Lyis: Tibicos (Water Kefir)

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September 4, 2023

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2 Introduction

Tibicos or water kefir is traditional fermented drink made using a symbiotic culture of bacteria and yeasts (SCOBY) that form the tibi grains, and a source of sugar and nutrients. While each tibicos culture is unique, the one produced by Lyis has been adapted to grow with reverse osmosis water, cane sugar and molasses, and receive regular blessings in accordance with the findings of Masaru Emoto.

3 Uses

Tibicos can be used as a probiotic beverage, for bokashi composting and as probiotic for improving the smell of items of clothing that are frequently damp from prespiration such as shoes, hats and headbands.

4 Preparation

For optimal success it is important to use high quality container, utensils and ingredients.

4.1 Container

The container is best to be made of glass, such as a 500ml wide mouth mason jar. Can use a piece of unbleached cotton or cheese cloth with the jar lid ring for the aerobic stage of fermentation. And you can get a plastic mason jar lid to seal it for either anaerobic fermentation, or if you wish to rest the culture.

4.2 Water

Then add unchlorinated water, unfluoridated water, such as reverse osmosis, distilled, or mineral water. Chlorine, flouride and other such substances often found in tap water are poisonous to bacterial cultures.

Also avoid using metal utensils when handling kefir culture or mixing the water since the acidic culture will leech the minerals from it, and may lead to metal toxicity that interferes with growth and health benefits.

Can use an undersink reverse osmosis system for best results. Or can buy bottled distilled or spring water as an alternative.

4.3 Food

The kefir culture needs to eat in order to grow. There are various substrates they can grow on, such as fruit juices and fruit solids, however the tibicos produced by Lyis is adapted to grow on

organic cane sugar and organic molasses. A little calcium carbonate from crushed eggshells as buffer can also help.

Each feeding the water is changed takes about two tablespoons of cane sugar and roughly a teaspoon of molasses for 500ml of water.

4.4 Straining/Pouring/Decanting

You can use cheese cloth such as made from unbleached cotton if you wish to strain the grains, do not strain through metal.

Otherwise you can simply decant the liquid and stop pouring when it gets down to the grains. Decanting is also useful for getting rid of an acetic SCOBY which may form at the top that could interfere with the culture. While some grains may get into where you are pouring they are safe to ingest.

Also by using the decanting method you are maintaing some of the acidity and free floating bacteria that is in the culture, which may make it easier to maintain, and easier for the kefir grains to move the PH to the levels they prefer.

5 Fermentation

Fermentation is a key process in the production of tibicos (water kefir), transforming a simple mixture of sugar and water into a probiotic-rich beverage. The fermentation process involves two main stages: primary fermentation and secondary fermentation.

5.1 Primary Fermentation:

During the primary fermentation, the tibicos grains are added to a mixture of sugar and water, initiating the fermentation process. The grains consist of a symbiotic culture of bacteria and yeasts (SCOBY), which interact to convert the sugars into beneficial compounds. Here's an overview of the primary fermentation:

Creating the Fermentation Base: Dissolve a combination of sugar and molasses in water to approximate the flavor profile of brown sugar. Brown sugar is known to yield excellent results in tibicos fermentation due to its nutrient content and flavor complexity. The recommended ratio is typically 1/4 cup of sugar and 1 teaspoon of molasses per quart (liter) of water, and 1/8 teaspoon calcium carbonate powder (such as from crushed eggshells) but you can adjust the proportions based on personal taste preferences.

Adding Tibicos Grains: Once the sugar and molasses mixture has cooled to room temperature, add the tibicos grains to the solution. The grains will begin to consume the sugars and produce beneficial compounds such as lactic acid, acetic acid, and carbon dioxide. This fermentation process typically takes 24 to 48 hours.

Fermentation Conditions: Maintain the fermentation vessel at a temperature range of 20–30°C (70–85°F) to create an optimal environment for the tibicos grains to thrive. Ensure that the container is covered with a breathable cloth or a loose-fitting lid to allow gas exchange while preventing contaminants from entering.

Fermentation Time: The duration of the primary fermentation can vary depending on several factors, including ambient temperature and desired flavor profile. Taste the tibicos periodically during the fermentation process to determine the desired level of sweetness and tanginess. Once the desired taste is achieved, proceed to the secondary fermentation. Remember that fermentation will continue if left unattended for an extended period, potentially resulting in a more acidic and less sweet beverage.

5.2 Secondary Fermentation

The secondary fermentation, also known as bottle conditioning, is an optional step that enhances the flavor complexity and carbonation of the tibicos beverage. Here's how to proceed with the secondary fermentation:

Straining the Tibicos Grains: Carefully strain the fermented liquid to separate the tibicos grains from the beverage. This step ensures that the grains are not present in the secondary fermentation process.

Flavoring (Optional): If desired, you can add additional flavorings to the strained liquid to create unique taste variations. Consider incorporating fruit juices, extracts, herbs, spices, or pieces of fresh fruit. These ingredients can infuse their flavors during the secondary fermentation.

Bottling: Transfer the strained liquid into airtight bottles suitable for fermentation. Choose bottles designed to withstand pressure buildup, such as swing-top glass bottles or plastic bottles specifically made for carbonated beverages. Leave some headspace in each bottle to allow for carbonation.

Carbonation and Flavor Development: Seal the bottles tightly and place them in a room temperature location away from direct sunlight. This is where the secondary fermentation occurs. The remaining sugars in the liquid will be consumed by the residual yeast, generating carbon dioxide gas and resulting in natural carbonation. The duration of the secondary fermentation can range from 24 hours to several days, depending on factors such as ambient temperature and desired carbonation level.

Refrigeration and Consumption: Once the desired level of carbonation is achieved, transfer the bottles to the refrigerator to halt further fermentation and carbonation. Chilling the tibicos will help preserve the flavors and maintain the desired level of carbonation. It is recommended to consume the tibicos within a few weeks to enjoy its optimal taste and quality.

By combining sugar and molasses, approximating the flavor profile of brown sugar, you can create a rich and nuanced tibicos beverage during the primary fermentation. The secondary fermentation, with optional flavor additions, further enhances the taste and texture, resulting in a delightful and refreshing probiotic drink.

Experiment with different ratios of sugar, molasses, and flavors to find the combination that suits your taste preferences. Enjoy the process of fermentation and the unique flavors that can be created with tibicos, a wonderful probiotic beverage that supports gut health and offers a myriad of potential health benefits.

6 Probiotic beverage

Tibicos, also known as water kefir, is a fermented beverage that offers several potential health benefits due to its probiotic nature. Probiotics are live microorganisms that, when consumed in adequate amounts, confer health benefits on the host. Tibicos contains a symbiotic culture of bacteria and yeasts that contribute to its probiotic properties.

Gastrointestinal Health: Tibicos is believed to support gastrointestinal health by promoting a healthy balance of gut bacteria. The beneficial bacteria present in Tibicos can help improve digestion and nutrient absorption, reduce bloating and gas, alleviate constipation or diarrhea, and support overall gut health.

Immune System Support: The gastrointestinal tract plays a crucial role in immune function. A significant portion of the body's immune cells are located in the gut, and the gut microbiota interacts with the immune system. By maintaining a healthy balance of gut bacteria, Tibicos may help support immune function and contribute to a stronger immune response.

Digestive Disorders: Tibicos has been reported to be beneficial for individuals with various digestive disorders, including irritable bowel syndrome (IBS), leaky gut syndrome, and inflammatory bowel disease (IBD). The probiotic properties of Tibicos may help alleviate symptoms such as abdominal pain, bloating, and irregular bowel movements in some individuals.

Nutrient Absorption: The presence of beneficial bacteria in Tibicos can enhance the breakdown and absorption of nutrients from the foods we consume. This can be especially beneficial for individuals with nutrient deficiencies or compromised gut health, as it aids in maximizing the utilization of essential vitamins and minerals.

Overall Well-being: Consuming Tibicos as part of a balanced diet and healthy lifestyle may contribute to improved overall well-being. It can help support energy levels, enhance mood, and promote a sense of vitality.

It's important to note that individual responses to Tibicos may vary, and its effects on specific health conditions may require further scientific research. As with any dietary change or supplement, it's recommended to consult with a healthcare professional before incorporating Tibicos into your routine, especially if you have underlying health concerns or are taking medications.

Remember, Tibicos is not intended to replace medical treatment or serve as a cure for any specific condition. It can be a valuable addition to a healthy diet and lifestyle, providing potential benefits for gastrointestinal health and overall well-being.

7 Bokashi Composting

Tibicos, also known as water kefir, can be utilized effectively in anaerobic bokashi composting, providing a beneficial fermentation process for organic waste. Anaerobic composting is a method that preserves more of the organic matter during decomposition, as less is converted into carbon dioxide compared to aerobic hot composting methods.

To begin anaerobic bokashi composting with Tibicos, you will need 25-liter buckets with airtight lids. Start by adding a layer of starter kefir beverage, which contains the beneficial microorganisms necessary for the fermentation process, to the bottom of the bucket. This helps initiate the breakdown of organic waste.

As you add organic waste to the bucket, such as kitchen scraps or plant trimmings, ensure they are cut into smaller pieces to facilitate faster decomposition. Sprinkle additional Tibicos or kefir beverage on top of each layer of waste added to enhance the fermentation process. This step helps to control odors and supports the growth of beneficial microorganisms.

Throughout the composting process, it's important to press down the waste in the bucket to eliminate air pockets, which can lead to the growth of undesirable microorganisms. The waste should remain moist but not waterlogged. If any off odors develop during the process, adding extra kefir can help maintain a healthy fermentation environment.

Once the bucket is full, it is recommended to set it aside for about a month to allow the fermentation process to complete. During this time, the beneficial microorganisms in the Tibicos or kefir work to break down the organic matter and ferment it into a nutrient-rich compost.

After the fermentation period, the bokashi compost can be buried in a hole that is at least 30 cm (12 inches) deep. It is beneficial to mix the compost with some living soil to introduce beneficial microbes and enhance its nutrient content. When placing the compost in the hole, gently tamp it down to remove air pockets and ensure good contact with the surrounding soil. Finish by covering the compost and hole.

Seeds can be immediately sown on top of the buried compost, or you can wait for about a month for the compost to further decompose before planting mature seedlings. The compost will continue to break down in the soil, enriching it with nutrients and supporting healthy plant growth.

The use of Tibicos in anaerobic bokashi composting offers several advantages. The anaerobic process preserves a larger portion of organic matter, reducing carbon dioxide emissions compared to aerobic composting methods. The use of buckets with airtight lids helps prevent wild animals from accessing the compost, and the fermented bokashi compost is less appealing to animals.

By utilizing Tibicos in anaerobic bokashi composting, you can effectively recycle organic waste, enrich your soil, and reduce landfill waste while harnessing the benefits of beneficial microorganisms.

8 Probiotic clothing

Probiotic clothing has gained popularity as a natural and eco-friendly way to address unpleasant odors in garments, especially those that tend to get wet or retain moisture. One effective method for creating probiotic clothing is by using a diluted portion of kefir beverage.

To utilize kefir beverage as a remedy for off odors in clothing, you will first need to dilute it with water. Mix approximately one part kefir beverage with three parts water to create a suitable solution. Adjust the proportions as needed based on the strength of the odor or the desired concentration.

Once the solution is prepared, you can apply it to the affected areas of your clothing, such as hats, shoes, or wet suits. Use a spray bottle or a clean cloth soaked in the diluted kefir solution to gently dampen the fabric. Ensure that you cover the areas prone to odors thoroughly.

The beneficial microorganisms present in the kefir beverage can help combat odor-causing bacteria and fungi, contributing to a fresher-smelling garment. These microorganisms work to restore a healthier microbial balance on the fabric's surface, which can reduce unpleasant odors.

It's important to note that the effects of the probiotic treatment may gradually diminish over time or after washing the clothing with regular laundry detergent. Therefore, it is advisable to reapply the diluted kefir solution periodically, especially if the odors persist.

Additionally, when using probiotic treatments on clothing, it's always a good practice to test the solution on a small, inconspicuous area of the fabric first to ensure it doesn't cause any adverse reactions or discoloration.

By incorporating probiotic treatments like diluted kefir beverage into your clothing care routine, you can naturally address off odors and maintain fresher-smelling garments, particularly for items prone to moisture retention. This eco-friendly approach offers an alternative to conventional chemical-based deodorizers and can contribute to a more sustainable and odor-free wardrobe.

9 Conclusion

In conclusion, tibicos is a versatile and beneficial probiotic beverage that can be enjoyed in various ways. Whether you choose to savor its natural tangy flavor during primary fermentation, explore creative flavor combinations during secondary fermentation, or utilize it as a powerful ingredient in bokashi composting, tibicos offers a range of exciting possibilities. With its rich history, health-promoting properties, and ease of preparation, tibicos is a fantastic addition to a healthy lifestyle. Embrace the art of fermentation and experience the wonders of tibicos, a delicious and nourishing beverage that supports gut health and wellbeing. Cheers to the joy of fermentation and the vibrant world of tibicos!