

Monarda Fistulosa

By:

Ashley Doyle

Monarda Fistulosa (MF) is a perennial plant in the Lamiaceae or Mint family. Common names are Wild Oregano, Wild Bergamot, Beebalm, Oswego Tea, Kétłoh, and Oregano de la Sierra. Other varieties exist, such as Mentifolia, Citriodora and Punctata. Mentifolia has one terminal whorl of flowers, while the other two have several whorls of flowers. Punctata variety is questionable if found in Arizona and usually has white flowers unlike the purplish pink seen in the prior mentioned varieties. I chose this herb, because it grows natively here in Flagstaff, is quite visually appealing, and is also notably of resource in the kitchen where I enjoy spending copious amounts of time.

Physical Description

Starting with some basic information, MF was named after Nicholas Bautista Monardes. He was a Spanish physician and botanist. There are seventeen species of MF in the genus. It grows natively all over the U.S., except in Alaska, California and Florida. To add to its territory, it is also seen in Southern Canada and Northern Mexico making MF a very widespread plant. In Az, it inhabits ten out of 15 counties embracing Coconino, Yavapai, Gila, Pima, Graham, Navajo, Apache, Greenlee, Cochise, and Santa Cruz county. Its elegant bloom occurs in Southern locales May-June and higher Northern ranges from July-September. Being in the Lamiaceae family, the plant endures a square single stem with opposite leaves. The leaves are deltoid-lanceolate to lanceolate and toothed slightly, light greenish gray color with gentle upward curls and have pinnate venation. Below the surface is an underground network of rhizomes. MF grows two to four feet high in full to partial light while enjoying well drained areas in soil, sand or clay. I have located MF in canyons with nice drainages. The herb can also be found in large woodlands, forests, prairies and thickets. The bloom as mentioned is usually a pinkish purple in most varieties displaying a single puff or whorl. The “fistulosa” is a reference to the hollow and tubular shape of the corolla or collection of petals.

Cultivation & Collection

MF is quite popular amongst herbalists, gardeners and chefs. Whether for medicine, natural beauty in the garden or food, it's wide distance of growth make conditions to cultivate quite accessible. To initiate healthy populations, a group of MF can be broken up by dividing the underground system of rhizomes and replanting in the spring or fall. They do well if planted around bushes or under trees. Single plants do poorly, making success greater to replant a small colony for optimal plant health. MF is less susceptible to mildew, but needs proper drainage and air circulation. Something of interest to me, is MF is a pollinator and nectar feeder to many insects including bees, butterflies, wasps, moths and feeds humming birds. All

of this is genuine to a happy garden and its pollinating species. As an additional note, mammalian pests to homes/gardens like deer and rabbit, will avoid MF due to its strong flavor.

Collection of MF can be done with ease in a garden or most preferably in the areas already named. In Coconino County here in Az, July is usually the best time to go wild crafting. The leaves and flower heads are what is desired and prized for usage medicinally or culinary. Flower heads should be picked just prior to the peak bloom and leaves are gathered before the decline of the season begins. The technique I use is to cut the most desirable stems a little above the base of the plant. Use the plant fresh or dry depending on the purpose. Fresh is best especially for the flower heads. To acquire the leaves, hold the top of the stem up after the flower is removed and run two fingers down the stem to allow the leaves of the entire stem be removed very simply. Drying the stems first is another way of collecting the leaves, if storage is in it's future. If stored properly, the scent of the leaves can last over one year. Cutting the stems after the morning dew has not evaporated is said to increase the potential of the essential oils in the plant.

Aroma, Taste & Energetics

MF has a strong aroma resembling thyme, oregano or mint. Our species in Coconino county and other Northern locations tend to have a more spicy and robust taste and odor than the Southern varietals. MF is best for Kapha constitutes. Energetically it is hot and very warming. I described it after tasting my tincture for the first time as sharp, spicy, warming and slightly moistening. I definitely can feel it in the back of my throat and nasal passage.

Major Components

Main elemental contributors in MF I found of importance to include were Thymol, Rosmaric Acid, Carvacrol, Limonene, and 1,8 cineole. MF has a large concentration of thymol. Thymol is a phenol used in many commercial mouthwashes for its antibacterial property. Carvacrol is another phenol that along with thymol is also antibacterial, antiviral, antifungal and contributes to respiratory health. Rosmaric acid is a reputable antioxidant, antibacterial, antiallergenic and anti-inflammatory. Limonene is a monoterpene that is also antibacterial, anti-inflammatory, antiseptic, a decongestant and an expectorant. The other element 1,8 cineole is an oxide that is antiviral and contributes to respiratory health.

Safety, Therapeutic Use & Doseage

MF is considered generally regarded as safe (GRAS) by the FDA. However, there is caution for pregnant women. This is due to the stimulation of uterine secretions. MF is mostly utilized medicinally for respiratory, cold/cough issues and oral care. Usage includes tincture, gargles, steam inhalation or topical washes. Tincture 30-60 drops a day as needed and for other applications one to four ounces three times a day. For tea three to four flowers or 1 TB crushed leaves. Since MF is diaphoretic, mostly from the flowers, that would assist in cold/cough care if fever is involved. The root can be chewed if available to assist with swollen neck glands. I have seen MF in oral care recipes due to all of its

properties brought up earlier. Bitters and teas with MF can promote stagnant digestion and relieve bloating/gas due to the spicy carminative contributing characteristic of MF. The antifungal component of MF makes for a topical use. Another use is for promoting delayed menses, as MF is identified as an emmenagogue. I am currently using it in my own bitter formula with ocotillo, bitter orange, mahonia and lemon balm. Results are in process. MF can also be used as a wound dressing and is noted to be second to California White Sage for this use.

Lastly many native tribes such as the Tewa, Navajo, Chippewa, Kiowa and other tribes have all utilized MF therapeutically for numerous other purposes including, but not limited to eye washes, ridding the body of worms, insect bites/stings, and although not therapeutic ceremonial and cooking applications. This information put an extra snap of appeal on MF for me.

Preparations & Pairs

Some points of collection and preparing were brought to light earlier. Fresh collection of flowers and leaves locally are July through early August and can be tinctured with a one to two ratio or marc to menstruum. Fresh flowers can be preserved in honey to make a delightful tea especially of use during a sore throat. Herbal pairs include osha, false Solomon's seal and balsam root. Oxymels are a combination of an herbal honey with an herbal vinegar. I made a MF oxymel that I am awaiting yet to use medicinally. I mentioned using MF in bitter formulas and have yet to acquire techniques for other special preparations

Traditionally many find this herb very useful in the kitchen from salsas, meats (notably sausage), breads/muffins, seasoning in general and the list goes on. The stems retain their flavor most, so next year I plan to hold on to them in the processing for use in soups or cooking beans. Vinegar made from the leaves is another way to impart the flavor for sauces and dressings or the oxymel.

Conclusion

I would like to mention a couple more pieces of information I obtained. First, an article from pubmed in China reported a conclusive study of MF variety Punctata and the use of its essential oil therapy. The four components thymol, p-cymene, limonene and carvacrol in the essential oil is a potent source that combats against respiratory tract infections and causes major morphological damage to drug resistant staphylococcus. Thus, making the use of MF v. Punctata essential oil a much better natural alternative to antibiotics and drug resistant strains of bacteria. Second, is to note that some research is being done with the same variety Punctata along with lavender oil to have a potential to possibly improve or assist prevention of cholesterolic plaque buildup. It will be interesting what the future brings to light with Monarda. In conclusion, Monarda will remain a tool in my herbal medicine cabinet and an ingredient in my kitchen.

List of References:

Medicinal Plants of the Mountain West, revised and expanded version 2003 by Michael Moore

Native Plants of Arizona, 2007 by Lauren Harter

Herb Society of America's Notable Native 2013-Wild Bergamot

USDA NRCS Plant online plant guide

Class notes from Foundations of Herbal Medicine 2019 with Mike Masek

Southwest Foraging by John Slattery

Beebalm, our Native Spice from herbalremediesadvice.org

Native American Ethnobotany Database search for *Monarda fistulosa*

Pubmed article on *Monarda punctata* from International Journal of Experimental Pathology

Published Nov. 1 2014