

Greetings from The Herbarie!

On this chilly September morning we are reminded that Fall is just around the corner. Even though we are sure to have more hot weather here in South Carolina, the urge to gather and harvest is upon us. So, squirrel-like, I begin my annual harvesting of the dried flower seed heads to save for next spring and summer. There is something about gathering the zinnia seed heads that is particularly satisfying to me. We purchased Stoney Hill Farm in 1996 and these are 8th generation flowers that were planted from seed the first year that we were here. The butterflies, bees and I have been enjoying them every year since. I like to think that I will continue to save the seeds and plant them each spring for many years to come.

Our roses have given us another flush of beautiful bloom and we are harvesting the petals. We use the fresh petals to make our English Rose Marmalade and we use the dried petals in a multitude of different products.

We harvested our second crop of sweet corn a few weeks ago. If the corn is harvested and frozen within a few hours, the sugars will not convert to starch and the corn will be just as sweet when it's cooked in January as it is when it's fresh.

Our tomatoes didn't do as well this year. I planted them deep-thinking that we would again have a drought this summer as we did in 2002. But this has been the rainiest summer in many, many years. Unfortunately, many of the plants developed fungus disease since they were too wet in our heavy clay soil. We did get a few of the luscious Rose tomatoes though!

But other plants loved the rain and did very well. Our lemon balm has been thriving all spring and summer long and we've made a lot of our favorite lemon balm and rosemary mint tea-my favorite refreshing drink in the hot summertime!

We've also had an overabundance of basil again this year. As all cooks and gardeners know, it's important to keep cutting basil to keep it from flowering. So we have been doing this all summer. The fresh scent of basil smells like summertime to me! Fresh basil is good in almost all vegetable dishes and is delicious on sandwiches instead of lettuce. One of my favorite summer sandwiches is layered with fresh basil, thin-sliced avocados, mushrooms, banana peppers, cucumbers, and our Rose tomatoes. I also add Monterey Jack cheese to the sandwich, brush the outside of the bread with olive oil and lightly toast both sides in a pan on top of the stove until the cheese has melted. This makes an absolutely delicious and nutritious sandwich! Basil bruises very easily and must be dried very carefully to retain its flavor. But dried basil is never as good as fresh. My favorite way to preserve the fresh taste of basil is to combine the clean, dry, fresh leaves with some extra virgin olive oil in a food processor and mince. Then spoon the mixture into quart size freezer bags and flatten to about ¼ inch. Close the bag and freeze flat on a cookie tray. Several of these can be

made at once and then stacked in the freezer for use throughout the year by simply breaking off a chunk to toss into a stir fry or stew or whatever. We've made enough pesto to last us all winter and we've given away and dried as much as possible---still we have huge 4X5 shrubs of basil! So, I've decided to let it flower so the hummingbirds and bees and butterflies can enjoy it.

I have to confess a fascination with hummingbirds that stems from my childhood. They have always seemed magical and fairy-like to me. So, I've planted lots of flowers that hummingbirds love and also have lots of feeders around with sugar water for them. I just love to watch them. I read an article not long ago about how hummingbirds never perch. Well, the ones at Stoney Hill Farm DO perch! As I am typing this, one female is perched on the top of the feeder just outside my window. She sits there keeping watch, but occasionally buzzes down for a drink of the sugar water or to chase away other hummingbirds---this is HER feeder! They are so cute and so feisty and they make me smile!

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Being close to the earth is a necessity in my life and gardening is a very important part of what we do at Stoney Hill Farm. To me, gardening means planting, cultivating, nurturing, harvesting, handling, processing and most of all, appreciating our herbs, flowers, trees and veggies. Our gardening philosophy is based on understanding the needs and the nature of our plants to help them reach their potential---it's a give and take relationship. These gifts of nature are food for my soul as well as my body and the whole gardening process brings balance to my life.

We carry mostly natural source ingredients at The Herbarie. Many of our dried botanicals are grown organically in our own garden. Some of these natural source ingredients are standardized or fractionated and some of our ingredients are synthetic. We are often asked about whether or not an ingredient is natural or "whole". To me, "what is natural?" is really a philosophical question. It is certainly a question that can have many answers. My own philosophy is that once a flower or herb or bark or seed or root is harvested, the transformation begins---both chemically and physically. For example, the essential oils are distilled from plants and flowers. Certain components-wonderful components---are in the essential oil, but the original plant has been transformed and the whole plant, as it was once known, no longer exists. Only a fraction of the plant is available in the essential oil. The same thing happens with a cold pressed oil and other naturally derived ingredients. Therefore most of the natural products have been transformed in one way or another. This isn't bad or good, it just IS.

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The products that we sell at The Herbarie are carefully chosen. The decision is based on several factors. The number one criterion is that we must like the ingredient and feel it's useful in terms of functionality. Then we identify the best quality and pricing available. Fortunately, we are now purchasing most products

in very large quantities from the manufacturer. This enables us to pass the savings on to our customers.

But, before we add any product to our inventory, we carefully review as much information as possible. This includes any technical information available from the manufacturer, available toxicology data, etc. Once the safety and toxicology issues of the product are determined to our satisfaction, then we begin our own experimentation. If it meets our expectations, then it becomes a part of our inventory. We make it our business to know our products.

We offer vegetable source products whenever possible, since most of our customers prefer them---products such as UltraMaize, NatraMulse, Polyglucose/Lactylate Surfactant Blend, Botanicals, Extracts and our newest emulsifiers. But if we determine that a synthetic product is a good choice from a toxicology, functionality, and pricing standpoint then we have no problem including it in our inventory. EmEster is one example of a synthetic ingredient that has excellent reports in toxicology and sensitivity studies. We chose it for this reason and because it has superb functionality in many applications.

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As promised, we are offering some new emulsifiers this Fall! Sorbitan Stearate, Sorbitan Oleate, Polysorbate 80, Polysorbate 60, and Lecithin---all vegetable derived.

Sorbitan Stearate - Vegetable source, water-in-oil emulsifier with a low HLB of 4.7. Our Sorbitan Stearate comes in cream colored, easy to use pastilles. When it is combined with Polysorbate 60 (HLB 14.9), it makes a luscious cream or lotion! It can also be used with any of the other high HLB emulsifiers. INCI Name: Sorbitan Stearate.

Sorbitan Oleate - Vegetable source, oil-in-water emulsifier with a low HLB of 4.3. It comes in a liquid form which makes it perfect for use in dispersible bath oils when combined with Polysorbate 80 (HLB 15)! Sorbitan Oleate is excellent for use as a co-emulsifier for lotions and other emulsions. Sorbitan Oleate is particularly suited to formulations that contain vegetable oils. It can be used with Polysorbate 80 or any other high HLB emulsifiers. INCI Name: Sorbitan Oleate. Physical Form: Gold colored liquid.

Polysorbate 80 - Vegetable source, oil-in-water emulsifier with an HLB of 15. Can be combined with low HLB emulsifiers to form stable emulsions, especially when used with fatty alcohols, such as cetearyl alcohol. A classic emulsifier combination is Polysorbate 80 and Sorbitan Oleate. Polysorbate 80 is also useful as a dispersant and solubilizer. Use with Sorbitan Oleate and a vegetable oil to make the perfect dispersible bath oil! INCI Name: Polysorbate 80. Physical Form: Gold colored liquid.

Polysorbate 60 - Vegetable source, oil-in-water emulsifier with an HLB of 14.9. Can be combined with low HLB emulsifiers to form stable oil-in-water emulsions, especially when used with cetyl or stearyl alcohols. A classic emulsifier combination is Polysorbate 60 and Sorbitan Stearate. INCI Name: Polysorbate 60. Physical Form: Viscous, semi-solid at room temperature.

Soy Lecithin - Soy Lecithin comes in a variety of physical forms and each will have a different HLB value. The Soy Lecithin that we offer has an HLB of 4.0, which makes it a water-in-oil emulsifier. It comes as a viscous, amber-colored liquid. It can be combined with one of the high HLB emulsifiers to form an oil in water emulsion. Soy Lecithin and Olive Oil PEG 7 Esters make a particularly nice emulsifier combo for a cream or lotion. INCI Name: Lecithin. Physical Form: Amber, viscous liquid.

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Now, I'll summarize the emulsifier possibilities here at The Herbarie. I've also included my own thoughts and opinions. I've divided the emulsifier choices into two categories: 1) Self-Emulsifiers and 2) Emulsifier Combos.

The Self-Emulsifiers have many advantages. For one, they make it easy to create emulsions. There is no need to calculate HLB, since it has already been done. The self-emulsifiers don't need any additional emulsifiers---they are complete. I liken these to instant cake mixes-just add water, a couple of eggs and butter and voila! You have cake---or in this case, we add veggie oils and butters and get lotion or cream. In addition to ease, the Emulsifying Conditioner and the NatraMulse simply make wonderfully, luscious creams and lotions!

The Herbarie's favorite self-emulsifiers include:

Emulsifying Wax NF or Polawax - reliable and easy to use-popular choice for many homecrafters.

Conditioning Emulsifier - Cationic emulsifier, very substantive to hair and skin. Elegant, exceptional feel. Great for hair conditioners or creams and lotions. Superb--one of the best.

NatraMulse - New to the market-cutting edge anionic emulsifier. Based on the lactylates, which are actually food-grade conditioners, as well as emulsifiers; manufacturer claims "all natural". Rich, emollient feel. May not be compatible with certain cationic ingredients.

UltraMaize - I'll include UltraMaize in this category even though I don't recommend it as the only emulsifier for creams and lotions. I think it works best as a co-emulsifier in these applications. However, It makes a fantastic gel product when it is combined with water or herbal infusions or hydrosols. It makes a great skin-soothing gel. It will hold a small amount of oils also.

To use Emulsifier Combos, one must have an understanding of HLB or Hydrophilic-Lipophilic Balance. I won't go into details here, since there is so much information already available on the HLB system. But I urge you to learn

about this system of creating emulsions. There are some excellent HLB calculators available from various sources, but I think it is very beneficial to first learn how to do the calculations by hand-it makes more sense that way.

The Herbarie's favorite emulsifier combos:

Cetareth 20/Glyceryl Stearate - Creams or lotions where a light, but emollient feel is desired.

Soy Lecithin/Olive Oil PEG 7 Esters - Rich emolliency, conditioned feel. Use with vegetable butters or fatty alcohols to increase viscosity.

Polysorbate 60/Sorbitan Stearate - Rich emolliency. Excellent choice for creams. Good for lotions.

Polysorbate 80/Sorbitan Oleate - Creams or lotions where a light, but emollient feel is desired.

I have provided some suggestions for emulsifiers, but the possibilities are really endless! I will mention also that professional formulators often use more than one emulsification system in their formulations to ensure stability. Some ingredients that can enhance stability are VenaSilk-which is one of my favorites, also Cetyl Alcohol or any of the fatty alcohols, and UltraMaize.

All of the emulsifiers and self-emulsifiers can be found on this page:

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

We've also brought in two other new and exciting products! One is a botanical extract-Green Tea Extract; and the other is Canadian Glacial Clay! We are so pleased to offer both of these new items.

Green Tea (*Camellia sinensis*) is known worldwide for its antioxidant and astringent qualities. To produce green tea from the *Camellia sinensis* plant, the harvesting and steaming of the fresh, green leaf must take place under carefully controlled conditions. Green tea is used both internally and externally. However, our Green Tea Extract is for external use only. You can find it on the page with our Botanicals and Proteins. <http://www.theherbarie.com/botanicalex.html>

Canadian Glacial Clay is found in the remote Pacific islands of North Western Canada, surrounded by the Pacific Ocean in this uninhabited wilderness among some of the world's roughest waterways, it is from this naturally guarded area that the treasured green/grey glacial clay is found in rare deposits. It is considered to be the 'crème de la crème' of clays for cosmetic and therapeutic applications. The Canadian Glacial Clay that we offer is finely powdered and readily mixes with water, hydrosols or other water soluble liquids. The Canadian Glacial Clay can be found on the page with our Other Ingredients. <http://www.theherbarie.com/ingredients.html>

We are still in the process of adding these new products and others to our website shopping cart. If you wish to order any of these new products that are not yet on the website, just send me an email or mention the new products in the comments section of the online shopping cart.

Our website Formulary was updated several weeks ago to include some of our newer formulas. <http://www.theherbarie.com/herbarie-formulary.html>

We will be creating even more formulas over the next few weeks, but here some simple, basic formulas to give you an idea of how the new emulsifier combos can be utilized.

#### Soy/Olive Lotion

This formula utilizes two of my favorite emulsifier combos-Soy Lecithin and Olive Oil PEG 7 Esters. VenaSilk provides emollient silkiness and additional stability. Hydrolyzed Soy Protein will help the skin to retain moisture. Botanical Complex LSC enhances the overall feel of the emulsion and provides the skin conditioning benefits of Calendula, Chamomile, Rose, White Willow Bark, Red Clover, and Elder Flower Extracts. This lotion formula is quite thick and is perfect for packaging in a bottle with a lotion pump. It could be converted to a cream formula by adding 2-4% more solids, such as fatty alcohols or butters. It can also be thickened to a cream consistency by adding UltraMaize to the finished lotion.

#### Part A - Water Phase

1.0% VenaSilk - 5 grams  
2.0% Glycerin - 10 grams  
2.0% Hydrolyzed Soy Protein - 10 grams  
76.6% Distilled Water - 383 grams

#### Part B - Oil Phase

2.0% Olive Oil PEG 7 Esters - 10 grams  
1.0% Soy Lecithin - 5 grams  
3.0% Shea Butter - 15 grams  
2.0% Cetearyl Alcohol - 10 grams  
1.0% Behenyl Alcohol - 5 grams  
4.0% Jojoba Oil - 20 grams  
2.0% Extra Virgin Olive Oil - 10 grams  
2.0% Botanical Complex LSC - 10 grams

#### Part C - Cool-down Phase

1.0% Tocopherol - 5 grams  
0.4% Liquid Germall Plus - 2 grams

100% Total = 500grams

- Heat distilled water to 176F/80C. Add VenaSilk, mix well and allow to hydrate for 10-15 minutes, then add remainder of Part A ingredients.
- Heat all ingredients in Part B until solids are melted.
- Combine Part A and Part B at 170F/75C with mixing.
- Continue mixing until emulsion cools to 122F/50C or less. Add Part C ingredients.

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#### Classic Cream

Polysorbate 60 and Sorbitan Stearate - I've used this classic combo of emulsifiers to make a thick and luscious cream. Hydrolyzed Oats will increase moisture retention, as well as add a nice feel to the finished product. EmEster provides light emolliency and the perfect "slip" in application.

#### Part A - Water Phase

- 2.0% Glycerin - 10 grams
- 2.0% Hydrolyzed Oats - 10 grams
- 79.6% Distilled Water - 398 grams

#### Part B - Oil Phase

- 1.5% Sorbitan Stearate - 7.5 grams
- 1.5% Polysorbate 60 - 7.5 grams
- 2.0% Shea Butter - 10 grams
- 6.0% Jojoba Oil - 30 grams
- 2.0% Cetearyl Alcohol - 10 grams
- 2.0% Behenyl Alcohol - 10 grams
- 1.0% EmEster - 5 grams

#### Part C - Cool-down Phase

- 0.4% Liquid Germall Plus - 2 grams

100% Total = 500 grams

Heat Part A ingredients to 170F/75C. Heat Part B ingredients to 170F/75C. Combine with mixing. Cool to 122F/50C or less and add Part C.

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#### Dispersible Bath Oil

Polysorbate 80 and Sorbitan Oleate - This combo of emulsifiers when used with vegetable oils and a favorite essential oil makes an excellent, dispersible bath oil. Skin will be left feeling soft, smooth and conditioned, but there will be no oily residue left in the bathtub. If less stable vegetable oils are used, the mixed tocopherols can be added to protect against rancidity. A preservative, such as LiquaPar Optima or LiquaPar Oil can also be used.

- 83% Jojoba (or vegetable oil of choice) - 415 grams
- 10% Polysorbate 80 - 50 grams

5% Sorbitan Oleate - 25 grams  
2% Clary Sage or skin safe essential oil - 10 grams

100% Total = 500 grams

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So, now it's time to get outside and enjoy some of this gorgeous early Fall weather! Time to harvest the grapes and the last of the summer vegetables. Before long we'll till part of our garden and sow our cover crop of red clover and rye grass. Last year I rooted some cuttings of our antique roses and now it's time to plant them in our garden. We plan to build another arbor in the center of the enclosed garden for Crepescule, the gorgeous noisette climber. Lots to do!!

We hope you've enjoyed this issue of The Herbarie Update. Your comments and suggestions are always welcome.

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