

Benefits of Wood Vinegar

The production of wood vinegar is cost-effective, takes only one day and offers a versatile range of beneficial applications that are gentle on the environment:

- **Use charcoal** product for cooking. Charcoal made from wood vinegar produces cleaner, safer smoke.

For the following applications, dilute raw wood vinegar with water in the indicated ratio.

- **Kill pests** by applying a 1:20 ratio to the soil
- **Kill weeds** by applying a 1:50 ratio to the soil
- **Prevent stems and roots from rotting** by applying a 1:100 ratio
- **Prevent pests and mold while accelerating plant growth** by applying a 1:200 ratio to the soil
- **Prevent plant lice** by applying a 1:400 ratio to the plant
- **Enhance fruit growth** by applying a 1:500 ratio to forming fruit



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Wood Vinegar





Refer to the Wood Vinegar Video
for more Information.

Why Wood Vinegar?




Wood vinegar is natural, gentle on the environment, and cost-effective. The materials needed to produce wood vinegar, such as bamboo, clay, and wood, are readily available in even the most remote areas of Asia.

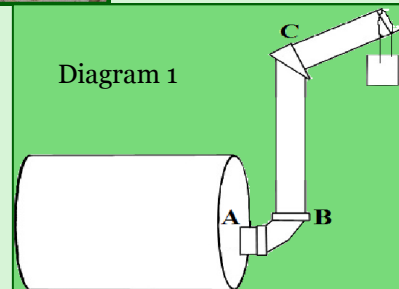
Making wood vinegar is an exciting way to teach students about practical science topics. This knowledge can help them prosper in their future careers.

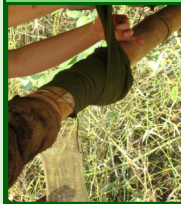

"With wood vinegar, we can enhance our crops and use the knowledge in a future career!" -Aim-usa B.

<p>Step 1 (Day 1)</p> 	<p>To build the kiln:</p> <ul style="list-style-type: none"> • Cut the lid off of one end of a 200 L metal tank. • Cut a 20 cm x 20 cm square hole at the bottom of the lid as shown in the picture to the left.
<p>Step 2 (Day 1)</p>	<p>Cut a 10 cm diameter circular hole on the other side of the tank at point A in Diagram 1.</p>
<p>Step 3 (Day 1)</p>	<p>Attach an asbestos joint to the 10 cm hole as shown in A of diagram.</p> <p>Then, attach an asbestos pipe to the joint as shown in B.</p>
<p>Step 4 (Day 1)</p> 	<p>Make a bamboo pipe by hollowing out a 4 m bamboo stalk with a metal pole.</p> <p>Cut one end of the pipe at an angle.</p>

14 Simple Steps to Making Wood Vinegar in 3 Months

<p>Step 5 (Day 1)</p> 	<p>Cut a notch 30-50cm away from the angled end of the pipe. This notch will allow wood vinegar to drip out later on in the process.</p>
<p>Step 6 (Day 2)</p> 	<p>To produce charcoal and wood vinegar:</p> <ul style="list-style-type: none"> • Load three short logs in the kiln horizontally to promote air flow. • Stack logs from smallest to largest and perpendicular to the 3 short logs as shown in the picture to the left. This allows all logs to fully burn.
<p>Step 7 (Day 2)</p>	<p>Seal the kiln lid in place with a layer of clay about 5 cm thick. Proceed while the clay is wet.</p>
<p>Step 8 (Day 2)</p>	<p>To build a fireplace, put 4 bricks around the 20 cm square hole in the lid. Seal with clay.</p>
<p>Step 9 (Day 2)</p> 	<p>Start and maintain a fire slightly inside the brick fireplace.</p> <p>Wait approximately 2 hours until a strong white smoke emerges from the asbestos pipe.</p>



<p>Step 10 (Day 2)</p>	<p>Attach the angled end of the bamboo pipe to the asbestos pipe at point C.</p> <p>Seal with clay, making sure the notch is facing downward.</p>
<p>Step 11 (Day 2)</p> 	<p>Wrap the length of the bamboo pipe with cool, damp cloths to aid in the condensation of raw wood vinegar.</p> <p>Hang a collection bottle at the notch to capture the product.</p>
<p>Step 12 (Day 2)</p>	<p>Maintain the fire and dampness of the cloths. The raw wood vinegar is finished producing when the droplets turn black, indicating that tar has formed.</p>
<p>Step 13 (Day 2)</p>	<p>To make charcoal:</p> <ul style="list-style-type: none"> • Remove the collection bottle and the bamboo pipe. • Place a small clay pot on the opening of the asbestos pipe and seal any remaining openings with clay. • Stack two bricks in front of the entrance and seal with clay. • Wait 8 hours for charcoal to form.
<p>Step 14 (Day 2-92)</p> 	<p>To purify raw wood vinegar:</p> <ul style="list-style-type: none"> • Let the wood vinegar sit for 90 days and settle into 3 layers. • Extract the middle layer of wood vinegar with a syringe. • Dilute the wood vinegar depending on its purpose.