

## Edible Pine Bark

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### Eastern White Pine Logs

Freshly cut logs oozing pitch. This tree was over 3-feet thick at the base and eighty feet high.

Ever eat a tree? Survival Topics will show you how.

Where others starve, expert survivors find food; often in plentiful supply from sources few people know about. To survive where others fail you need the drive to observe and learn, the willingness to try new things, and the ability to drop all preconceived food prejudices.

In the Survival Topic [Survival Foraging on the Move](#) I showed you how easy it can be to draw from nature's food supply through knowledge of local flora and fauna and careful observation. Simply by keeping yourself open to anything edible that comes your way, you can obtain more food than you can possibly eat.

One of the foods I introduced in that article are needles from the Eastern White Pine tree (*Pinus Strobus*), which are high in the vitamin C you need for optimum health in the wilderness. Consuming pine needles or brewing [pine needle tea](#) is a great preventative and cure for scurvy caused by lack of vitamin C in the diet. Yet thousands of people have died of scurvy while literally surrounded by whole forests of

pine trees! This illustrates the fact that knowledge and the ability to apply it is an important key to survival.

In this Survival Topic I will introduce to you another part of the Eastern White Pine that is nutritious and easy to harvest in amounts large enough to be a very significant source of food for you and your companions during an extended survival emergency: its inner bark.

You will likely find the inner bark of pine trees to be good to eat at any time, whether or not you are in a food emergency. However the damaging of these fine trees is not advised unless you are in real survival situation or obtain pines that are being cut anyway during logging or thinning operations.

## Identifying the Eastern White Pine

The Eastern White Pine is the tallest tree in Eastern North America, growing up to 230 feet high and measuring 8 feet thick at the base. These huge old trees can live as long as 500 years, though most of the giants have been cut for lumber in years past. Trees several feet thick and one hundred feet tall are now quite common in some areas.

If you take a look at the accompanying map you can see that the Eastern White Pine lives in areas that many Survival Topics readers frequent, from south eastern Canada down through Pennsylvania and south along the Appalachian Mountains. If you do not live in Eastern White Pine country do not despair; many other species of tree bark are edible and the basic principles of harvest and preparation remain the same.

The Eastern White Pine has evergreen needles in bundles of 5 that are about 3 to 5 inches long. The bark and cones are very resinous, and this sticky substance can be utilized in a number of ways including the making of glue.

The bark of young trees is a gray greenish color and is thin and easily broken. As the tree grows larger the outer bark becomes reddish brown, thick, scaly and with deep furrows.

## Finding Trees to Eat

I never injure any living thing I do not have to. This philosophy bodes well with real outdoorsmen who understand the importance of treading carefully in the world we live. Stripping bark from a live tree will kill it – the wise take only what they need and leave the rest; in non-emergency situations there is no need to destroy a tree for a meal of bark. For this reason until now I have put off showing you this excellent survival food resource.



### Peeling Bark

The bark on freshly cut trees is easy to peel off.

Simply cut a line through all bark layers down to the wood of the tree. Then using the edge of a tool separate the bark from the rest of the tree.

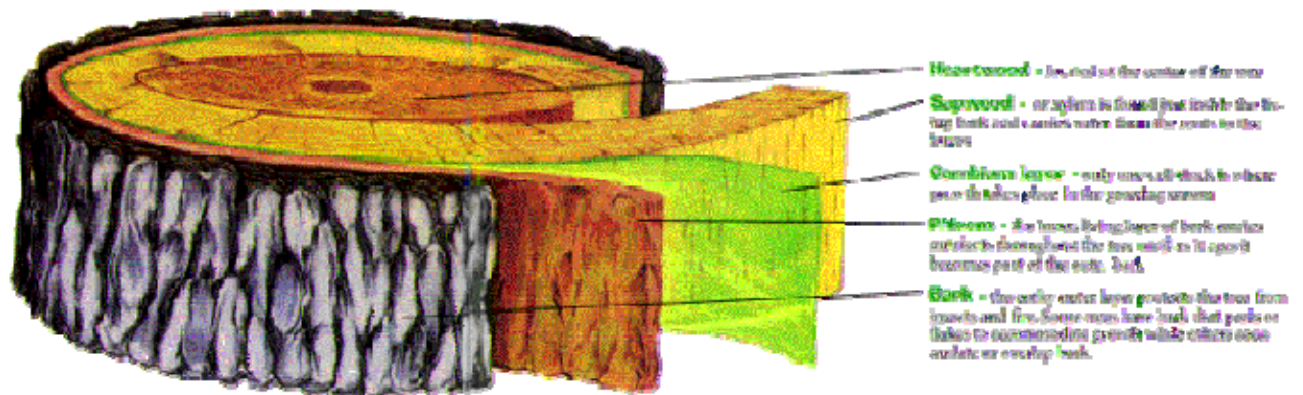
Now you have a slab containing both the outer bark of the tree and the white inner bark.

This is a slippery and sticky process, so be careful and have fun!

Recently a large eastern white pine tree on a property abutting the Survival Topics compound was deemed a dangerous liability. This huge tree had grown to a height of eighty five feet and some three feet thick at the base. Because a nearby home was endangered should the tree topple over during a storm, the pine was cut and removed by a tree service. When the neighbor asked if I would like the wood for use as kindling in the woodstove I accepted her kind offer.

Little did she know I planned to eat it!

The pine logs were trucked to a corner of the compound. In the picture you can see me investigating several of the freshly cut logs still oozing with sticky sap and smelling of turpentine. By counting its annual growth rings the tree appears to be some sixty years old. In the far background of the picture you can see the tops several living white pine trees in the Survival Topics forest jutting up toward the clouds.



## Anatomy of a Log

# Native Americans Ate Bark

Native Americans included the inner bark of pines and other trees as an important part of their diet. Early foreign explorers of North America recorded finding acres of trees stripped of bark for food by the local inhabitants.

Easily obtainable in large quantities all year round, storable, and very nutritious, at least one famous tribe is well documented as making bark an important part of their diet. Their very name "Adirondack", a tribe in the mountains of upstate New York, means "bark eaters" in the Iroquois language.

The Iroquois were a confederacy of Native Americans frequently at war with the Adirondacks. Calling the Adirondacks "Bark Eaters" was meant as derogatory name calling, much as you might call a mechanic, no matter how skilled he may really be, a "grease monkey".



### Slicing Bark

On this tree the inner bark is a full quarter inch thick.

The inner bark closest to the outer bark is tough and tastes resinous. Here I am using a sharp knife to peel the inner bark roughly in half, keeping the part that grew closest to the woody part of the trunk.

## More Survival Myths

Most writers maintain that the Adirondacks ate bark out of dire necessity, only because they were often starving during long cold winters when game was scarce and little in the way of other food could be found. But having experience in harvesting and eating the inner bark of pine trees myself, which I am sure few other writers have ever done, I maintain it is more likely the Native Americans relished the taste and nutritional value of inner bark and considered it a welcome part of their diet whether or not other foods were available.

That the Adirondacks ate a large amount of bark during the winter is likely due to its easy storability more than anything else. The misreading of the habits of cultures

foreign to ones own is very common. If eating bark is a strange concept to you and you observe another culture doing so you may very well conclude they are eating bark because they are starving and have nothing else to eat.

It has been my frequent observation that many writers merely regurgitate what they have read elsewhere, rehashing over and over the same errors so much so that eventually the error becomes embedded in nearly all literature on the subject and is thought of as the gospel truth even by those considered an authority on the subject.

An example of this is shown in the Survival Topic on [How Long do You Need to Boil Water?](#) Where I show that most commonly accepted literature on boiling water to make it safe to drink is in error. When it comes to survival there are many other misnomers, myths, and misinformation being spread by those who have never tested the information they expose; a very dangerous practice indeed when it comes to those who rely upon it for survival.

When members of the Adirondack tribe came upon a large wind thrown Eastern White Pine I suspect they did what any hunter gatherers who knew the food value of its inner bark would do; they gladly harvested it.

So on to our own harvesting and preparation of edible pine bark!

## How to Harvest Edible Pine Bark

When harvesting pine bark expect to get very sticky, covered with pitch from head to toe; it's all part of the fun.

I very much enjoy the smell of pine pitch. It brings me back to my younger days of axe work on survey lines and timber stand improvements in the Great North Woods of northern Maine and New Hampshire. Hard work in the outdoors is the elixir of life and the key to good health, as you must know if you live the life of an outdoorsman.

In the diagram you can see that a pine log is actually made up of a number of layers. Both the rough outer bark layer and the main woody part of the tree commonly used as lumber is non-living material. The edible part of bark is the "inner bark" or "phloem"; the actual living part of the tree. This inner bark carries nutrients from the needles and roots throughout the tree.

To harvest the living bark for food you will need a fresh tree. As soon as the tree falls or is cut down the clock is ticking; wait too many days and the bark will become very difficult to remove from the rest of the tree. However on a fresh live tree the bark is easily removed in large slippery sheets.

The first step is to remove a slab consisting of both the rough outer bark and the living inner bark from the woody trunk of the tree. Simply use a chopping tool to cut a straight line completely through all the layers of bark right down to the hard wood. Then slide the edge of a tool into the cut you made so that it is forced between the bark and wood. Work the edged tool back and forth as you pull the loosened bark with your other hand. The bark is easily removed from the wood since the space between is exceedingly slippery.

As you can see in the pictures, I am using a tomahawk for this process but any tough narrow object such as a small crowbar or a strong stick can be used as a bark removing tool.

The larger the tree the thicker the inner and outer bark layers tend to be. At the base of this large tree the inner bark is a full quarter inch thick in places. If I were to harvest all the inner bark on the tree I would likely have well over one hundred pounds!



### Frying Bark

Frying slabs of pine bark on a cast iron pan over the Dakota Fire Hole.

Grease the pan well and fry to a crisp golden brown.



### **Crispy Bark Chips**

Fry the bark slabs to a crispy golden brown

The most edible and tasty part of the inner bark is that which is closest to the hard woody part of the tree (or furthest away from the outer bark if you prefer to look at it that way). The portion of the inner bark closest to the wood of the tree has an almost sweet taste. The closer the inner bark is to the outer bark of the tree the stringier and resinous it becomes.

For this reason I like to slice the slab of inner bark in half and discard the less desirable piece. You may have to experiment some in order to find the thickness of inner bark that you need to remove. This varies from tree to tree and limb to limb depending upon the characteristics of each individual tree, its size, and your particular tastes.

If a tree is under a foot in diameter, more or less, there may be little inner bark that is not resinous. This comes from my particular experience; in your neck of the woods the local pines may differ due to local conditions or genetics. Just as apples from different trees can vary in taste, so too will foods from other sources.

In the picture I am using a sharp survival knife for separating the tasty portion of the inner bark from the more resinous part which is left connected to the rough outer bark.

## **Cooking the Bark**

Raw white pine bark is too fibrous to eat very much of. You can chew it until your jaw hurts and it remains balled up in one large mass. However heat the bark to crispness, something like a potato chip you purchase as a snack from the grocery store, and the bark becomes a tasty treat.

Some writers claim you can slice the pine bark into strips and boil it like spaghetti until tender and soft. I haven't been successful at this, having boiled the strips for several hours with no good result. Once again, I suspect this method may be espoused by armchair survivalists who rarely actually do what they write about but merely plagiarize from one another ad infinitum. Since fresh inner pine bark has something of the characteristics of wet pasta, being limp, light colored and slippery, it could be someone made the connection and other writers are simply copying the idea into their own texts.

If you have managed to make edible spaghetti out of the inner bark of Eastern White Pines, please contact me as I would very much like to know how you did it.

In the pictures you can see me cooking the harvest of inner bark over a [Dakota Fire Hole](#) using a couple of methods. The first, perhaps my favorite, is frying the bark in olive oil to a golden brown on a cast iron frying pan. This is done much as you would fry slabs of bacon. Of course you can use any edible oil depending upon your tastes or what you have available.

In my fingers is a fried and ready to eat bark chip. It is a little dark in color as it is slightly overcooked; cooking and taking pictures at the same time is not conducive to gourmet results!

I can easily eat a bag full of these crunchy bark chips as a snack, and certainly they would be a welcome addition to any wilderness survival meal. I can taste sugar and starches in this food and there are likely to be a host of valuable nutrients since it is the living part of the tree. A mess of fried trout, some dandelion greens, and a handful of pine bark chips – a meal fit for a king!

Another good method, especially for preparing white pine bark for long term storage, is dry roasting. Here you can see I have positioned a flat stone over the Dakota Fire Hole on which the slabs of inner bark are being roasted. Once dry to a golden brown the bark can be pounded into flour that can be used as an extender for other flours, as a soup thickener etc.

The most delicious way I have found to prepare the inner bark for eating is to shred it as finely as possible before roasting or frying. This makes the bark especially crunchy and fine tasting but of course takes more effort in preparation.



### Roasting Bark

For long term storage you can roast the bark until completely dry and crispy.

Dried bark can be used as a flour substitute or stew thickener.

## Try Eating A Tree

The Adirondack's knew what they were doing when they harvested the inner bark of Eastern White Pines as a valuable food resource. Easily procured in great quantities, tasty and nutritious, knowing how to eat the bark of a pine tree could very well save your life.

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## Did You Ever Eat a Pine Tree?

by Euell Gibbons



In the trunk of a large tree the only living part is some layers of live cells outside the wood proper and inside the bark-called the sapwood, the cambium, and the inner bark. All these layers put together may be only a fraction of an inch thick.

The living layers of cambium and inner bark on many kinds of trees have often been used in medicine, in home remedies, and even as a source of food. In 1732, when Linnaeus, the father of modern botany, was tramping through the Lapland, he reported that the Lapps were largely subsisting on "fir bark." This was from the tree known to us as Scotch pine.

The Lapps removed the brown outer layer and hung the strips of white inner bark under the eaves of their barns to dry. If food was plentiful the next winter, this bark was fed to their dogs and cattle, and was reported to be very fattening, but if other foods were scarce, the Lapps would grind this dried bark and make a famine bread of it, which was very nutritious, but, to Linnaeus's taste, not very palatable.

It is not usually realized how much the American Indians formerly depended on tree barks for food. The eastern Indians favored the barks from the pine family, especially that from the white pine, although the inner barks of other trees, such as black birch and slippery elm, were relished.

The eastern white pine is one of the largest forest trees found from Canada south to



Georgia and west to Iowa. The bark is greenish and smooth on young trees, becoming brown and furrowed on large, old ones. The needles are a grayish blue-green in color, soft and flexible with no prickles or points, three to five inches long, growing five in a cluster Ü a valuable recognition feature.

### **Fresh From Your Local Sawmill**

I had no trouble finding white pine bark with which to experiment. I simply inquired at a country sawmill where white pine had been recently cut, drove where they directed me, and peeled the bark from the stumps. The inner bark must be separated from the dry, outer bark. I tried boiling this fresh inner bark as the Indians did, and it reduced to a glutinous mass from which the more bothersome wood fibers were easily removed. I'm sure it was wholesome and nutritious, but in the area of palatability it left much to be desired. It is said that the Indians cooked this bark with meat so I tried boiling some with beef, but when I tasted it I felt that instead of making the bark edible I had merely ruined a good piece of beef.

I imagine that one who grew up eating this food, as the Indian children did, would find it good.

I wanted some dried bark for herbal remedies and further food experiments, so I hung some of my strips of white pine bark in a warm attic room until it was thoroughly dry. It still wouldn't grind very well, so I gave it an additional drying in an oven with the door propped slightly open so moisture could escape. The heat caused the bark to swell slightly, and it became a great deal more friable and grindable. The redried bark was cut into small pieces with a hatchet, and ground, about a cupful at a time, in the electric blender. Most recipes for home remedies made of this inner bark call for coarsely ground bark, so I put the pulverized bark through a flour sifter, using the fine part that passed through the sieve for food experiments and the coarser stuff for cough syrup.

The fine powder was a weak yellowish-orange color with a slight odor of turpentine and a taste that was at first very sweet and mucilaginous, but was quickly followed by a disagreeable bitterness and astringency. There is no doubt about this material's being nutritious. It contains sugar and starch, and, according to two U.S. Government sources, it is rich in vitamin C.

I hoped the bitterness and astringency would disappear on cooking but, alas, these tastes are very persistent, and I can't say that the bread I made with it was an unqualified success. I mixed the fine powder half-and-half with wheat flour and followed a recipe for yeast-raised rolls. They were of good texture and perfectly edible, but they also had a disagreeable bitter taste and more than a hint of turpentine flavor about them, and I felt the rolls would have been better without the white pine flour.

Dried white pine bark is still a valuable ingredient in cough remedies. Its medicinal properties are expectorant and diuretic. It is most often prescribed in the title role of Compound White Pine Syrup. This is a real herbal mixture and a good illustration of the fact that modern medicine does not disdain herbal remedies if they are effective.

## Candied White Pine

New Englanders formerly candied the peeled new shoots of white pine, gathered before they became woody. I tried some of these peeled tender shoots, boiling them until tender, draining off that cooking water and then boiling them for 20 minutes in a syrup made of equal parts of sugar and water. The syrup was then drained off, and the candied shoots were partly dried, then rolled in granulated sugar.

This tasted a little more civilized than the foods I had been trying, but even this candy was nothing about which I could get very excited. I would have considered it a pretty good tasting cough medicine, and it would probably help control a cough, but I'm sure I have eaten much better confections.

White pine needles have been tested for nutritional benefits, and they have good yields of vitamin A and about 5 times as much vitamin C as found in lemons. Had those old-timers who used to suffer from scurvy every winter when fresh vegetables were unavailable used an infusion of white pine needles instead of tea or coffee, they would never have been touched by scurvy.

## Pine Needle Tea

Pine Needle Tea, made by pouring 1 pint of boiling water over 1 ounce of fresh white pine needles chopped fine, is about the most palatable pine product I have tasted. With a squeeze of lemon and a little sugar it is almost enjoyable, and it gives a great feeling of virtue to know that as you drink it you are fortifying your body with two essential vitamins in which most modern diets are deficient.

I have high respect for the medicinal and nutritional properties of white pine products, but you must have gathered by now that I care very little for their taste. Nevertheless, the economic hazards of writing for a living being what they are, I intend to bear in mind that these lordly trees can furnish substantial and nutritious, if somewhat ill-tasting, food in times of need, but the emergency will have to be pretty dire before I consume any large quantity of it. My current taste in food-gathering poses no threat of extinction to the white pine.

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Note: The information in this article is intended for entertainment purposes only. Consult your personal doctor or herbalist before consuming any of the preparations mentioned in this article.

Excerpted from *Stalking the Healthful Herbs* by Euell Gibbons, with permission of the publisher.

<http://www.ruralvermont.com/vermontweathervane/issues/winter/97012/eatpine.shtml>

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**Title:** Bark-peeling, food stress and tree spirits - the use of pine inner bark for food in Scandinavia and North America

**Author:** Ostlund, Lars; Ahlberg, Lisa; Zackrisson, Olle; Bergman, Ingela; Arno, Steve

**Date:** 2009

**Source:** Journal of Ethnobiology. 29(1): 94-112.

**Description:** The Sami people of northern Scandinavia and many indigenous peoples of North America have used pine (*Pinus* spp.) inner bark for food, medicine and other purposes. This study compares bark-peeling and subsequent uses of pine inner bark in Scandinavia and western North America, focusing on traditional practices. Pine inner bark contains substances - mainly carbohydrates, dietary fiber, vitamin C, and minerals - that were important complements to the protein-rich food of the indigenous peoples living in northern regions of both continents. The climate in these regions was (and is) sharply seasonal, and the stored carbohydrates in pine inner bark were particularly important during late winter. On both continents, a strip of live cambium was commonly left to show respect to the tree and the tree spirits and to ensure the tree's survival. The uses of pine inner bark and associated traditions have long time depths, and trees with old, or even ancient, bark-peeling scars are still common in old-growth pine forests on both continents. We conclude that forests with such trees should be regarded as relicts of traditional landscapes and protected for their cultural historical value.

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It really is quite simple: Strip the needles off a few small branches (preferably taken from a larger, fallen branch) give them a rinse under cold water and pack a jam jar or kilner jar with all the needles.

Bring some cider vinegar or white wine vinegar to the boil, add 2-3 tablespoons of soft brown sugar and stir until dissolved. Remove from the heat, allow the vinegar to cool slightly and pour over the pine needles. Easy. You may have to wait for 6-8 weeks to try it out, I tried red wine vinegar too for a bit of variety, I had a sniff this morning and both already have a slight yuletide aroma to them. Should sit nicely on the shelf with my tarragon infused vinegar I made a couple of months ago- its incredible with carrot shavings...

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You can make tea from the White Pine!

This is a simple herbal recipe from the 19th century that is said to remedy many common illnesses. The needles of the white pine are very high in Vitamin C (more than 6 lemons!) and also contain [Vitamin A](#).

Difficulty: Easy

Instructions

**Things You'll Need:**

- 1/2 cup fresh green white pine needles, finely chopped
- 1.5 pints water
- small pot for boiling
- honey or some other sweetener (optional)

1. Step 1



Select your pine needles by picking the newest green ones from the tree. These would be the ones nearest the end of each branch, and slightly lighter green than the rest of the needles.

2. Step 2

Finely chop them until you have about 1/2 cup.


3. Step 3

Add your needles to the boiling water and simmer for about 20 minutes, or until the volume of water has reduced by about 1/3.

#### 4. Step 4

Allow it to steep for anywhere from 20 minutes to overnight, depending on how strong you like your tea. The result will be a reddish colored tea with a mild [taste](#). Store in the refrigerator.

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Pine Needle Tea	Lead	[-]
 <p>Posts: 858 (11/11/09 15:06:50)</p> <p><a href="#">Reply</a> <a href="#">Quote</a> More</p> <p><a href="#">My Recent Posts</a></p>	<p><b>TAGS</b> : None</p> <p>I'd heard about infusing pine needles to make tea a long time ago, and only recently tried it after a little research. Apparently any needled evergreen species will do, and each, reportedly, (I've only tried one so far) has a distinctive taste. The only poisonous evergreen is supposedly the yew. Even hemlock is ok; I learned that the hemlock evergreen is not what they used to kill Socrates, but rather a deciduous plant by the same name.</p> <p>Anyway, I picked a handful of white pine needles and brought them to a boil in about 4 cups of water, then let them simmer about 15 min, and strained the liquid into my cup. The taste is what you might expect, fresh and piney, with a buttery background. I understand there's lots of vitamin A and C in this, as well as antioxidants. I added a tiny bit of butter to the infusion (Tibetans often use butter and salt in their tea, which I've tried and occasionally get a taste for.) and that brought out the natural buttery background. Overall, I'm amazed more people don't do this, as white pines are fairly ubiquitous, and the result is quite good. The only caveat is that the resin from the pine does seem to leave a "rough" coating on the throat, which the butter mitigates, if you add it (like 1/4 tsp. to a 12 oz. mug).</p> <p>I'm wondering about further uses of this, like as a basis for syrup, or even a white sauce...</p>	

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## Ingredients

### Pine Needle Bubbles:

- 500 ml simple syrup
- ½ cup Douglas Fir needles
- 1 tablespoon versawhip
- ¼ tablespoon Xanthan gum
- ¼ cup granulated sugar

### Daiquiri:

- 2 ounces herbaceous white rum such as Brugel White Label Rum
  - ¾ ounce freshly squeezed lime juice
  - ¾ ounce simple syrup
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## Preparation

### Pine Needle Bubbles:

Bring simple syrup and Douglas Fir needles to light simmer. Remove from heat, transfer to blender or food processor, and puree. Strain through fine-mesh chinois (strainer).

In small bowl, combine versawhip, xantham gum, and granulated sugar. Add to pine needle-simple syrup mixture and whisk to dissolve. Use low-powered emulsifier such as an immersion blender or whisk to whip mixture into bubbles.

### Daiquiri:

In cocktail shaker combine rum, lime juice, and simple syrup. Add ice and shake vigorously 20 times. Slowly strain into martini glass then top with teaspoon of pine bubbles and serve.

Read More <http://www.epicurious.com/recipes/member/views/PINE-NEEDLE-DAIQUIRI-50056115#ixzz0h9KQHiOU>