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News from the Farm
Biodynamic Orcharding in the Pacific Northwest
Heal Yourself, Heal Your Garden, Part 4

From the Editor

As *Applied Biodynamics* goes to press, the dog days of August are in full swing—and piercingly hot—a reminder to us that, following such heat, the northern hemisphere is heading toward fall. Certainly, in parts of the U.S., the land must be breathing a sigh of relief at the promise of coolness and rest. This year we have experienced unprecedented “heat domes.” Pacific Northwest farmers have faced temperatures sizzling enough to destroy ripe fruit before harvest. Fires in California have devastated communities, both human and other. Monsoons in the southern U.S., as well as life altering floods in Germany and China have brought climate issues to our collective front door. And beyond that, there is Covid, seemingly a never-ending story. Indeed, remembering the months just passed sends a compassionate shiver through any good heart.

What to do?

We can take sides. Many are. I remember Steiner writing that the 5th Post Atlantean Epoch would conclude with the War of All Against All. We seem a little ahead of his timetable (by about 1,000 years), but perhaps we are quick learners.

A more productive approach might be another Steiner

recommendation—that to heal the earth we first must heal ourselves. In a lecture about the lower hierarchies, he defines earth not as soil but as whatever settles out and down from higher elements, essentially what is material. Thus to heal the earth is to heal the earth that is in us—to look within to ferret out what is unhealthy and release it.

Despite Steiner’s complex ideas, you might say that the bottom line of his teachings is to figure how to live with gratitude and joy, appreciating the natural processes our thoughts and deeds are woven into. Part of that appreciation is evident in Emily Sepulveda’s “News From the Farm.” In Stewart Lundy’s and Abigail Porter’s articles exploring the benefits of yarrow, we are reminded that the Earth already knows how to heal and yet has generously offered us some of her healing tools in the form of plants. Marjory House takes us through the seasons in her orchard, illustrating how she follows Nature’s lead in caring for her trees. We also remember Vivian Struve-Hauk, who healed the earth while she walked on it.

Human hands and hearts have to do the work, both in the soil and in the soul, but Nature is and always will be the Master Teacher.

—Mary Maruca

Applied Biodynamics

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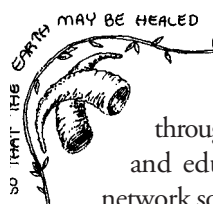
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Front cover: A bench under Marjory House’s apple tree offers rest and contemplation. Photo courtesy of Marjory House.

Mission



The mission of the Josephine Porter Institute for Applied Biodynamics, Inc. is to heal the Earth through Biodynamic preparations, research and education, and to build a dynamic network so our legacy is accessible to all future generations.

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News From the Farm: No Fences, Good Neighbors

Emily Sepulveda

It's about twenty minutes from Floyd's (VA) one stoplight to the turn onto Thompson Road SE, where the blacktop turns to gravel. Pitted and narrow, the first mile of this road is best taken at 10 mph; the tall thickets on either side make it feel like driving through a forest tunnel, and the slight curves in the road give short notice of another vehicle coming in the opposite direction. Rabbits and squirrels, goldfinches and bluebirds, dart and flutter at the sound of an engine, and dust clouds the view through the rear mirror.

JPI staff take this road every day on the way into work, through that first canopied mile to where the trees give way to pasture and the Little River winds its way through a fertile valley. The JPI barn can be seen down the slope and over the bridge, surrounded by clover and framed by neat rows of crops on either side. Another narrow road snakes back behind the barn, disappearing like a mystery into a stand of white pines.

This valley was once the Thompson farm, where the

namesake family raised cattle for decades. Reminders of that operation are scattered throughout. On the north side of JPI's barn is a huge concrete wall that once sheltered silage. In recent years these hundreds of acres have been divided and sold; new farmers have made their way here to cultivate food and raise livestock.

It's a common story in rural areas, where newcomers flow in and oldtimers shake their heads. The axiom, "good fences make good neighbors," is oft repeated. But looking down at this valley JPI calls home, it's clear that the river doesn't see property lines, that the soil has no regard for real estate transactions, and that the bluebirds will nest wherever they please—Mother Nature doesn't honor fences and to be a good neighbor takes more than t-posts and wire.

As JPI carries out the cyclical work of making biodynamic preparations, we are blessed with neighbors that care little for artificial barriers. To our north, Spikenard Farm Honeybee



Sanctuary supports bees and other pollinators with biodynamic practices and endlessly blooming pollinator gardens. Downriver, to the south, is Riverstone, an NOP (National Organic Program) certified organic farm growing the full rainbow of vegetables. JPI sits in the middle and, every day, is honored by the care our neighbors show the earth and ecosystem, and by extension, our preparations.

“The preparations radiate energy - cosmic energy,” says JPI Preparation Maker Larry Mabe, “and we have neighbors doing energetically good things. They’re not using poisons—there’s really good harmony around the farm.”

That harmony is reflected in Riverstone owner Alex Hessler’s own perspective. “We feel really lucky that we get to be farming in a valley shared by other people with a common vision for stewarding the land and educating people about sustainability,” he says, reflecting on the challenges of growing organic food in a system still dominated by industrial agriculture. “Nationally we’re in the minority—it’s encouraging and motivating to be surrounded by people on the same path.”

Spikenard Executive Director Alex Tuchman sees the synergy between neighbors as a reflection of the models found in nature. “Lines of energy and activity are stunted when we put up a fence line,” he explains. “We want to allow the farms here to be organs of a larger organism, and to rise to the challenge of taking care of our acreage but also acknowledge that the more borders and fence lines can become permeable and able to breath with the cycles of nature, the more organisms will flow between the spaces and bring gifts from one place to another.”

Those gifts are abundant. The pollinators Spikenard cares for buzz through JPI and Riverstone; Riverstone’s farm store provides JPI staff meals throughout the summer. Over a dozen acres of Riverstone’s vegetables are grown on land the state of Virginia would consider JPI’s; driving along Thompson Road SE, it’s clear that land belongs to the valley, to the bees and the worms, and the river and the bluebirds—not any man-made entity.

On an early summer afternoon, a Riverstone farmer knocks on JPI’s door—their tractor is up in the top field; can they borrow ours for a few minutes? The phone rings, and it’s Spikenard’s farm manager saying they have some beautiful Valerian blossoms, so would Larry like to come harvest them for BD 507? Yes, he’ll be up there as soon as he gathers some manure from the happy cows grazing Riverstone’s pasture.

And just across that permeable property line, Spikenard interns are seeding long rows of chamomile for JPI to harvest later in the season. That chamomile will be made into a biodynamic preparation, one that will be sent all over the country to like-minded farmers and gardeners as they work to heal and steward their own little patch of earth.

Afternoons like these are what make good neighbors, not fences. The sharing of resources and the collective goals of healing, sustainability, and stewardship bond JPI, Riverstone, and Spikenard: three organizations with individual missions but united values. As Alex Hessler says, “the three entities here all have unique focuses and are operated by people with unique strengths, skill sets, and knowledge. It’s great to be able to call on that collective knowledge, skills, and resources when presented with a challenge.”

Larry Mabe describes it simply. “The likemindedness of our neighbors, the fact that they care about our environment; it’s good energy,” he says. “It’s all connected—we’re all connected.”

Time to Order

Order your fall preparations at [jpibiodynamics.org/collections/biodynamic-preparations](https://www.jpibiodynamics.org/collections/biodynamic-preparations)

- Fall Biodynamic Preparations—500, Compost Preps or Starter, BC.
- Valerian (BD 507) for early frost protection.
- Hugo Erbe’s #9 Harmonizing Preparation—(companion to The Three Kings to be sprayed out at Michaelmas or Thanksgiving in gratitude for the harvest and the Elementals).
- Hugo Erbe’s #8 Three Kings Preparation—Gold, Frankincense and Myrrh to be prepared New Year’s Eve and sprayed out on Epiphany, January 6 as an offering to the Elementals. Save shipping costs and order with your other fall preparations.
- BD 508 Horsetail Herb (*Equisetum arvense*) To discourage fungal disease. One unit of dried herb makes 2 gallons of fresh tea, enough to treat one acre, or 10 gallons of fermented tea.

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Biodynamic Orcharding in the Pacific Northwest

Marjory House

The farm I call home is located in the Willamette Valley in western Oregon. Winters are wet and sometimes cold. Though rare in the past, snow and ice have become more frequent winter companions. Summers are hot and dry, sometimes with long stretches of drought. The average rainfall is 40 inches around Portland, and up to 80 inches in the coastal hills. Our orchard is located in the middle of hundreds of acres of both managed and unmanaged Douglas fir forests. Before we arrived, the farm had experienced 25 years of what I call conventional organic methods—growing popular apple varieties not suited to this climate, which means adding organic NPK (nitrogen-phosphorus-potassium), and spraying OMRI certified sprays for pests and disease that may or may not be present, on a schedule that does not care what Mother Nature does.

My family and I converted our orchard to biodynamic management during the first four years we lived here. We slowly weaned the trees off of all chemicals, including sulfur, copper, and dormant oils. We decided we did not need to produce a perfect apple once we started growing apples mostly for cider. Now in our third season of using only biodynamic inputs, our apples are better than ever.

I would never recommend going cold-turkey when transitioning from chemical inputs. However, if you choose to use organic sulfur, it is best not to use the BD silica sprays within two weeks of the sulfur application since they cancel each other out chemically. Sulfur often masks the problem that silica and calcium prevent. Also, you should not use the silica sprays in the same sprayer that you use to apply the sulphur.

What are Our Seasonal Tasks?

Winter

Winter is our busiest season. We prune our own 450 trees, as well as more than 400 trees located off the farm. Our trees are predominantly dwarf varieties, with a sprinkling of older standard and semi-dwarf trees scattered across the orchard. We have planted many rare cider varieties, a gift from the widow of the late Nick Botner, who passed away last year. His passion for fruit trees motivated him to collect more than 5,000 varieties of apples from all over the world. We are honored and blessed to provide a home to some of his apples.

Most of the trees outside our farm are either semi-dwarf or large standard trees. Over the years I have specialized in restoring old apple trees and whole orchards, continuing to maintain them afterwards. We do all the work on our



Marjory pruning apple tree; all photos courtesy of the author

own farm, with volunteers helping during picking time. The last few years, I also have hired helpers for off-farm cleanup. In addition, I have taught many, including my husband, to prune.

My style of pruning takes into consideration aesthetics, production, and health, though, in winter, my pruning style is rather intense. I remove up to two-thirds or more of new growth. I keep my tools very sharp and clean them with rubbing alcohol, so as not to spread disease if there is any.

Besides pruning in winter, we spray fermented equisetum tea (BD 508) as much as possible, particularly before a heavy rainfall, although a thick tree paste application last spring meant we only needed two equisetum sprays this season. [Note: visit jpibiodynamics.org and look under preparation instructions to learn how to make fermented equisetum.]

Equisetum is high in silica, calcium, and small amounts of nicotine, as well as other phytonutrients. This mixture is sprayed predominantly on the ground, though I also spray it on the lower trunk and limbs when the trees are dormant. This is not used as a drench, as in the case of sulfur or bordeaux

mix. Rather, it functions like a homeopathic spray, so a little goes a long way.

If you use a hand pump sprayer or a tractor sprayer you should use a very fine strainer before putting the mixture in the tank, as clogs can be frustrating. Also, open all the sprayer nozzles to their largest setting. Equisetum should spray out in larger drops as opposed to a fine mist. Spraying on the ground holds the undesired fungus down in the soil and dominates the bad fungus that would otherwise splash up. Silica adds light. The calcium and beneficial fungus balance moisture, while helping to regulate the undesired fungus. In the human body, equisetum is used as a diuretic for kidney disease, so it has similar diuretic effect on the soil.

Unlike some dormant sprays, equisetum is not sprayed on a schedule. Rather, we pay attention to the weather and spray just before a heavy rain, working with, rather than against nature. We try to offer one or two sprays during winter months, more if it is a particularly wet season.

How I Stir

I have experimented with looking at different beneficial fungus and bacteria counts to determine the best way to stir.

When I worked for a compost tea business called Sustainable Agricultural Technologies, I had access to the soil lab and could examine sprays and teas under a microscope. The company used both Elaine Ingham and Carey Reams soil testing and methods.

People often ask about the difference between hand or machine stirring. I found that the longer hand-stirred sprays had higher beneficial fungus counts, while machine-stirred sprays had higher beneficial bacteria counts. The beneficial fungus appeared to have been chopped up by the machine. After noticing this, I try to hand stir the majority of the 508 sprays because the beneficial fungus needs to dominate this particular spray.

Spring

In spring before the leaves emerge is the best time for us to apply tree paste. Tree paste has the ability to heal large wounds such as broken limbs. It also renews the vitality of a tree. It proves itself to be a miracle treatment, and not just for apples. I have used it on Japanese maples and English yew with amazing results.

We also use equisetum spray in spring. This spray after

Marjory's Tree Paste (Smaller batch amounts in right column)

- 3 gallons fresh equisetum, when available [if dried, reduce amount to 1 lb].*
- 3 gallons fresh nettle if available or reduce to 1 lb.*
- 50 lb bentonite clay.
- 5 gallons fresh cow manure preferably from a lactating cow (1 gallon).
- 4 gallons fermented equisetum tea (508).
- Add rain water to the mix until you get to your preferred consistency. This covers approximately 75 to 100 trees, while the smaller amount covers 10.
- Mix bentonite, nettles, equisetum, and manure with some rain water (enough to moisten) for an hour with a shovel. Mix for an hour on a concrete floor if you are making a larger batch. Transfer to a large wheelbarrow and then add the fermented equisetum tea and rainwater. Mix by hand.
- For a thicker paste, use less rainwater. Use a thicker paste for wounds and trees riddled with sapsucker (woodpecker) holes. Sapsuckers eat out the cambium and disrupt sap flow. The paste fills the holes and deters the birds for several years after an initial thick application.
- Tree paste can be used in a sprayer but, if not diluted and filtered through a very fine strainer (55 micron bucket strainer), cleaning will be frustrating.
- Silica sprays 501 and 508 should not be used in the same sprayers used for sulfur.
- Apply paste with bare hands or, if the consistency of pancake mix, apply with a large wide paint brush.
- Use within a week or you will have to re-wet and stir well for oxygenation.
- *Marjory adds fresh equisetum and nettle for their nutritional and medicinal benefits.

- 1 oz
- 1 oz
- 10 lbs
- ½ to 1 gallon)



Making tree paste with manure, bentonite, fresh nettle and horsetail

bud break is the most important, when the spores from both scab and anthracnose are most rampant. Anthracnose spores become the most active when temperatures rise above 55 degrees for more than seven days. Then when rains come, the spores release. This spray is scheduled about the same time as codling moth traps are hung. We spray 508 on the ground after bud break to keep spores down, never on the flowers or trees at that point.

Another spring pest we contend with is the shot hole borer. The borer predominates in orchards near fir forests here. Shot hole borers can riddle a tree with enough tiny holes in the cambium to quickly kill the entire tree. We control them by putting out vodka traps in April to capture them as soon as they emerge. Hugh Courtney told me I could strain them out of the vodka, which preserves them, and make a biodynamic ash. I have yet to try it.

To aid pollination, we have honey bees brought in before bloom. We cross our fingers most years that the weather cooperates and that it is warm enough for the bees to come out of the hive to pollinate the flowers. We get more than twice the production with honey bee pollination than if we don't have the bees. The first year we brought in honeybees, the yield was almost 30,000 pounds from two acres of more than 450 dwarf trees.

The former owner and farmer who planted the trees said that only once in his 25 years here did he even get close to that level of production! Early spring in the orchard also includes a lot of dandelion picking for making BD 506.

Summer

Summer activities involve mowing, weed whacking, and irrigation. Dwarf trees have shallow roots and, thus, need regular irrigation during the growing season. With climate change, I suggest you consider semi-dwarf trees, then keep

them pruned smaller for better management. They have a deeper root mass and, once established, will need little to no irrigation.

We irrigate the orchard from a stream-fed pond. This year we converted the upper half of the orchard away from overhead sprinklers (which may have been encouraging scab and anthracnose) to drip irrigation. We converted the lower half several years before. Summer irrigation plumps up apples.

One thing we don't do is thin the apples, as the smaller apples seem to have better flavor for cider making. Possibly a spray of 501 at thinning time would help with the process of thinning. I have not tried it yet since apples tend to thin themselves early in June.

We have planted (or encouraged wild versions of) white clover, orchard mix, dandelion, plantain, sweet woodruff, creeping jenny, heal-all, and mint as ground covers in the orchard. We also have begun to interplant marionberries, tayberries, and elderberries in gaps in the orchard for diversity.

Though some orchardists in the valley summer prune, I do not. Occasionally I pull suckers from the main trunk in early June to increase calcium in the fruit later. But I don't prune during the summer for several reasons. First, the suckers provide just enough shade to prevent sunscald. Second, they also provide the tree with stores of energy for winter. In addition, anthracnose spreads more readily into open wounds in spring and summer, killing whole branches.

Fall

In fall, everything we do is about bringing in the harvest! Two weeks to a month before we think apples will need harvesting, we spray 501 (horn silica) for sweetening and ripening. Within days, the color and flavor improve dramatically.

After harvesting, we then make sure every single apple has been picked. Even if we aren't going to use those apples, we get them out of the trees and rake any rotten or fallen apples into the aisles. This ensures that the bears don't climb the trees and break limbs. Then the bears come through the aisles and clean up every single apple for us!

We also put agricultural lime under the trees after most leaves have fallen. Liming the leaves helps kill any spores from scab and anthracnose, and adds calcium, which helps regulate pH and nutrient uptake. We use agricultural lime instead of dolomite lime. The dolomitic form builds up too much magnesium after successive applications over time, which then causes our clay soil to shrink and not hold water well.

Lime is an important ingredient in western Oregon where rainfall is heavy and washes out most calcium, except in areas where composted manure has been amply added.



Yarrow prep in apple tree

Well-composted manure with the preparations added usually provides enough calcium and/or this is regulated by the microbes, meaning we never have to chase pH. After the lime application, if we have enough compost, we add it then. Otherwise, we spray a mix of barrel compost, 500 (horn manure), and 508.

Moon Rhythms

As for following moon rhythms, we try to pick apples at fruit or flower times for better storage, spray equisetum around the full moon for better reflection, and plant new trees in favorable Jupiter positions. I graft when the moon is fully descended and just about to ascend, which takes a considerable amount of planning. I take scion cuttings when the moon is ascended.

Pruning is best done when the moon is descending, but because we prune so many trees in a small amount of time, it is not always practical. Then, 508, barrel compost, and 500 sprays are applied in the evening, while 501 is always applied at the crack of dawn. I have made the mistake of spraying out what was left in a tank after the sun was up, and it burned the trees. We avoid black out days altogether.

What Else?

Successful orcharding has a lot to do with the tree varieties you choose both for root stock and apple scion. When we first moved here, the farm had only six varieties, all popular dessert apples: *Ginger Gold* (susceptible to scabbing and anthracnose); *Honeycrisp* (equally susceptible to all diseases); *Akane* (more scab resistant but very susceptible to anthracnose); *Jonagold* (susceptible to scab and anthracnose, a biennial producer no matter how you prune); *Golden Delicious* (we have one standard tree, which produces very delicious, disease-free apples and would likely not do as well

on dwarf rootstock); and *Liberty* (our best disease-resistant apple, only slightly susceptible to anthracnose). Personally, other than Liberty, I would not have chosen any of these for our location and climate. We are slowly cutting down these trees and top grafting with more disease-resistant varieties for cider making.

In addition to our orchard activities, we grow salad greens for several local restaurants, along with ample seeds for ourselves and seed swaps. We also grow much of our own food for fresh eating and preserving. We sell only occasionally at our local farmers market. The dream is to have a cider production facility in the future.

I'm sure there are many ways to orchard biodynamically, but this has been the approach I've settled on after more than 20 years of learning, experimenting, and finding success. Of course, there is always room for more improvement, no matter how you farm or garden. Working with the earth as a farmer or gardener offers a lifetime of learning!

Marjory House has managed small orchards since 1999. She continues to manage several of these orchards, as well as her own Singing Creek Farm, which she manages with her husband. She also is an active member of the Oregon Biodynamic Group, serving as its 2021 board president. She holds the preparation makers seat on the Demeter board and is active with the Fellowship of Preparation Makers. Marjory offers consulting for orchards, as well as for biodynamic conversion. In addition, she belongs to Agrarian Sharing Network, which collects scion from many orchards, then distributes them for free or grafts them for a small fee onto rootstock at spring events that include seed swaps and propagation sharing. Marjory can be reached at gobiodynamic@yahoo.com. Her facebook alias is Pearl Mason.



Autumn colors at the farm

Heal Yourself, Heal Your Garden (Part 4): Yarrow

Abigail Porter

*“In no other plant do the Nature-spirits obtain such perfection in the use of sulphur as they do in yarrow.”**

Like the other powerful plants that Rudolf Steiner chose for the compost preparations, wild or common Yarrow (*Achillea millefolium*) growing in your garden or on your farm “...works beneficially by its mere presence,”* giving and attracting what is needed for the soil and surrounding vegetation. The roots and leaves fertilize the soil, and the strong aromatic scent of the flowers and leaves disperses itself into the environment. Not only does yarrow shed its molecules and atoms, it also radiates its energy—its vibratory frequency—sharing it with the rest of nature, as well as us when we pass by.

Yarrow is a hardy perennial belonging to the Asteraceae or composite plant family that propagates by rhizomes and seeds. It likes full sun and thrives in hot, humid, and droughty conditions. It will grow on poor, well-drained soil and will not tolerate soil that is constantly moist. It is frequently found in abandoned, depleted fields and hill-sides. Perhaps yarrow has come to remediate the soil? Some

consider this plant to be aggressive or invasive, but Timothy L. Scott in his book, *Invasive Plant Medicine*, reminds us that such plants come where they are needed to remedy disturbances caused by humans.

By observing yarrow, we see that it is both delicate and strong. The delicate, fern-like, “thousand leaf” (*millefolium*) leaves are arranged in a very structured, progressive, subdividing pattern on one plane unlike the feathery, fern-like leaves of chamomile, which seem airy and random, going in all different directions (even though both plants share some medicinal uses). While the leaves of yarrow are tender and easily pulled apart, the stalk is so strong it cannot be broken, no matter how hard you pull. The stalk rises two to four feet, with side shoots along the way, to form an umbel of many potently scented white florets. The overall feeling and form of the plant is order, structure, strength, yet with a gentleness expressed by the leaves. Sometimes called “a thousand leaves, a thousand cures,” yarrow is one of the most powerful medicinal plants in North America. How do those qualities help us heal?

Medicinal Uses

The leaves and, more often, the blossoms are harvested late spring into summer to make tinctures, tea, oil, and salve. Used both internally and externally, yarrow is a digestive and antioxidant. It is astringent, antifungal, antibacterial, and anti-inflammatory, and can increase circulation. The aerial parts of yarrow plants contain Vitamins A and C, potassium, zinc, magnesium, calcium, phosphorus, silica, and niacin. A tea from the blossoms is a wonderful wintertime remedy for colds, flu, fevers, and lung and sinus congestion.

Yarrow is used to stop both internal and external bleeding. One of its old English names is *nosebleed*. A powder can be made from the dried leaves and blossoms to quickly stop bleeding from wounds and to speed healing. It is not recommended to use yarrow on deep puncture wounds though, since it will heal the outside of the wound too quickly. You want the healing to occur on the inside first to prevent tetanus and/or sepsis.

A poultice of fresh mashed yarrow leaves will speed the healing of bruises, sprains, swelling, and hemorrhoids. The salicylic acid content offers quick pain relief, also helpful for dental and gum inflammation and pain, which is relieved by chewing on the fresh leaves or root. Teas and compresses have been used for skin disorders, boils, and pimples. Some Native Americans used ground yarrow infused in



Yarrow plant blossoming in the author's garden. Note the delicate leaves

water as a wash to treat sunburns. Rinsing hair with the tea improves hair and scalp health, and is said to avert hair loss.

Yarrow also helps the kidneys, intestines, and liver. It gives support to the healing protocols used for tumors and cancer, and helps with menstruation problems. A strong yarrow infusion used as a compress helps detoxify the liver, thus aiding in overall health (for directions see *Healing Plants*, p. 39). In experiments, yarrow proved as effective as calcium antagonist drugs in lowering high blood pressure. Likewise, the plant may offer protection from x-rays and electromagnetic radiation.

Like chamomile, yarrow has a calming effect on the nervous and digestive system. It helps reduce anxiety and stress, and promotes relaxation and restful sleep.

Overall, yarrow seems to help bring the body, mind, and spirit back to equilibrium from unhealthy extremes.

“Yarrow (...) brings sulphur into play, fixing other minerals into soluble forms, and correcting weakness of the astral body.”

—Rudolf Steiner

In the Garden

Yarrow growing in the garden will repel pest insects from neighboring plants while at the same time attracting beneficial insects like butterflies, ladybugs, hoverflies, and predatory wasps to its blossoms. Its leaves fertilize the soil and speed decomposition in the compost pile. The root secretions strengthen and protect adjacent plants, and the matting roots prevent erosion. They are wonderful companion plants.

The essential oils, sulphur, and potassium in yarrow prevent and treat fungal diseases. A spray of blossom tea is helpful to reduce powdery mildew when plants are stressed. A more potent fermented extract can be made from the leaves and blossoms by putting 200 grams (7 ounces) of fresh leaves or 20 grams (1 ounce) of dried into a non-reactive container with one liter of water. Cover with a loose lid and place in the sunlight. Stir every couple days. After two weeks (or when it stops producing foam), the fermented extract is ready. Strain/filter and dilute in 9 liters of water. Spray the soil and young plants every 15 to 20 days. This helps plants grow stronger and reduces chance of *Rhizoctonia solani* infection (potatoes and tomatoes), powdery mildew, and brown rot. To treat infected plants, spray three days in a row and repeat every two weeks for a total of three times. If it rains, repeat application.

In her Wise Woman herbal series, herbalist Susun Weed says that the United States Army studied yarrow, finding that a tincture of the whole plant outperforms DEET in repelling ticks and mosquitoes, though it has to be applied more frequently.

For more uses of yarrow to improve health in the garden refer



Bee on yarrow. Photo by Clay Wesson

to Maria Thun's books *The Biodynamic Year* and *Gardening for Life*. See also *Biodynamic Gardening* by Monty Waldin.

Steiner stresses yarrow's importance in the garden—"In a word, like sympathetic people in human society, who have a favorable influence by their mere presence and not by anything they say, so yarrow, in a district where it is plentiful, works beneficially by its mere presence." *

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Yarrow: A Plant for Wounded People and Wounded Earth

Stewart Lundy

As legend has it, warriors of old headed into battle, carrying bundles of Yarrow. In the case of serious wounds, these blossoms would be crushed and pressed against the injured flesh to staunch the bleeding. Its name, *Achillea*, is after the demigod warrior, Achilles, who was virtually immune to damage since his mother dipped him in the river Styx; its second name, *millefolium*, is for its thousand-flowered umbels, which rise proudly against all hostile conditions.

Stephen Harrod Buhner writes:

*Yarrow (Achillea millefolium) is a pervasive plant throughout the Northern Hemisphere. Historically, nearly everywhere yarrow grows, it has been used as a hemostatic herb: to stop bleeding, especially bleeding caused by wounds. A great many of its traditional names indicate this property: The ancient Roman name herba militaris (soldier's grass) and the North American Teton Dakota tribal designation tao-pi pezuàta (medicine for the wounded) being two. The Latin name itself, Achillea millefolium, means "the thousand-leaved plant of Achilles" who used it to heal men hurt in battle. Even its common name, yarrow, is old English for "spear well" to make well from spears.*¹

What makes yarrow special? In one sense, it is a splendid bitter herb, traditionally used as a hops substitute for brewing beer: "Many other bitter plants besides hops have been used as admixtures in fermented malt beverages, including ground ivy, wild rosemary, wormwood, yarrow, and henbane."²

Yarrow, like those rare magnanimous souls distributed throughout society, benefits the surrounding region merely by its presence. This is a plant that thrives in extreme conditions and almost always seems able to regrow, rising each time like a phoenix from the ashes. Once I left a flat of yarrow unwatered in a greenhouse for more than a year. The plants all looked dead. So during spring cleaning, I tossed them out, only to find that they woke to life with the first rains.

Yarrow's more significant uses center around the blood, however. Matthew Wood writes,

Yarrow is one of the primal remedies of the Western herbal tradition. It can be called the "master of the blood." Through numerous devices—clotting, unclotting, neurovascular control, flavonoids, etc.—it regulates the flow of blood to and from the surface, in and out of the capillaries and venules, thickening and thinning. Through this it cures all manner of wounds, bruises, hemorrhaging, and clotting. The same property, combined with its diaphoretic capacity, makes it a "master of fever," moving blood to or from the surface to release or preserve heat and regulate fluids. Although

*pungent, bitter, and astringent in taste, it also contains high levels of flavonoids, which sooth the capillaries so the blood passes quicker. Thus, it is both cooling and warming, fluid generating and controlling. Remedies with contradictory but complementary properties are often of great utility since they are able to normalize opposing conditions. This is true for yarrow.*³

If Nettle is the great blood builder, Yarrow is the great circulator. The two together, quite naturally, are a splendid combination. From the beginning of COVID-19, I could see that this was a blood and circulation issue, and recommended preemptive use of nettles and yarrow. Imagine if our *food* were already infused with the powers of these medicinal herbs! We tend to harvest aromatic herbs for ourselves, but how often do people consider placing these precious herbs into the compost pile? Each region has specific ailments associated with its climate, and specific herbs to counteract those stresses; if all gardeners did was conscientiously add these herbs to the compost pile, the entire garden and the people eating from that garden would be benefited. If a mild tea has concrete therapeutic effects on the human organism, the ratio of preparations to a compost pile—even one as big as a house—is no more dilute.

Why do we add yarrow or any of the biodynamic herbs to compost? It may seem simplistic, but behind the different explanations of how the preparations work, we add the biodynamic herbs because we want our plants to behave more like these herbs. Every year that we extract from the soil and pile weeds for compost, one element that rarely finds its way by accident into compost is that aromatic flowering aspect. Even when we witness a plant growing in the field, it is a kind of *exhalation* of ethericity. When we see flowers and smell their aroma, these scents are powerful forces begging us to collect, stabilize, and then radiate them through our compost piles. Alchemically, the floral parts of any plant belong to the Sulfur polarity. Even when we draw primarily on animal manures to build compost, the power of alchemical Sulfur does not make itself present in great concentration without the deliberate addition of these aromatic herbs: "The effect of this material derived from yarrow is so enlivening and refreshing that simply by using this treated manure in the ordinary way, a lot will be done to counteract the unavoidable exploitation of the land that comes about through raising crops."⁴

Alchemically, Yarrow is almost a living example of the harmony of Sulfur and Salt, of the aromatic expansive

process and the contractive condensing process. But the alchemical view of the world can seem inaccessible, so we must be able to speak in plain modern scientific terms for the sake of the outside world. The mineral constituents of yarrow has a special relationship with potassium salts. Wilhelm Pelican writes in *Healing Plants*, “The ash of yarrow contains a considerable amount of silica and an extraordinary amount of potassium, 48%. This is clearly evident in the firm, solid stem structure.” Notably, the solid stem structure of yarrow is relied upon for the creation of I Ching sticks. Pelican continues:

An intense salt process is taken into life, moving upwards from below. At the same time the gentle aromatizing process is woven into it, starting right from the lowest part of stem and leaf. The two processes are most marvelously held in balance. The plant also has a characteristic sulfur process which is harmoniously and firmly incorporated in its protein; freshly pressed juices of the plant keep for a remarkably long time without decomposing. In the protein sphere, potassium salt and sulfur processes, flowering and root tendencies, meet harmoniously, and Rudolf Steiner has called Achillea a true marvel in the plant world.⁵

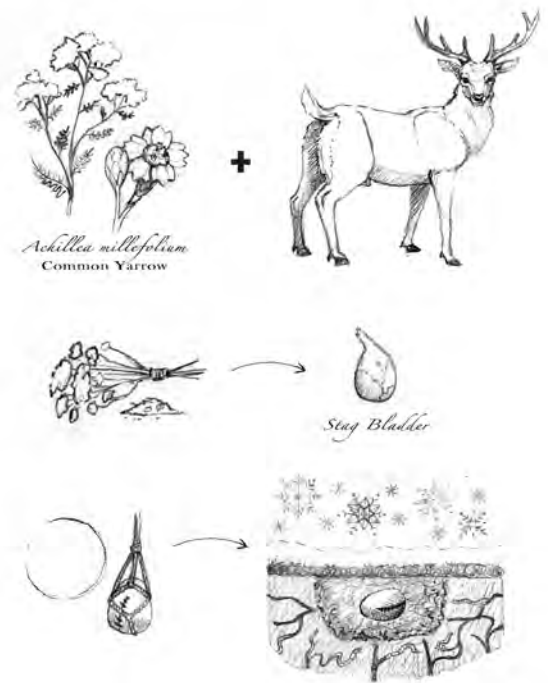
The alchemical eye sees an aromatic Sulfur process harmonized with the alchemical Salt process. In that sense, the yarrow plant embodies the mediating third process: alchemical Mercury.⁶

Anyone unable to procure sheaths for the preparations may consider using Maye Bruce’s recipe as an intermediary step. Bruce found that, using powdered stinging nettles, powdered yarrow, milk sugar (lactose) and honey, she could get *nearly* as good results as with the full set of biodynamic compost herbs. Mix these together, let them ferment for 48 hours, and you have your own compost starter.

In economics, the “Pareto principle” states that 80 percent of effects come from 20 percent of one’s activities. In a workplace, a small amount of your time and labor likely creates most of the value. By contrast, in a flock of sheep, 80 percent of the parasite load is approximately carried by merely 20 percent of the sheep; by focusing on culling the carriers, you quickly create a parasite-resistant flock of sheep.

Maye Bruce found that most of the benefits of the biodynamic preparations come from only two of the compost preparation herbs in this case, Nettle and Yarrow.⁷ To clarify this point: this is NOT meant to be a substitute for using the fully developed set of biodynamic compost preparations, but, rather, recognition that yarrow and nettles are two of the most remarkable contributors in that special set of herbs. Whenever someone asks how to start with biodynamics, the answer for me always starts with what you have. We must always strive

♂ Mercury, 502.



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for the ideal, but if we don’t have everything right now, we should use whatever we do have on hand now—and order the rest from an appropriate supplier. Do the best you can right now, and strive to exceed yourself each time.

When handling, ingesting, or even just interacting with yarrow, Christopher Hedley offers this invocation which some readers may find useful:

I call upon the Archangel Michael. I see him emerging from the mists, wearing his robes of blue and carrying his sword of truth (take a moment here to focus on this image). I see him emerge from the mists: he comes forward, merges with me... (feel it) and together we sever all cords of negativity (imagine the merged selves swinging that big sword in all directions, sides, above, behind, below) from anyone, anywhere, any time on any plane. I ask that these cords be returned to the sender in a ball of pure white (Christ) light so that love, joy and truth are all that exist between the universe and ourselves now.⁸

What better way to imagine yarrow, as surpassing antipathy through universal sympathy, which Steiner associates with this small herb?

An herb with such powers must be *translated* from the delicate logic of the etheric realm into the more animated astral organization of animals and humans. Something is

always lost in translation, but yarrow remains a tremendous herb. How much more potent must it be when used to treat fellow plants? This inner logic applies to the compost pile. What is at work in yarrow merely has to be liberated from its original parent material so it can radiate through a compost pile. Compost itself remains in a twilit vegetative state—maintaining its contours, streaming with etheric currents and aeriform astrality, yet always in an embryonic state. It develops something of a mineralized bark, tends toward a leafy state, and even perhaps generates something of a passing mammalian warmth, but the compost pile is never quite able to proliferate either by expansive growth or by reproduction.

But as long as the pile is intact, the compost demonstrates a kind of primitive plantlike activity. Every plant is miraculous, but yarrow is a marvel that blesses whatever space it inhabits. We add yarrow to impart these powers to our compost so that what is lost may be restored. We add yarrow so that the earth may be healed.

Notes

- 1) Stephen Harrod Buhner, *The Lost Language of Plants*, p. 54.
- 2) Dale Pendell, *Pharmakopoeia*, p. 66.
- 3) Matthew Wood, <https://www.matthewwoodherbs.com/Yarrow.html>.
- 4) Rudolf Steiner, *Agriculture* (Creeger trans).
- 5) Wilhelm Pelican, *Healing Plants*, p. 293.
- 6) Steiner indicates at several points that Mercury is an “occult Venus” and Venus is an “occult Mercury”—so this is not intended to subvert anyone’s planetary associations with this preparation. https://wn.rsarchive.org/RelArtic/BobbetteRSW/steiner2_006.html.
- 7) Two herbs out of nine total is 22.22%, which fits the Pareto principle very nearly. Maye Bruce’s *Common-Sense Composting* explains more of her approach.
- 8) Marghi Flint, *The Practicing Herbalist*, p. 41.

Stewart Lundy is co-owner, with Natalie McGill, of Perennial Roots Farm, where they grow heirloom food and medicinal herbs, and make value-added products for their CSA and farmers markets. They make biodynamic preparations on their 50-acre farm and orchard, and incorporate permaculture agriculture with biodynamic practices. Stewart gives workshops, consults, and researches esoteric subjects.

Fellowship of Preparation Makers Conference 2022

The conference is tentatively scheduled for February in Ithaca, NY. Details will be available in November.



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Biodynamic Preparations Legend

BD 500—Horn Manure

BD 501—Horn Silica

COMPOST PREPARATIONS

BD 502—Yarrow (*Achillea millefolium*)

BD 503—German Chamomile (*Matricaria chamomilla*)

BD 504—Stinging Nettle (*Urtica dioica*)

BD 505—Oak Bark (*Quercus alba*)

BD 506—Dandelion (*Taraxacum officinale*)

BD 507—Valerian (*Valeriana officinalis*)

BD 508—Horsetail (*Equisetum arvense*)

In Memoriam: Vivian Struve-Hauk

Alex Tuchman, Spikenard Honeybee Sanctuary executive director, wrote the following touching tribute to Vivian Struve-Hauk. We reprint it here with gratitude.

Dear Friends and Community,

I share the solemn news that the co-founder of Spikenard, our dear friend, Vivian Struve-Hauk, crossed the threshold Friday, July 9th. Everywhere you look at the Honeybee Sanctuary, you can witness the magical touch that Vivian brought to the bees, the landscape, and buildings, and the devoted skill with which she created the rock-solid administrative body for our organization.

Truly, Spikenard Farm was only able to come into being because of Vivian's capacity to bring Günther's vision of the honeybee sanctuary into manifest reality. Her incredible talents and gifts in service of the honeybees were given generously and selflessly, and everything she did was consciously done with the utmost care for both beauty and functionality.

It is with sincere gratitude and overflowing love that we invite you to join us in honoring Vivian's life and legacy by



Vivian Struve-Hauk, with husband Günther. Photo courtesy of Alex Tuchman.

lighting a beeswax candle for her and offering a prayer for her onward journey through the spiritual world.

Ongoing Activities

Biodynamic Association Courses and Webinar Series

For a small fee, the Biodynamic Association offers ongoing webinars on pertinent topics. <https://www.biodynamics.com/webinars>

Chesapeake Biodynamic Network (CBDN), College Park, MD

Meetings, networking, Agriculture Course study and biodynamic workshops held monthly in College Park, MD. Contact Michael Judge for the schedule at mjudge2000@gmail.com.

The Pfeiffer Center, Chestnut Ridge, New York

Workshops and trainings. www.pfeiffercenter.org

Spikenard Farm Honeybee Sanctuary, Floyd, VA

Classes in sustainable beekeeping and biodynamics. Apprenticeship/internship opportunities. www.spikenardfarm.org

Online Resources:

Rudolf Steiner Archive

Lectures and books; donation requested. www.rsarchive.org/

Rudolf Steiner Audio

Audio version of lectures and books. Donation requested. www.rudolfsteineraudio.com

Bio-Dynamics Journal (1941–2007): Soil & Health Library

Articles by E.E. Pfeiffer, Sir Albert Howard, Albrecht papers and others. One time donation of 10 Euros. www.soilandhealth.org

<https://earthhavenlearning.ca/seed-regeneration.php>.

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“Yarrow is indeed a miraculous creation. . . . Yarrow stands out in Nature as though some creator of the plant-world had had it before him as a model, to show him how to bring the sulphur into right relation to the remaining substances of the plant.”

Rudolf Steiner, *Agriculture Course*, (Adams trans.), p. 91



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