

August 2005

Greetings from The Herbarie!

Dear Friends,

August in the South means hot and humid! We started off with a wet, cool spring and moved right into a very hot, humid summer. The vegetable garden suffered with the extremes in weather. We have harvested lots of corn, tomatoes and beans, but other crops have been disappointing. The peppers and cucumbers did not produce as they typically do. But, fortunately we were able to harvest enough peppers to make our Hot Pepper Jelly. One of my favorite treats is Hot Pepper Jelly with cream cheese on crackers. Yummy! I was late in planting our Red Velvet Okra, but I am happy to report that it is now about three to four feet tall. It has not started producing yet, but should very soon. With its exotic looking crimson leaves and yellow flowers, okra makes a lovely edible ornamental in our garden bed. At Stoney Hill Farm, we have mixed flower, herb and vegetable beds and often welcome our volunteers as well! Our Okra shares space with our volunteer Zinnias. Our roses share space with our Lemon Balm and Basil -- and all seem very happy. Our basil has done well, which means several batches of Pesto have been made and gone into the freezer. We make our Pesto with pine nuts, parmesan cheese, fresh garlic, extra virgin olive oil and of course fresh basil. The Pesto is then spooned into ice trays, covered with plastic wrap and allowed to freeze. Once the blocks are frozen, just pop them out and store in zip lock freezer bags. My daughters and I both love Pesto and this way we can have it in December!

As much as I love gardening, it has been too hot to do much of it this month. It amazes me how generous our roses continue to be with their blooming in spite of the heat and not very much attention from me! I pruned them back hard after the big spring bloom, just in time to keep the hedonistic Japanese Beetles from wreaking havoc on the flowers. But after resting for a month or so, they now seem ready to share their blooms with us again. The teas especially seem to thrive in the hot, humid weather. I rooted some of these teas from the mother plants about three years ago and they are about two feet tall and wide. Next year they will likely double in size. Today I cut enough blooms to fill three vases and also had a basketful of blossoms to dry for use in our botanical products. Oh yes, I love my roses!

New Products!

We are very happy to share our newest products with you!

FIVE NEW NATURAL GUMS!

- *Acacia Gum
- *Cellulose Gum
- *GuarThix
- *Sodium Alginate
- *XanThix

SKIN SOFTENING LACTYLATE!

- *Sodium Behenoyl Lactylate

SILKY SOFT HAIR CONDITIONER!

- *Incroquat CR Concentrate

FRESH NEW ESSENTIAL OILS!

- *Lemongrass Essential Oil
- *Myrtle Essential Oil
- *Spearmint Essential Oil

A NEW PRESERVATIVE!

- *Suttocide A

LOVELY NEW HYDROSOL!

- *Basil Hydrosol/Distillate

FABULOUS ANTIAGING INGREDIENT!

- *Tamarind Seed Extract

EXQUISITE NATURAL OIL!

- *Abyssinian Oil

Remember you can also use our Google Search to find these products or any Herbarie products on our website.

<http://www.theherbarie.com/new-products.html>

Natural Hydrocolloids

Some of The Herbaries newest products include Acacia Gum, Cellulose Gum, GuarThix, Sodium Alginate, and XanThix. These are all natural, food grade gums. Gums, along with starches are included in a category known as Hydrocolloids. Generally, Hydrocolloids function by dissolving, dispersing or swelling in water to form a stable network. Hydrocolloids offer a wide range of viscosities (thickness) and rheologies (how something pours) which makes them very useful ingredients in many applications in the food, pharmaceutical, and cosmetics industries. Unlike many synthetic polymers and most carbomers, Hydrocolloids do not require neutralization to function properly.

Hydrocolloids are not all the same, but for the most part can be described as long-chain or branched polysaccharides. These long chains contain hydroxyl groups that can bond to water molecules to form stable networks. These water-loving, high molecular weight polysaccharide chains consist of smaller units that are called monosaccharides. Monosaccharides are sugar units such as glucose, fructose or galactose. These sugar units can contain side groups that give each gum its individual characteristics. One source suggests trying to envision these long sugar chains as a three foot length of twine.

Gums are easy to use if we follow a few guidelines:

- The Herbarie gums must be dispersed and mixed properly in room temperature water or other water soluble ingredient, such as the Herbarie Hydrosols/Distillates.
- Once dispersed and mixed, the gums must be completely hydrated.
- After the gums are completely hydrated -- around 15 minutes for all but Acacia Gum and Sodium Alginate - the gums can be heated if this is a requirement of the formula. Acacia Gum and Sodium Alginate require 30 minutes or longer for complete hydration.

Over the past several months I have been busy creating formulas with The Herbaries new gums --Acacia Gum, Sodium Alginate, XanThix, GuarThix, and Cellulose Gum. These new gums work well and often synergistically with our other hydrocolloid products -- VenaSilk, GuarSilk and UltraMaize.

I am fascinated with the functionality and possibilities of the gums and starches and we are pleased to offer our clients this formulating option.

[As a reminder, The Herbarie formulas are set up in percentages and calculated by weight (grams) -- I typically calculate a 500 gram batch for each formula. It is important to use an accurate scale. A scale that weighs to a tenth of a gram (0.1 gram) is perfect for most formulas. We offer an excellent scale - the iBalance 2600 - that you may want to consider:

<http://www.theherbarie.com/equipment.html>

ACACIA GUM

The Herbaries Acacia Gum is derived from the sap of the African acacia tree. It is a low viscosity, multifunctional natural emulsifier and stabilizer. Acacia Gum has been used since ancient times and is known for its demulcent and anti-inflammatory qualities. Acacia Gum is often used in soft drinks to emulsify flavor oils. Since Acacia Gum is very low viscosity and does not have thickening characteristics, it is perfectly suited to making all natural mists for skin and hair care. Acacia Gum is the only all natural emulsifier of this type that I have seen and used with success. For my sprayable mists, I typically use 2-5% Acacia Gum to emulsify 0.5-2% oil into water. Here is a simple formula calculated on a 500 gram batch.

NATURAL ACACIA MIST

Acacia Gum 2.0% = 10 grams

Hydrosol or Distilled Water 97.1% = 485.5 grams

Essential Oil or Fragrance Oil 0.5% = 2.5 grams

Suttocide A 0.4% = 2 grams

*Citric Acid

Total:100% = 500 grams

Add Acacia Gum to room temperature distilled water (or hydrosol) with mixing. A hand held whisk can be used or a hand held stick blender can be used. Set aside and allow Acacia Gum to hydrate for at least 30 minutes. When Acacia Gum is completely hydrated (after at least 30 minutes), add Essential Oil or Fragrance Oil and mix well with a whisk or stick blender. Add Suttocide A and mix well.

* Add citric acid to adjust finished pH to 5.5-6.5. Package.

Notes and Tips:

-Acacia Gum is anionic

-Acacia Gum is acidic when added to water with a pH around 4.5-5.0.

-Suttocide A is alkaline when added to water with a pH around pH 10-11.

-The pH of this formula will be around 9.0 prior to adding citric acid.

-To make this formula with Suttocide A and Citric Acid, a pH meter is needed.

-Optiphen (1.0%) can be used instead of Suttocide A and the finished pH will not need to be adjusted.

-Optiphen is somewhat oily and may require more Acacia Gum to emulsify properly.

-After dispersing and hydrating Acacia Gum into water some residue can sometimes develop on top of the dispersion. For lotions or creams this is not a problem, but for a sprayable mist, this is undesirable. The residue can be skimmed off prior to adding the oils to form the sprayable emulsion.

Tips for Lotions and Creams

-When making a lotion or cream with Acacia Gum, disperse and hydrate for a minimum of 30 minutes. Add the remainder of the water phase ingredients and heat as usual.

-A double boiler works well to thoroughly heat the hydrated gums without burning.

-For lotions and creams, co-emulsifiers are usually needed to form a stable emulsion.

I have used Sodium Stearoyl Lactylate, Sodium Behenoyl Lactylate, Soy Lecithin HLB 7 and HLB 4 in various combinations along with Acacia Gum. Thickeners, such as XanThix, Cellulose Gum, Sodium Alginate and VenaSilk are good choices to increase viscosity and improve stability and skin feel in lotions and creams.

ACACIA NATURAL LOTION

This formula features The Herbaries unique emulsifier blend of Acacia Gum, XanThix, Sodium Stearoyl Lactylate and Lecithin. These food grade emulsifiers, along with cetearyl alcohol, work synergistically to provide structure and stability. This unique emulsifier blend also functions to moisturize and condition, leaving the skin soft and silky. We have included our new exquisite Abyssinian Oil, along with our Calendula Extract, to provide conditioning and lovely emolliency.

Our new Sodium Behenoyl Lactylate can be substituted for Sodium Stearoyl Lactylate. Try both and see which you like best!

<http://www.theherbarie.com/theherbarie/formulary/Acacia-Natural-Lotion.pdf>

ABYSSINIAN OIL

What a lovely, light oil with an exquisite skin feel! Abyssinian Oil has a unique molecular structure not found in any other naturally occurring oil. It contains a high percentage of unsaturated C22 fatty acids, but is very stable against heat breakdown and is highly resistant to oxidation. Abyssinian Oil is perfect in creams, lotions, lipstick, lip gloss, foundations and will impart silky conditioning without greasiness. Abyssinian Oil provides a natural luster and an emollient feeling to hair care products

<http://www.theherbarie.com/naturaloils.html>

CELLULOSE GUM

The Herbaries high viscosity, pharmaceutical quality, natural source Cellulose Gum produces a lovely clear, thick gel when dispersed into water. This product can be used to make skin care gels, hair care gels or as a thickener for shampoo and body wash. Cellulose Gum can also be used to thicken emulsions and other water soluble products.

I really enjoy using our new Cellulose Gum and I think you will too! Cellulose Gum is very, very similar in functionality to Extraordinary XG, but much less expensive. We have therefore decided to discontinue the XG and have replaced it in all our formulas with Cellulose Gum. Cellulose Gum will form a clear gel with a lovely rheology when used from 0.5% to 2%. Here is a simple formula to make Aloe Vera Gel into a gel.

SOOTHING ALOE VERA GEL

Simply add Cellulose Gum to room temperature liquid Aloe Vera Gel, mix and hydrate for about 15 minutes. Other water soluble ingredients, such as glycerin, Hydrolyzed Oats, Botanical Extracts, and Hydrosols can be substituted for part or all of the Aloe Vera Gel liquid.

Part A

Aloe Vera Gel (liquid) 98.1% = 490.5 grams

Cellulose Gum 1.5% = 7.5 grams

Part B

Liquid Germall Plus 0.4% = 2 grams

Total: 100% = 500 grams

In Part A, create a vortex by stirring water, sprinkle Cellulose Gum onto Aloe Vera Gel (liquid). Stir until mixed. Allow to hydrate with intermittent mixing. Stir Part B into Part A. Package in Malibu tubes or jars.

Notes and Tips:

-Cellulose Gum is anionic

-Cellulose Gum is high viscosity, so very little is needed to make a thick gel product.

Dispersion and Hydration

-For proper dispersion of gums into water, the gum particles must separate and not clump when they come in contact with water. Improper dispersion results in clumping and what is commonly referred to as fish eyes, ugly, gelatinous globules that just sort of sit there. Good hydration is not possible without proper dispersion.

To encourage a proper dispersion with good hydration, homecrafters have several options.

1. Slowly sift or sprinkle into vortex of liquid when using a whisk or mixer.
2. Dissolve 1 part gum in 5 parts organic solvent (butylene glycol, glycerin etc.) in your existing formula. Add this slurry to rapidly moving water.
3. Dry mixing with other powders or gums to separate particles prior to adding to water.
4. Fish eyes can sometimes be broken up with high shear mixing - for most homecrafters, this would be a stickblender.

<http://www.theherbarie.com/emulsfy.html#cellulose>

GUAR THIX

The Herbaries GuarThix is a food grade guar gum that consists primarily of a nonionic galactomannan (sugar). GuarThix is a very good viscosity builder and stabilizer for shampoo, body wash, creams, lotions, and other personal care products. GuarThix has a nice synergy with the other gums, but is especially nice when used with XanThix. As with the other gums, GuarThix easily disperses in room temperature water and must be completely hydrated to function properly. Once GuarThix is hydrated, it can be heated.

GuarThix is a distinctly different product from GuarSilk. GuarSilk is a cationic derivative of guar gum. GuarThix is natural guar gum that has undergone a special manufacturing process to help with dispersion and hydration. GuarThix is nonionic and is a thickener, rather than a conditioner.

Also, please note that formulas containing surfactants, thickeners, essential oils and fragrance oils often require trial and error before perfection is achieved. I recommend making lots of small batches. Very often my initial batch size is 250 grams or less.

LEMONGRASS AND MYRTLE BATH GEL

This formula demonstrates how GuarThix and XanThix can be used together in a body wash formulation to build viscosity.

Our new Lemongrass and Myrtle Essential Oils are wonderful anytime, but especially refreshing for our hot summertime!

<http://www.theherbarie.com/theherbarie/formulary/Lemongrass-and-Myrtle-Bath-Gel.pdf>

SODIUM ALGINATE

The Alginates are derived from brown algae (Phaeophycota). Sodium Alginate is a natural, water-soluble polysaccharide that produces a flowing gel consistency when hydrated. Sodium Alginate has been used in the medical field, in the food industry, and more recently in cosmetics as a skin care ingredient.

The Herbaries Sodium Alginate can be used to make a viscous solution or serum with excellent skin feel. When combined with calcium sulfate a soft gel will form (calcium sulfate will be on the website soon!) Sodium Alginate will soften, hydrate, and soothe skin and leave it feeling silky and soft. To create a skin care serum or gel-like hair care product using water, infusions, distillates, extracts, etc., add 1-2% Sodium Alginate and hydrate for 30-60 minutes.

For oil containing (emulsified) serums, combine Sodium Alginate with The Herbarie's Acacia Gum, Olive Oil PEG 7 Ester, AquaEm, or other emulsifier. Sodium Alginate is also useful as a natural viscosity builder and additive for creams, lotions and other products.

Notes and Tips:

- Sodium Alginate is anionic.
- Easily dispersible in room temperature water (allow 30 to 60 minutes for complete hydration)
- Compatible with a variety of emulsifiers and other skin care ingredients
- Excellent nutrient and carrier for antioxidants and other anti-aging ingredients
- Elegant feel
- pH in solution is around 8.5-10.5

Here is a formula that will demonstrate how Sodium Alginate, XanThix and Acacia Gum work synergistically.

ACACIA ALGINATE SKIN RENEW SERUM

Hydrating and skin smoothing botanicals in a gel! Acacia Gum, XanThix, and Sodium Alginate, provide the basic emulsion structure for this skin care serum! These multifunctional, natural emulsifiers and thickeners will also soothe and soften skin. Herbarie PhytoE Complex and Antioxidant Complex T5 are rich in antioxidants to combat environmental stress on skin. The oil soluble Calendula Extract offers a nutrient-rich, light emolliency. Tamarind Seed Extract and *Matrixyl 3000 offer moisturization and skin smoothing characteristics, thereby reducing the appearance of fine lines and wrinkles. This nutrient-rich serum is excellent for all skin types.

Part A

Distilled Water 69.85% = 349.25 grams
Chamomile Extract 5.0% = 25 grams
Antioxidant Complex T5 5.0% = 25 grams
Acacia Gum 3.0% = 15 grams
XanThix 0.75% = 3.75 grams
Sodium Alginate 1.0% = 5 grams
Citric Acid Solution q.s

Part B

Calendula Extract Oil Soluble 1.0% = 5 grams
PhytoE Complex 1.0% = 5 grams
Olive Squalane 1.0% = 5 grams

Part C

Tamarind Seed Extract 5.0% = 25 grams
Matrixyl 3000 2.0% = 10 grams
Rose Phytolate 5.0% = 25 grams
Liquid Germall Plus 0.4% = 2 grams

Total:100% = 500 grams

Combine ingredients in Part A (except Citric Acid Solution) and mix . A hand held whisk works well. Allow to mixture to hydrate for at least 30 minutes, mixing every few

minutes as mixture begins to thicken. Add Citric Acid Solution to Part A ingredients until pH is adjusted to 6.0. Add Part B to Part A and mix with a hand held whisk or stick blender. Add Part C to A and B with mixing. Can be packaged in bottle with disk top or pump.

For best skin tightening and smoothing results results, apply Acacia Alginate Skin Renew Serum after cleansing and toning. For dry skin. follow Acacia Alginate Skin Renew Serum with your favorite cream, lotion or facial oil.

*Matrixyl 3000 is an active, anti-aging ingredient based on polypeptide chemistry. It is scheduled to arrive next week and will be on the page with our Botanical Extracts, Complexes and Active Ingredients:

<http://www.theherbarie.com/botanicalex.html>

XANTHIX

The Herbaries XanThix is an excellent natural source choice for thickening shampoo, body wash, lotions, creams and other personal care products. XanThix has not been chemically modified, but has been especially manufactured to improve dispersion when added to water.

XanThix is multifunctional and least sensitive of all the gums to ingredients that are often problematic, such as salt, fragrance oils, alcohol. For example, most liquid surfactants contain varying amounts of salt, which can effect the finished formulation. Even though all of the gums are fairly tolerant of salt, XanThix is especially tolerant of high salt content, as well as fragrance oils and other ingredients that can be problematic. For this reason, XanThix is a particularly good choice as a thickener for surfactant based systems. When XanThix and GuarThix (or GuarSilk) are used together in a formula a very nice synergy develops.

These gums are excellent, natural alternatives to other thickeners, such as Crothix, PEG 150 Distearate, and various synthetic carbomers. Crothix is one of the best choices for creating elegant, clear surfactant based products, but it is not all natural. Elegant products can be created with the gums, but it is more difficult. Sometimes aesthetics must be compromised for the use of an all natural, food grade product.

XanThix is not technically an emulsifier, but will definitely help to stabilize emulsions as it builds viscosity. Keep in mind that XanThix has high viscosity at very low use percentages; usually less than 1% is needed.

CONDITIONING SHAMPOO WITH NATURAL THICKENERS

This formula couples XanThix with our cationic GuarSilk for a substantive, conditioning shampoo.

<http://www.theherbarie.com/theherbarie/formulary/Conditioning-Shampoo-with-Natural-Thickeners.pdf>

ACACIA ANTI-FRIZZ HAIR MIST

In addition to its emulsification properties, Acacia Gum will smooth frizzies and add body to dry flyaway hair. Our website Formula utilizes Rosemary Hydrosol/Distillate in place of distilled water. I have also used Rose or Melissa Hydrosol/Distillate in the same formula. My most recent batch utilizes Herbarie Melissa Hydrosol with our new Lemongrass and Myrtle Essential Oils.

This is currently one of my favorite leave-in hair conditioners and I love the fresh, clean scent!

<http://www.theherbarie.com/theherbarie/formulary/Acacia-Anti-Frizz-Hair-Mist.pdf>

LEMONGRASS, MYRTLE, SPEARMINT ESSENTIAL OILS

Green-citrus, clean, refreshing!

Lemongrass, Myrtle and Spearmint are some of my most favorite summer scents!

<http://www.theherbarie.com/essential.html>

SUPER SILKY HAIR CONDITIONER

We have combined two of the best cationic hair conditioners: Incroquat BTMS-50 and our new Incroquat CR Concentrate. These two excellent products make one Super Silky Hair Conditioner formula! We've included two emollients: Extra Virgin Coconut Oil and Crodamol STS. Crodamol STS improves wet-combing and will impart a lovely sheen to hair. Coconut Oil has traditionally been used for hair conditioning for many years. The fresh coconut scent is an added bonus! Hydrolyzed Wheat Protein and dl panthenol will nourish and smooth the hair shaft. GuarSilk, our cationic guar gum derivative, provides extra conditioning to the formula. Altogether this formula will leave hair feeling soft and super silky!

Part A

Distilled Water 84.8% = 424 g

GuarSilk 0.4% = 2 g

Hydrolyzed Wheat Protein 2.0% = 10 g

dl Panthenol 2.0% = 10 g

Part B

BTMS-50 2.0% = 10 g

CR Concentrate 4.0% = 20 g

Crodamol STS 2.0% = 10 g

Extra Virgin Coconut Oil 2.0% = 10 g

Part C

Fragrance or Essential Oil 0.5% = 2.5 g

Liquid Germall Plus 0.3% = 1.5 g

Total:100% = 500 grams

Hydrate GuarSilk in room temperature distilled water and blend/mix well. Add the remainder of Part A ingredients and heat Part A to 75C/170F . Heat Part B until solids are melted at approximately 170F/75C. Add Part A to B with mixing. Continue to mix until cool. At 50C/122F (or less), add Part C with mixing.

The Herbaries BTMS-50 and Incroquat CR Concentrate can be found here:

<http://www.theherbarie.com/emulsfy.html#cellulose>

New Website - The Cosmetic Formulator

We are pleased to announce a new supplier website! Pam Ingle is the owner/formulator of the new www.cosmeticformulator.com. The Cosmetic Formulator offers ingredients for mineral makeup including cosmetic and mineral fillers, inorganic pigments, emulsifiers, waxes and gels and a formulary to demonstrate how these products can be utilized.

Be sure to visit this website soon!

<http://www.cosmeticformulator.com/>

COMING SOON!

Matrixyl 3000 - New pentapeptide active antiaging ingredient from Sederma.

Mini-mixer - Handy new tool for mixing small batches!

The Herbarie Formulary in hard copy! - Our online Formulary will be soon be available in a printed, hard copy format. Formulas and tips that are currently on the website will be included, but there will be additional formulation tips, guidelines, and new formulas as well.

Be sure to check our New Products page to see what is new!

<http://www.theherbarie.com/new-products.html>

SUMMER DAYS AND AUTUMN THOUGHTS

We have recently had a change in the weather, with temperatures the past couple of days in the 80F range. This has been a beautiful, perfect morning and the feel of Fall is definitely in the air. I was out in the garden very early and was surrounded by hummingbirds, bees, and butterflies, all very busy in their mission to get nectar from the feeders and flowers. But in their busy-ness, they surely seemed to be enjoying themselves. To be among them felt very special and almost magical to me.

Many of us rush around trying to take care of responsibilities and handle all that needs to be done in our too busy lives. Times like this remind me to simply slow down every now and then to smell the roses -- or I may miss the opportunity. There is no doubt that time passes quickly and the importance of enjoying the moment is brought to mind as the seasons begin to change.

I thought I would close this issue an excerpt from an essay by Ralph Waldo Emerson.

Essay VI - Nature

There are days which occur in this climate, at almost any season of the year, wherein the world reaches its perfection, when the air, the heavenly bodies, and the earth, make a harmony, as if nature would indulge her offspring; when, in these bleak upper sides of the planet, nothing is to desire that we have heard of the happiest latitudes, and we bask in the shining hours.

I hope you have enjoyed this issue of The Herbarie Update. Best wishes to you from Stoney Hill Farm!

Angie Turner

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