



Comfrey Tea

Passive Liquid Soil Amendment



OBJECTIVE	CATEGORY	DIFFICULTY	GROUP SIZE	TIME
<p>Create a natural soil amendment packed with nutrients and dense in potassium, phosphorus and nitrogen for annual vegetable crops, perennial plants and trees</p> <p>Application rate: apply tea and leaf mash up to one month before harvest</p>	Composting and Farming	Easy	10-16 people	10-20 days

MATERIAL LIST	TOOLS & EQUIPMENT
Enough comfrey (<i>Symphytum officinale</i>) leaves to fill a 5 gallon bucket $\frac{3}{4}$ full (~100 loosely packed leaves)	5-gallon food-safe bucket with lid that does not seal [OPTIONAL: Use a bucket with a spigot on the bottom to allow you to pour the tea out over time]
~ 4 gallons of dechlorinated water OR rainwater	Pruning shears
Dechlorinated water OR rainwater to dilute finished tea	A brick or block of wood
	Cheesecloth/burlap to strain the leaves and/or a strainer [OPTIONAL: A dowel to suspend the cheesecloth in the mixture]
	Sprayer/mister and/or a watering can
	Gloves, brushes, water, rags for cleaning

HOW TO
<p>Making the comfrey tea:</p> <ol style="list-style-type: none"> Using gloves and pruning shears, harvest comfrey leaves from an established plant(s), optimally before the plant flowers in mid spring; your pruning will allow the plant to keep generating new leaves throughout the season. <ol style="list-style-type: none"> When cutting each leaf, make your cut at the base of each stem; this saves the plant energy. Prioritize the largest, most mature leaves at the base of the plant that make up the outer ring of leaves. This allows the plant to continue growing upwards from the center, ensuring a longer harvest window. It is okay if the leaves are bruised or old-looking. Harvest no more than one third of the leaves and stems from the plant. Separate the stems from the leaves. Discard the stems into your compost bin. Stack the harvested leaves in the bucket and put a brick on top of the leaves to weigh them down in the bucket. [OPTIONAL: Wrap leaves in a cheesecloth and use a dowel to suspend the cheesecloth in the mixture] Add dechlorinated water [city water that has stood for 24 hours, allowing the chlorine to evaporate off] or rainwater to cover leaves so they are fully immersed. Cover the bucket, but do not seal. Your tea will begin to ferment, and will need a lid that keeps contaminants out but still allows the mixture to off-gas. Label the date you make this tea. Stir every 2-3 days. Leave this tea to ferment for 10-20 days. Longer steep times will result in a stronger mixture. After 10-20 days you can begin application of tea on your plants. <p>Application:</p> <ol style="list-style-type: none"> Strain the leaves out of the tea. <ol style="list-style-type: none"> FOLIAR: Dilute up to 15 parts of water to 1 part tea and spray/mist directly onto the leaves of the plant you are fertilizing. <ol style="list-style-type: none"> ESTABLISHED PLANTS: Foliar spray can be less diluted - 7 parts water to 1 part comfrey tea. ROOTS: For root feeds, you can use it undiluted as a drench. Apply with a watering can onto soil. Use the spent leaves as a green manure for your plants. Place around the base of your growing plants (see note below). Tea will last for a few months if stored in an airtight container. Skim off any mold before diluting and applying.

COMFREY PROPERTIES	
Physical Characteristics	<p>Perennial plant that grows up to 2'. It has purple flowers that bloom in May.</p> <p>It is a great pollinator plant and excellent source of forage for bees. It grows in sun or shade and does well in average soil.</p> <p>Please note: Comfrey can be invasive and the leaves may cause skin irritation.</p>
“Dynamic accumulator”	<p>Comfrey is called a dynamic accumulator. This plant draws minerals from deep underground, through its tap roots up into the leaves. It is rich in phosphorus and potassium (primary plant macronutrients), so it is a very good amendment for fruiting plants such as tomatoes, cucumbers and peppers. It also supplies manganese, calcium, iron and cobalt necessary plant micronutrients.</p>
Medicinal Uses	<p>Caution: the Food and Drug Administration has not approved the internal consumption of comfrey tea, do not take it internally. Comfrey contains pyrrolizidine alkaloids which harm the liver and other major organs.</p> <p>All parts of the comfrey plant have been used by people medicinally. Roots can be decocted with honey and used as a cough medicine. Poultices made of leaves have been used to reduce swelling/mastitis in nursing mothers. It has also been applied in poultice form to sprained joints.</p>

COMFREY TEA PROPERTIES	
Antifungal properties	<p>As a foliar spray (application directly to the leaves), it has been found to slow the growth of powdery mildew spores on leaves.</p>
Comfrey leaf “mash”	<p>Apply the mash of strained out comfrey leaves after the tea has finished brewing to your fruiting plants at a ratio of 15 parts water to 1 part comfrey mash.</p>
Compost-related info	<p>Fresh leaves can be used as a mulch/top dressing to prevent weeds and release nutrients as it decomposes (green manure mulch). Place around the base of the plants or bury the spent tea leaves 2” deep. This works well for tomatoes and potatoes. DO NOT use lettuce or spinach, as they will go to seed quickly because of the nitrogen boost. DO NOT apply on carrots or root veggies because there is too much potassium for these crops.</p> <p>Alternatively, the spent mash can be used as a compost activator. Add to your compost heap for a nitrogen boost, this additional nitrogen will “waken” bacterial and soil organisms and speed up the decomposition process.</p>