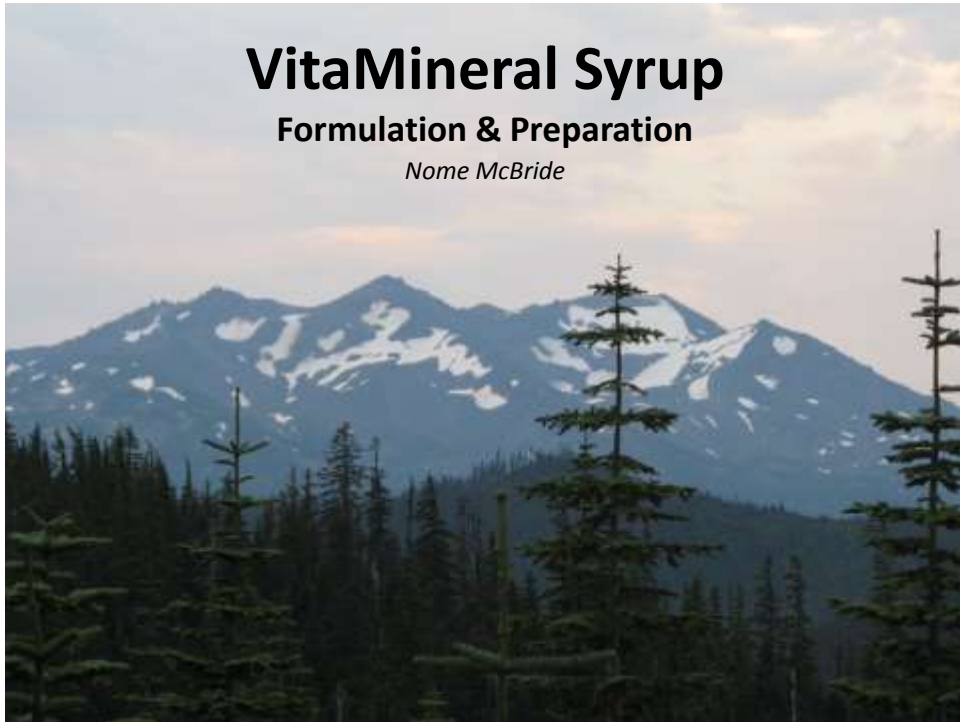


# VitaMineral Syrup

## Formulation & Preparation

*Nome McBride*



Hello:

My Name is  
Nome McBride



→People – Plants – Place →→People – Plants – Place →People – Plants –  
Place →People – Plants – Place →People – Plants – Place →People – Plants –  
Place →People – Plants – Place →People – Plants – Place →

- **Ethics of Herbalism**

- Safety
- Identification
- Self Practice
- Develop personal relationship to each plant individually.

- This class is not a substitute for training in wildcrafting or herbalism, but it should help.

\*\*\*😊\*\*\*

## LEARNING OBJECTIVES!

1. Principles of herbal syrup formulation.
2. Aqueous extraction of berries, roots, barks: decoction
3. Aqueous extraction of leaves and flowers: infusion
4. Aqueous extraction of mucilage: cold infusion
5. Properties of Althea spp: mucopolysaccharides, vitamins
6. Basic concentration of herbal extracts.
7. Properties of Rosa spp. fruit: ascorbic acid, minerals, vitamins.
8. Properties of Urtica spp: flavonoids, minerals, etc.
9. Properties of Althea spp: mucopolysaccharides, vitamins.
10. Properties of spirulina and marine algae.
11. Properties of cinnamon.
12. Properties of Silybum marianum.
13. Properties of honey as preservative.

## THE MAGIC FORMULA

AQUEOUS EXTRACTION OF BERRIES, ROOTS, BARKS, MUSHROOMS–  
“DECOCTION”

### DECOCTIONS

- For botanicals with hard cell walls.
- More pressure is needed to extract constituents.
- Use a ratio of ~1:6, w:v, grams of herb:mL water
  - Exact ratios can depend on herb used. 1:5-1:10 standard
- Bring water to a boil. Add ground (not powdered) herbs to pot. Simmer for 1.5 hrs-3 hrs. with cracked lid. Let herbs steep in covered/sealed pot/jar for 6 more hours.
- Strain twice.
- This is a 1x decoction.

## THE MAGIC FORMULA

AQUEOUS EXTRACTION OF LEAVES, FLOWERS, AERIALS– “INFUSIONS”

### INFUSIONS

- For botanicals with soft cell walls.
- Less pressure is needed to extract constituents, so simply pouring boiled water over them is enough.
- Use a ratio of ~1:20, w:v, grams of herb:mL water
  - Exact ratios can depend on herb used. 1:10-1:20 standard.
- Bring water to a boil. Let boil die in pot. Pour over herbs, stirring well so no herbs are left dry. Cover/seal for 8 hours.
- Strain twice.
- This is a 1x infusion.

# THE MAGIC FORMULA

AQUEOUS EXTRACTION OF ANY PLANT PART CONTAINING MUCILAGE – “COLD INFUSIONS”

## COLD INFUSIONS

- For botanicals with MUCOPOLYSACCHARIDES.
- COLD water is needed to extract constituents, so simply pouring room temp water over them, is not enough.
- Use a ratio of ~1:15, w:v, grams of herb:mL water
  - Exact ratios can depend on herb used. 1:10-1:15 standard
- Chill water ahead of time. Pour over herbs and seal in a closing jar. Place in refrigerator 8 hours.
- Strain twice.
- This is a 1x Cold Infusion.

## THE MAGIC FORMULA (almost)...

**Base Tea 20X:** 171mL x 10x = 1710mL.      Tea at 1:20 = **214g:4280mL H2O**  
214g    →    Nettles - 142g      Alfalfa - 72g

**Soothing Tea 15X:** 43mL x 10x = 430mL.    Tea at 1:15 = **43g:645mL H2O**  
43g      →      Marshmallow root – 43g

**Active Tea 10X:** 214mL x 10x = 2140mL.    Tea at 1:6 = **357g:2140mL H2O**  
357g    →    Rose Hips – 243g      Yellow Dock Root – 114g

Preparation of each Tea is based on the herbs chosen. In this case, the Base is an infusion because it happens to be leaves. The Soothing is generally a cold infusion, to extract mucilage, and in this case the Active is a decoction because the plant parts are berries and roots. It could all be different with a different selection of herbs. All three could be decoctions, etc etc....

## PRINCIPLES OF BOTANICAL SYRUP FORMULATION

### Why Syrup?

- Syrups Taste Great. Compliance means results, if you have a good formula.
- Synergistic Combinations create results.
- Minerals in the syrup stimulate absorption.
- It can be a tonic to replenish cells, in addition to the more acute herbs.
- Unlike a tea or tincture, syrups have so many applications – by the spoonful, pancakes, yogurt, ice cream, tea and coffee, nut butter sandwich and syrup, smoothies, ice cubes, desserts, etc.

## PRINCIPLES OF BOTANICAL SYRUP FORMULATION

- Determine use and application  
–Sore Throat, Cold, Flu, Anti-Inflam,  
Antibiotic, Immunomodulator, etc.
- Derive Best Botanicals for Actions,  
Physical Consistencies, and Flavor
- Formulate and Prepare it

# UNDERSTANDING THE INGREDIENTS

## Base Herbs – Minerals & Soothing Herbs

- Minerals, Calming Herbs
  - Nettles, alfalfa, raspberry leaf, tulsi, marshmallow leaf
- Soothing Herbs – Demulcents
  - Marshmallow, mullein leaf, comfrey leaf, slipper elm, oats, licorice

## Action Herbs

- Action Herbs – Symptomatic
  - If not H<sub>2</sub>O solvent, must use as additive.
  - May be premade as its own blend of botanicals that is put into the Base Herbs. (in liquid form)
  - Anything you need can be used.

## Additives

- powders – spirulina/greens, mushrooms, pollens
- tinctures – acute symptomatic herbs, preservatives
- glycerites – acute symptomatic herbs, preservatives for children

## Preservatives

- Honey is both preservative and has herbal actions
- Vegetable Glycerin
- Tinctures (Ethanol) – can both preserve and have other actions.
- Molasses is good as a part of the preservative, or as the main preservative.

# THE MAGIC FORMULA

## RECIPE STEPS OVERVIEW

- Make Teas, Concentrate, Blend together
- Mix in the Preservatives
- Mix into this the Additives.
- Do not use blender! Stir like crazy.
- Pour into dosage bottles. Label.

# THE MAGIC FORMULA

## RECIPE - To Make 3L Finished Product

3L= 3000mL                      Ratio Tea:Preservative = 15:85 (1:5.6)

1g=1mL

**Preservative**: 95% Honey & 5% Milk Thistle Tincture (90% EtOH)

- Determine the amount of Preservative to use:
- 85% of the 3000mL = **2550**mL    (2423mL Honey/127mL Tincture)

Total of **Teas and Additives**: 15% of 3000mL = **450**mL

So, 2550mL Preservative and 450mL Tea Concentrates = 3000mL (3L) Batch

# THE MAGIC FORMULA

## RECIPE STEPS OVERVIEW – TEA PREPARATIONS

- Prepare all teas individually, so they are completed at same time with their concentration. Concentrate all teas at least 5x. We will do 15 and 20x.
- Combine teas types as you like. As a starting point, use 40% Base Herbs, 10% Soothing Herbs, 50% Active Herbs.
- The Ratio of Teas:Preservative is 1:4 = 20%:80%
  - When we add powders we need additional preservative so use the ratio of 1:5.6 = 15%:85%
  - These numbers are determined based on the amount of preservative needed to keep the syrup from fermenting.
  - Less preservative can be used, but the syrup will have to stay refrigerated, and still will ferment in time.



# THE MAGIC FORMULA

## TEAS AND ADDITIVES BREAKDOWN

Total of **Teas and Additives**: 15% of 3000mL = **450mL**

Teas: Additives Ratio = 1:.053 = 95/5=100%

So we need 95% of 450mL in **Tea Concentrates** = **428mL**

And we need 5% of 450mL in **Additives** = **22g/mL**

**428mL + 22g = 450mL total needed**

# THE MAGIC FORMULA

## TEA CONCENTRATES BREAKDOWN

**Tea Concentrates** = **428mL**

**Made of: (all 5X or greater concentrates)**

Base Tea Concentrate : Soothing Tea Concentrate : Active Concentrate

\*\*\*100% = 40:10:50

Base Tea: Need 40% of 428mL = 171mL

Soothing Tea: Need 10% of 428mL = 43mL

Active Tea: Need 50% of 428mL = 214mL

Remember those numbers for a minute....

## THE MAGIC FORMULA

Base Tea: Need 40% of 428mL = 171mL

Soothing Tea: Need 10% of 428mL = 43mL

Active Tea: Need 50% of 428mL = 214mL

**Base Tea**: 171mL x 20x = 4280mL. Tea at 1:20 = **214g:4280mL H2O**

**Soothing Tea**: 43mL x 15x = 645mL. Tea at 1:15 = **43g:645mL H2O**

**Active Tea**: 214mL x 10x = 2140mL. Tea at 1:6 = **357g:2140mL H2O**

## THE MAGIC FORMULA

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# THE MAGIC FORMULA

## ADDITIVES BREAKDOWN

**Additives** = **22g/mL**

Spirulina/VitaMineral Green – 10g

Bee Pollen – 6g

Cinnamon – 6g

Weigh and premix together. Run through flour sifter if needed.

## CONCENTRATION!

The main thing you need to make Botanical Extract Concentrations is lots and lots of ..... CONCENTRATION! Focus!

- After making each Tea Extract (2x Strained) begin to concentrate the extract in its own cook pot. Use a pot that is at least 2x larger volume than the amount you are trying to concentrate. A larger pot such as 4x the starting volume will make it go faster.
- Slowly heat the Tea Extracts on a very low heat. Stir every 5-10 minutes, as needed. Make sure it does not burn or bubble or start to boil rapidly. A few rolling slow boils are ok and will not ruin the product, but if this happens turn the heat down some. Expect an hour or two per gallon you are cooking off. This can take many hours. Have no other plans before starting.
- Once the volume is getting close to the final volume pour it out into a pyrex measuring vessel and check often so as to not reduce too far.
- Never re-add water to it.

## **Blending the Syrup's Ingredients**

- The 3 Tea Extracts should have all been concentrated separately, then mix until homogenous on extremely low heat. Stir continually.
- Slowly pour in the Preservatives, while continuing to mix. They do not have to be premixed, and in fact it is not advised to try and pre-mix the honey. Make sure it is warm and runny but not hot before mixing into the warm Tea. Pour in all preservatives one at a time, slowly.
- Stir 5 minutes or more until very well mixed. (whisk)
- The Powders should all be premixed. Slowly add as the Tea and Preservatives mix continues to be stirred.
- Stir 5 minutes or more until very well mixed, and until cool enough to bottle – it shouldn't be much warmer than this when you are doing the final mixing for this entire step. (whisk)
- Pour into bottles.

## **Rose Hips – *Rosa spp.***

- So much Red, no need for NSAID!
- Vitamin C!!! Blaster! And mixed anti-oxidants!
  - Folate
  - Vit. A, B3, C, D, E
- POWERFUL Anti-Inflammatory
  - COX 1 & COX2 INHIBITOR AND Free Arachadonic Acid Metabolism Inhibitor!!!
- POWERFUL Anti-Oxidant
  - Proanthocyanidins, Phenolics, Flavonoids, carotenoids, Mg, Zn, copper
  - Quercitin & Catechin
  - Increases Endogenous Anti-oxidant Enzymes
- Lipid Lowering, Anti-Diabetic
- Reduces Risk and Symptoms of Osteoarthritis
- Non-ulcerogenic, does not inhibit platelets.
- Extremely Safe.
- Great land remedy plant and ground protector. Plant and enjoy!
- Teacher of the sacredness within and the care it takes to protect the vine, that one day there may be a safe place for a rose to bloom. Slowly building and storing the nutrients.

## Nettles – *Urtica dioica*

### **! M-I-N-E-R-A-L-S ! Make Absorption!**

- Vitamin A, C, E, F, K, P
- Vitamin B- complexes as well as thiamin, riboflavin, niacin, B-6 all of which are found in high levels.
- Zinc, Iron, Magnesium, Copper and Selenium
- Boron, Bromine, Calcium, Chlorine, Chlorophyll, Potassium, Phosphorus, Sodium, Iodine, Chromium, Silicon and Sulfur.
- 22% protein    4% fats    9-21% fiber
- Properties of dry nettles vs. Fresh nettles
- Anti-oxidant
- Alterative
- Mildly Adaptogenic mostly through remineralization.
- Builds positive self-image and confidence.

## Marshmallow – *Althea officinalis*

- Demulcent/Emollient
  - Soothing, cooling, hydrating, healing to mucous membranes
- Mucopolysaccharides & polysaccharides
  - Beneficial for GI flora
- Repairs stomach, intestinal structure and increases absorption of all foods in GI.
- Helps with IBS, diarrhea, and constipation.
- Repairs all bodily smooth muscle tissue. Gums, joints, lungs, eyes, lips, ribcage, etc. and all internal mucous will equalize and repair due to Reflex action of the body to product endogenous mucous.

## Milk Thistle – *Silybum marianum*

- Liver Protector and Detoxifier
- One of nature's most potent Anti-Oxidants, even up to 10x more potent than pure tocopherol (Vit. E.).
- A clean liver will help any body function more productively, and any botanical remedy work more effectively.
- Anti-carcinogenic to all organs. Gall bladder, liver, bladder, spleen, ovaries, uterus, pancreas, et. al..
- Lowers cholesterol in bile – Helps reduce risk and intensity of gallstones.
- Lowers general cholesterol, indicating it in prevention of heart failure.
- Highly lipo-philic so a cold-pressed oil or tincture are best liquid forms.

## Spirulina/Algae/SuperGreens

- Spirulina contains all 8 essential amino acids – a complete protein
- Did You Know?
  - Raw Meat contains ~27% protein
  - Spirulina contains ~65% complete protein!
- Vitamins A, B1, B2, B6, B12, E, and K
- In general, all Algae/Seaweeds are 20-50% by weight minerals!
  - Contain: potassium, sodium, calcium, magnesium, zinc, copper, chloride, sulfur, phosphorous, vanadium, cobalt, manganese, selenium, bromine, iodine, arsenic, iron, and fluorine

## Cinnamon – *Cinnamomum* spp.

- Use as bark or powder.
- Manganese, Fiber, Calcium
- Anti-Inflammatory
  - Arachadonic Acid Regulator
- Anti-Microbial, Anti-Fungal
  - Shown to have incredible activity, due to the cinnamic acid derivative aromatic compounds. Helping to kill harmful intestinal flora.
- Blood Sugar Balancing Effects
  - Maintain healthy blood sugar
  - Lowers triglyceride, LDL and total cholesterol
- Synergizes Flavors and Actions of other Ingredients
- Scent Increases Brain Function

## Honey

- Anti-microbial; hence, Preservative
- Vulnerary
- Humuctant
- No fat or cholesterol
- Anti-oxidant secondary chemicals from the pollen the bees use.
- B vitamins
- Folate, Betaine, Choline
- Calcium, Potassium, Flouride

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- Pour into bottles.

## **Conclusion**

- Syrups can be made of all things, for anything!
- Adults and children love syrups!
- Compliance means Results!
- We are Infinite Possibility!
- **Rx of the Day: Practice telepathy with a plant each day!**

