth the effort of acquiring the equipment. If you're holding an event such as 'Apple Day' or a school fair, this makes a great hands-on activity for everyone to get involved in and you'll have people queuing for the delicious juice...why not charge a small fee per cup to raise funds!

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## EQUIPMENT: TO BUY OR TO BORROW?

Despite being wonderfully robust and simple to use, good juice pressing equipment is not cheap. The two main things you'll need are the **press** and the **scratter** (a machine that crushes the apples prior to pressing). A good quality press, and you really don't want to skip on quality for this type of machinery, will range from £200-£500, depending on size, whilst a scratter will cost around £250.

**Vigo** make good quality equipment that will last a lifetime if looked after, so this would certainly constitute an investment, especially if you plan to create an enterprise project form juice, or even cider! <http://www.vigopresses.co.uk/AdditionalDepartments/Best-Sellers-/Presses>

Equipment for a school juicing project must score highly in the 'all time most fundable ideas' rankings! Why not seek funding from local businesses or apply for a small grant such as the lottery awards for all?

<https://www.biglotteryfund.org.uk/global-content/programmes/england/awards-for-all-england>

Other options

Why not see if another local school or other community group would be interested in sharing the costs of the equipment so that its use can be shared? In reality, you'll only be pressing once or twice a year, so it'll be sitting idle for long periods of time anyway.

Find a local group who may have equipment they could lend or rent to you. They may even come and show you how to use it and help run the activity on the day – in return, perhaps they could hold a stall at your event? Try contacting local harvest groups (the Abundance network), Transition Town groups, community orchard groups etc.

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## WHAT YOU'LL NEED

- An apple press with a net bag (included with purchase)
- A scrapper
- 2-3 large plastic jugs
- Some large chopping boards
- Some sharp knives
- A lot of apples!
- Some plastic, flexible 'trug' buckets and heavy duty bin liners for the leftover 'pomice' (mashed apple waste)
- A strong and sturdy table or work surface. You may need to consider optimal height for this depending on how old the children are (so they can reach the equipment to participate).
- Safety goggles and aprons (optional – to prevent apple juice splashes during the apple crushing! The juice turns brown as it oxidises, which isn't good news for white/light uniform shirts).

## INSTRUCTIONS – STEP BY STEP

Pressing is really a four stage process that involves washing and quartering the apples, crushing them (traditionally known as scratting) and then pressing them to extract the juice. You'll need to lay out your set up to make this work smoothly, and ensure you have the optimum number of people carrying out each task (you can definitely have too few or too many people for these!). Having people allocated to these different jobs means things will flow smoothly and you can have a constant turnover of people dipping in to have a go at turning the scrapper handle or turning the press. A production line style set up works well, laid out in the following order:

## 1/. WASH THE APPLES (1 PERSON)

This is particularly important if the apples are windfall and have been sitting on the ground, but it is good practice to rinse all apples before juicing. Keep a large plastic container like a plastic 'flexi trug' filled with water and simply tip batches of apples in and splash them around before putting them into another container for the apple choppers.

## 2/. QUARTERING THE APPLES (1-2 PERSON)



Whole apples are too big for the scatter teeth to grab and penetrate the fruit (think dog trying to bite football) so you need to slice each apple into four quarters. You'll need to use a sharp knife for this, so ensure that any pupils doing the slicing have been taught a safe technique and are supervised. If you're expecting it to get busy with lots of people wanting to try the juice, it can be useful to have two people slicing. These

pieces of apple should be put into a large plastic bowl so that the people on scatter duty can add them to the scatter as and when they need them.

## 3/. CRUSHING OR 'SCRATting' THE APPLES (2-3 PEOPLE)

Position a plastic jug or other collection vessel below the spout of the press (you won't get much juice flowing until the next step, but by doing this you'll be sure to capture every drop!).

The usual set up is for the scatter to be safely positioned on top of the press's barrel (lined with the fitted mesh bag) so that the shredded apple falls straight into the press. The scatter is a heavy piece of kit, with potentially dangerous moving parts, so you must ensure that it won't fall off and injure someone. Have two people hold onto the handles at each end to keep it steady while a third turns the handle. Alternatively, an adult can hold the handle at one end with one hand whilst turning the handle with the other (this may take a little practice!).

Lifting the scatter on and off the press requires an adult. Special attention must be taken when ensuring no fingers go anywhere near the rotating teeth when in use (and otherwise!). A 'NO HANDS' rule is crucial as people will be wanting to look over the top of the scatter to see the apples being macerated and there is a temptation to put hands over the lip while leaning in. The same applies for dislodging chunks of apple that become trapped and don't go through the teeth. If this happens, tell the scatter operator to stop and step back from the machine and use a stick to dislodge the apple before continuing.

## 4/. PRESSING (2-3 PEOPLE)

**Important:** the press should be fixed to the desk/table using 'G'-clamps on the feet. An adult should provide additional support by holding onto the press while the handle is being turned.



Once the barrel is filled with shredded apple, ask everyone to stand back and carefully lift the scatter off and put it down somewhere safe (ensure no children fiddle with this whilst it's down – the teeth could still cause injury). Fold the top of the mesh bag over the top of the shredded apple and carefully swing the top of the press round and attach the cross beam and tighten the wing nut. Ensure that your jug is positioned correctly underneath the press, ready for the golden flow! (Remind the children about its whereabouts and ask them to be careful not to knock it when pressing).

People can now take turns turning the handle. Younger and less able children can start as the beginning is easiest. As the apple becomes more compacted it becomes physically harder, so stronger/older people can take over. As it becomes harder to turn, more care must be taken to ensure that the whole press does not start to shift and come free of the clamps.

Don't over-press as it may become jammed. Once the wooden slats begin to creak and the juice starts to come out really frothy it's time to stop!

## STEP 5 – DRINKING!

Time to reap the fruit of your labour! When one jug is almost full, switch it with a second to ensure no juice is lost. Ask people to queue sensibly and hand out cups. Pour each person a sample, starting with a small amount to ensure it goes around – they can always come back for seconds if there is enough!

## CLEANING

**Pomice:** Juicing produces large quantities of apple waste, so you should plan for this. The ideal situation would be to feed this to animals such as pigs – if the school is lucky enough to have a farm then this is the ideal solution. Other options could be a local farm, city farm, or stables – someone may well be up for coming to pick up this valuable source of feed.

Another option is to compost this waste, but do bear in mind that apples are acidic so huge quantities may need to be spread around so as to not overload any one compost heap or bin.

**Equipment:** It is important that all the equipment used gets a good clean – the acidity of apple juice can damage the press and scatter if left to fester for another season. A hose is the ideal solution; give it all a good blast on the playground. Take care to get all the bits of apple out of the nooks and crannies – something like a twig or piece of wire is useful for de-clogging the scatter teeth. Ensure it is all dried before storing/returning.

## PRESERVING THE JUICE

This resource was made for schools who don't have access to sterilising equipment.

The fresh juice is best drank as soon as it is pressed – usually you'll find that it will be gulped down as soon as it is pressed anyway – people will be queuing for more!

It can however be kept for up to three days in a fridge, so if you have staff meeting coming up, put some aside and share the love! This is an easy way to generate enthusiasm for your orchard project!

After three days, you're juice may start to become fizzy as fermentation begins! Beware of any closed containers blowing up!



The simplest way to preserve the juice for longer is to freeze it. You can use clean empty plastic milk bottles, simply fill them with juice (leaving a little space for expansion) and put them in the freezer. Another way is to make juice 'bricks' which can be stacked easily, making better use of freezer space. Line juice or milk cartons with freezer bags, fill with juice and knot the top. These can then be stacked in the freezer. Juice stored like this can last up to one year and makes a delicious treat shared in the out in the orchard on a warm summer's day!