Posse+Plus, Wood County Texas

Pine Trees for Survival

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Pine Tree Identification

Here in East Texas, there are three common species of pine trees all of which can be used for food, medicine, and fire. They are the short leaf pine, loblolly pine, and long leaf pine.

The loblolly pine is the most common pine tree in East Texas. Needles, seeds, and the inner bark (cambium layer) are edible. Trees can reach a height of over 100 feet.

The easiest way to distinguish between the types of pine trees is by the length of the pine needles.

The short leaf pine has needles that are between 1.75 and 4.5 inches. The loblolly pine needles range between 5 and 10 inches. Long leaf pine needles are greater than 10 inches.

Long Leaf vs Loblolly

Short Leaf vs Loblolly

Long Leaf Pine Cone

Short leaf pine, loblolly pine, and longleaf pine can all be used interchangeably in the following examples. When large enough, pine nuts can be gathered and eaten raw or roasted.

Pine Needles

Green needles can be cut into smaller pieces and used to make pine needle tea which is high in vitamin C. Steep a handful of green needles for 5-10 minutes. If you steep them any longer the vitamin potency will be reduced. Chopped needles can be used like rosemary.

It is claimed that one cup of pine needle tea can contain four times more vitamin C than a glass of orange juice and also contains significant amount of vitamin A. Pine teas also contain beneficial antioxidants which can reduce heart disease, and lower blood pressure.

As a note of precaution some pine needles may contain phytoestrogen that has been known to cause miscarriages in cattle and pregnant women are advised to avoid them.

Pine needles can be used to make a soft, warm, and dry bed.

Pine needles can be combined with white vinegar and left to soak for a few weeks to create a homemade cleaner and disinfectant. This mixture can also be topically applied for minor bumps and scratches to prevent infections.

Pine tree needles can be placed around plants and trees to prevent weed growth and moisture loss. As they slowly decompose the pine needles will provide vital nutrients to the plants.

Dried pine needles are an excellent fire starter. The natural oils inside them will cause them to burn very quickly to start fires that include other flammable longer burning materials.

Pine needles are added into salves for skin care because it is an astringent reducing pore size and fine wrinkles.

Pine needles added to homemade bath salts can help with headaches, soothe frazzled nerves, relieve muscle pain, and treat skin irritation. A pine needle hair rinse can be used to treat dandruff.

Pine needles are also antibacterial, antifungal, and can be used as an expectorant when combined with honey.

A tan or green dye is obtained from the needles. The needles contain a substance called terpene, this is released when rain washes over the needles and it has a negative effect on the germination of some plants, including wheat. That is why few plants grow well under pine trees.

What to Know About Pine Needle Tea

https://www.webmd.com/diet/what-to-know-pine-needle-tea

Medically Reviewed by Jabeen Begum, MD on November 11, 2022
Written by Alyssa Anderson

Reports indicate that pine needle tea can cure even the most severe cases of scurvy and can protect people who are at risk for developing this condition.

Other potential health benefits are associated with the compounds in pine needle tea, but none have been verified in human subjects. These possible benefits include:

- ***Antioxidant properties.*** *Laboratory-based experiments have demonstrated that some of the chemicals in pine needles may protect your body from free radicals that can damage your cells.*
- ***Anticancer properties.*** *Research with cell lines and animals has found positive effects on cancer cells, but these have not been verified in human subjects.*
- ***Antimicrobial effects.*** *One study that focused on Cedrus deodara found antimicrobial activity in laboratory-based experiments on water-soluble extracts.*
- ***Anti-aging effects.*** *A study found that some of the molecules in pine needles can bind to a particular receptor that affects your metabolism. This receptor is also known to have anti-aging effects.*
- ***Heart protection.*** *This is associated with the presence of proanthocyanidins, which have been found at least in Pinus densiflora.*
- ***Immune system modulation.*** *This is also associated with proanthocyanidins, which have been found in Pinus densiflora.*

How to Weave a Pine Needle Basket

https://www.motherearthnews.com/diy/weave-a-pine-needle-basket-zmaz97aszgoe/

Weave a pine needle basket by coiling needles from the forest floor to participate in the Native American art of pine needle basketry.

Pine Pollen

The picture is of loblolly pine male flowers just before pollen release. All of us have experienced the coating of pine pollen on everything in early spring.

These flowers do not become pine cones. Their purpose is to release pine pollen.

Pine pollen contains androstenedione. Androstenedione is an anabolic steroid and is converted in the human body to testosterone, estrogen, and other hormones. In fact, some Indian tribes gave their warriors pine pollen just before

battle to boost their fighting ability. Pine pollen is about 25% protein and the protein is complete. It contains all the amino acids needed for human consumption and health.

Pine pollen can be combined with wheat flour to make bread and cookies. Use one part pine pollen to three parts wheat flour.

Roll over image to zoom in

Pure Pine Pollen Powder, 6 Ounce, Wild Harvest an Broken Cell Wall, Supports Immune System Health, Boosts Energy, Antioxidant & Androgenic, No GMOs, Vegan Friendly

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Item Form	Powder
Brand	Micro Ingredients
Age Range (Description)	Adult
Diet Type	Vegan
Material Feature	Gluten Free

About this item

- Pure Pine Pollen Concentrate Powder, 6 Ounce, Wild Harvest and Broken Cell Wall, No GMOs and Vegan Friendly.
- Enhance Stamina, Endurance, Strength, Internal Circulation and Joint Health.

The Potential Effects and Use of Chinese Herbal Medicine Pine Pollen (*Pinus pollen*): A Bibliometric Analysis of Pharmacological and Clinical Studies

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8318335/

The pharmacological studies suggested that pine pollen had multiple functions, such as immune regulation, antiaging, antioxidation, liver protection, inhibiting tumor cell proliferation, inhibiting prostate hyperplasia, antifatigue, lowering blood glucose, lowering blood lipids, and improving intestinal function.

According to the statistics on the clinical studies analyzed, pine pollen was used alone (as a monotherapy) or in combination with other interventions (as an adjuvant therapy) for a wide range of diseases (e.g., bedsores, diaper dermatitis, hyperlipidemia, oral mucositis, eczema, hyperplasia of prostate, hypertension, prostatitis, type 2 diabetes mellitus, and radiodermatitis). More than half of clinical studies have reported that pine pollen was used as a topical agent for skin diseases, suggesting that pine pollen may have great potential in the treatment of skin diseases. Among all the included clinical studies on pine pollen, the potential beneficial effects of

pine pollen were demonstrated. For clinical studies that reported adverse events, no events were related to pine pollen.

Pine Bark (Cambium)

The inner bark (cambium) of the loblolly pine tree is edible but not particularly tasty. It can provide nourishment when little else is available. It is high in vitamins A and C.

It should be taken from large pine trees and can be eaten raw but most prefer it cooked in a skillet or over an open flame.

Caution should be taken to limit when collecting the inner bark not to excessively damage the tree.

The inner bark should be taken from a narrow vertical strip limiting the damage to the tree. The whole bark from young pine twigs is also edible.

The cambium should be sliced as thin as possible and cooked until it is brown and crispy all over.

https://www.foragingtexas.com/2006/04/loblolly-pine.html

The inner bark (cambium) can also be ground up into flour and combined with wheat flour to make bread and cookies. Use one part inner bark flour to three parts wheat flour.

Pine Sap/Resin

Pine sap also known as pine resin is the sticky substance produced by pine trees when the tree is injured or damaged especially when it effects the inner bark of the tree.

When pine sap is heated and the vapors are condensed, water and turpentine are the result. The solid residue that is left behind during this distillation process is pine rosin.

Pine sap/resin can be used as an adhesive to glue materials together such as wood, bone, or stone. It can also be used as a sealant to repair leaks in boats or other wooden structures.

It can be applied topically to wounds and skin conditions because of its antiseptic and anti-inflammatory properties.

Pine sap/resin is highly flammable and can be used as a fire starter. It burns very hot and can be used to ignite larger pieces of wood or other tinder.

The strong scent of pine sap/resin can be used as a natural insect repellent applied to surfaces other than the skin. If it is applied to the skin, it is very difficult to remove and may act as an irritant.

Pine Turpentine

Pine turpentine derived from distilling the vapors from heating pine sap has several practical applications. Most people are familiar with its use as a solvent in paints and varnishes. It helps to thin the paint for easier application, and it evaporates quickly, leaving behind a smooth, even finish. It is used to clean brushes and other painting tools.

Pine turpentine is an effective solvent for removing paint, grease and other stubborn stains from surfaces such as wood, metal, and fabrics.

Pine turpentine can be used as an ingredient in adhesives and glues especially those used in woodworking and construction. It helps to dissolve the adhesive components and improve their bonding properties.

Pine turpentine has been used historically for a variety of medicinal purposes. It has been used topically as an antiseptic and counterirritant for treating minor cuts, wounds, and skin conditions. It has also been used to treat poisonous snake bites and insect stings.

When used for snake bites, partially fill a shot glass with pine turpentine and turn it upside down over each of the puncture wounds covering them with liquid turpentine. The pine turpentine will act as a solvent for the venom. As the venom dissolves it will probably change the color of the turpentine.

Pine turpentine should not be taken internally and keep in mind that it is highly flammable.

Pine Rosin

Pine rosin is a solid form of pine resin obtained through the distillation of pine sap. It is commonly used by musicians who play string instruments to increase the friction between a bow and the stings to produce a clearer sound.

Pine rosin is used in sports to increase gripping ability on equipment and surfaces. Rosin is often applied to dance floors to increase the traction for dancers.

Pine rosin is used as a flux in soldering to facilitate the flow of solder and remove oxidation from metal surfaces. It is applied to the joint before soldering to ensure a strong and clean bond.

Pine rosin is used in soap making as a hardening agent and to enhance lather and cleansing properties.

Pine Wood

Pine wood is commonly used in construction for framing, sheathing, and subflooring. It is suitable for use in framing buildings, constructing doors, windows, panels and plywood.

Pine wood is used to make furniture due to its easy workability, and attractive grain patterns.

Pine wood derived from the heartwood of pine trees is known as fatwood because it contains a high concentration of resin, which makes it relatively dense and heavy compared to regular wood.

Fatwood is also known as lighter wood or fat lighter. It is typically found in the inner portions of older pine tree where the resin has accumulated over time. When these trees are harvested or die, the fatwood can be harvested from the stumps, roots, lower limbs, or lower trunk sections. The resin content in fatwood makes it highly flammable, and it ignites easily even when wet, making it an excellent natural fire starter.

Fatwood can be identified by its darker color and smell of turpentine. Fatwood is prized for its usefulness in outdoor activities such as camping, hiking, and survival situations, where starting a fire quickly and reliably especially when everything else is wet, is essential.

In addition to its use as a fire starter, fatwood has been used historically for various other purposes, including as a torch, as a waterproofing agent for boats and tools, and as a medicinal remedy for its antiseptic properties.

Heating the fatwood causes the resin to melt and ooze out of the wood. The resin can then be collected as it drips or flows out.

Resin from fatwood contains compounds that are believed to have antiseptic properties and has been applied topically to wounds or cuts to help prevent infection.

Inhalation of the smoke produced by burning fatwood has been used in traditional medicine to help alleviate symptoms of respiratory ailments such as congestion or coughing. Caution should be observed because the smoke can irritate the respiratory system.

Fatwood resin has also been used topically as a natural pain reliever for minor aches and pains.

Remember fatwood resin is highly flammable and should be used with caution.

Pine Tar

Pine tar is a dark sticky substance derived from the distillation of various parts of a pine tree including the outer bark, inner bark, and wood. The parts are chopped or shredded into smaller pieces to facilitate the distillation process.

The pine material is placed in a closed container which is then heated in the absence of air. As the material heats up, volatile compounds are released and vaporized.

The vapors produced during the distillation process are collected and condensed back into a liquid form. This is typically done by passing the vapors through a cooling system, such as a series of pipes or a condenser, where they condense into a liquid.

The condensed liquid, which contains the pine tar along with other volatile compounds, is collected in a separate container. The pine tar separates from the other components of the vapor and settles at the bottom of the collection vessel.

Pine tar has been used as a wood preservative, sealant, and in medicinal ointments. It also can be found as an ingredient in soaps, shampoos, and skin care products.

Pine Recipes

Pine Needle Tea

Cut a spoonful of pine needles into smaller pieces and place them in the bottom of a cup. Pour boiling water over the needles and steep for about 5 minutes. You can use a tea strainer while pouring the tea into a different cup.

Boiling the pine needles for a few minutes will produce a stronger flavor but it will diminish the vitamin C content.

Pine Cone Jam

Makes 3 one-cup capacity jars (but the recipe doubles successfully)

Your pine cones can range in size from burgundy-tinted pinkie-nail babies, to green, thumb-length teenagers. What matters most is that they are immature and resinous. To make this jam successfully, it is essential that the mixture cools between boiling. It is shelf-stable. If it crystallizes over time, just warm the jar in simmering water.

For pine “honey”, strain the cooking syrup and bottle it (use the leftover cones to flavor vodka or hot tea). For clean-up (of your sticky pan-sides, and fingers) use rubbing alcohol or mineral oil.

- 8 oz (about 2 ¼ cups) baby pine cones
- 4 cups water
- 2 cups sugar

To Blanch: Place the cones in a pot, cover with water and bring to a boil. Cook at a gentle boil for 5 minutes. Turn off the heat. A layer of resin will collect on the surface – carefully scoop it off, and discard. Drain the pine cones.

Make the jam: Add the sugar and 4 cups of water to the pot with the boiled cones. Stir. Bring to a gentle boil and cook for 5 minutes. Turn off the heat and cool *completely*. Bring to a boil again. Boil for 1 minute. Turn off, and cool. Repeat another three times.

Test a cone: If a cone is now chewable and pleasantly sweet and the liquid dark and syrupy, they are done. If not (it depends on their size), repeat the boil-cool steps. If you are running out of liquid, add some more water to the pot.

Bottle the jam in sterile jars.

Pine pollen is a nutrient-rich substance harvested from the male cones of pine trees. It has gained popularity as a superfood due to its high levels of vitamins, minerals, amino acids, and antioxidants. Here are some recipes that incorporate pine pollen as an ingredient:

Pine Pollen Smoothie

- Ingredients:
  - 1 ripe banana
  - 1 cup of fresh spinach
  - 1 tablespoon of pine pollen
  - 1/2 cup of Greek yogurt or almond milk
  - 1/2 cup of frozen berries (such as strawberries, blueberries, or raspberries)
  - 1 tablespoon of honey or maple syrup (optional, for sweetness)
- Instructions:
  1. Combine all ingredients in a blender.
  2. Blend until smooth and creamy.
  3. Pour into glasses and enjoy immediately.

Pine Pollen Energy Balls

- Ingredients:
  - 1 cup of rolled oats
  - 1/2 cup of almond butter or peanut butter
  - 1/4 cup of honey or maple syrup
  - 2 tablespoons of pine pollen
  - 1/4 cup of chopped nuts (such as almonds, walnuts, or pecans)
  - 1/4 cup of dried fruit (such as raisins, chopped dates, or cranberries)
  - 1/4 cup of shredded coconut (optional)
- Instructions:
  1. In a large bowl, combine rolled oats, almond butter, honey or maple syrup, and pine pollen. Mix well.

2. Add chopped nuts, dried fruit, and shredded coconut (if using) to the mixture and stir until evenly distributed.
3. Roll the mixture into small balls, about 1 inch in diameter.
4. Place the energy balls on a baking sheet lined with parchment paper and refrigerate for at least 30 minutes to firm up.
5. Once firm, store the energy balls in an airtight container in the refrigerator for up to one week.

Pine Pollen Salad Dressing

- Ingredients:
  - 1/4 cup of extra virgin olive oil
  - 2 tablespoons of apple cider vinegar or lemon juice
  - 1 tablespoon of honey or maple syrup
  - 1 teaspoon of Dijon mustard
  - 1 teaspoon of pine pollen
  - Salt and pepper to taste
- Instructions:
  1. In a small bowl, whisk together olive oil, apple cider vinegar or lemon juice, honey or maple syrup, and Dijon mustard until well combined.
  2. Add pine pollen to the dressing and whisk until evenly distributed.
  3. Season with salt and pepper to taste.
  4. Drizzle the dressing over your favorite salad and toss to coat evenly before serving.

These recipes offer a delicious way to incorporate pine pollen into your diet and enjoy its nutritional benefits. Feel free to adjust the ingredients and quantities according to your taste preferences.

Pine cambium, the thin layer of tissue found beneath the bark of pine trees, is edible and has been historically consumed by various indigenous peoples for its nutritional value. Here are some recipes that incorporate pine cambium as an ingredient:

Pine Cambium Tea

- Ingredients:
  - Fresh pine cambium strips (harvested from a healthy pine tree)
  - Water
  - Optional: Honey or sweetener of choice
- Instructions:
  1. Rinse the fresh pine cambium strips under cold water to remove any debris.
  2. Place the pine cambium strips in a saucepan and cover with water.
  3. Bring the water to a gentle simmer over low heat and let it simmer for about 15-20 minutes.
  4. Remove the saucepan from the heat and strain the tea to remove the pine cambium strips.
  5. Sweeten the tea with honey or your preferred sweetener, if desired.
  6. Pour the tea into cups and enjoy hot.

Pine Cambium Salad

- Ingredients:
  - Fresh pine cambium strips
  - Mixed salad greens (such as spinach, arugula, or lettuce)
  - Sliced vegetables (such as cucumber, cherry tomatoes, and bell peppers)
  - Salad dressing of your choice
  - Optional toppings: nuts, seeds, cheese
- Instructions:
  1. Rinse the fresh pine cambium strips under cold water and pat them dry with a paper towel.
  2. Tear or chop the pine cambium strips into bite-sized pieces.
  3. In a large bowl, combine the mixed salad greens, sliced vegetables, and pine cambium pieces.
  4. Drizzle the salad dressing over the salad and toss gently to coat evenly.
  5. Sprinkle with optional toppings, if desired.
  6. Serve immediately as a refreshing and nutritious salad.

Pine Cambium Stir-Fry

- Ingredients:
  - Fresh pine cambium strips
  - Sliced vegetables (such as bell peppers, onions, carrots, and broccoli)
  - Protein of your choice (such as tofu, chicken, or shrimp)
  - Soy sauce or stir-fry sauce
  - Cooking oil
  - Optional seasonings: garlic, ginger, chili flakes
- Instructions:
  1. Heat a small amount of cooking oil in a large skillet or wok over medium-high heat.
  2. Add the sliced vegetables and protein to the skillet and stir-fry until they start to soften.
  3. Add the fresh pine cambium strips to the skillet and continue to stir-fry for a few more minutes until everything is cooked through.
  4. Season the stir-fry with soy sauce or stir-fry sauce, and add optional seasonings according to your taste preferences.
  5. Continue to cook for another minute or two, stirring constantly.
  6. Remove the skillet from the heat and serve the pine cambium stir-fry hot with rice or noodles.

These recipes offer creative ways to incorporate pine cambium into your meals, providing a unique flavor and nutritional boost.