

Biodynamic Orchardring


1



2

What Is Biodynamics?

3



Biodynamic Agriculture entails moving beyond the mechanical aspects secular science offers and applying esoteric and spiritual practices to the growing of food and fiber. These practices involve the use of 'preparations', animals, and a cosmic calendar, but also requires sound regenerative agronomic practices to fully enliven the farmscape.


It has the three-fold foundation of

- As above, So Below
- Farm as Organism
- Closed Farm System

4

Rudolf Steiner
(February 1861 – 30 March 1925)


- Philosopher, social reformer, architect, and esotericist – and of course the father of biodynamic agriculture.
- In 1924, a group of farmers concerned about the future of agriculture requested Steiner's help.
- He responded with a lecture series on an ecological and sustainable approach to agriculture that increased soil fertility without the use of chemical fertilizers and pesticides.
- He died in March 1925 after a prolonged illness.




Rudolf Joseph Lorenz Steiner

5


Forefathers of Biodynamic Agriculture




Paracelsus
1493-1541



Bohme
1575-1624




Goethe
1749-1832




Von Humboldt
1769-1859

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Post-Steiner Biodynamic Agriculture




Pfeiffer
1899-1961



Porter
1916-



Thun
1922-2012



Courtney
1932-2020

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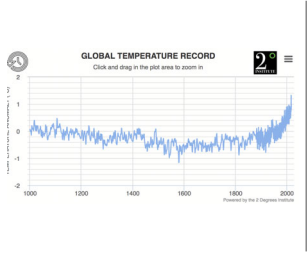
Why Biodynamics?

Climate, Soils, Biodiversity, Spirituality


8

GLOBAL TEMPERATURE RECORD

Click and drag in the plot area to zoom in



Powered by the 2 Degree Institute

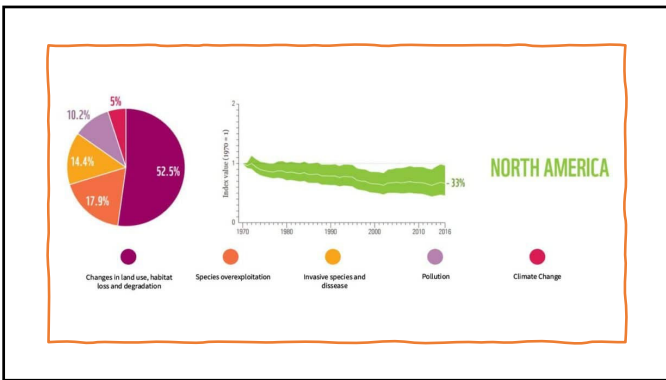


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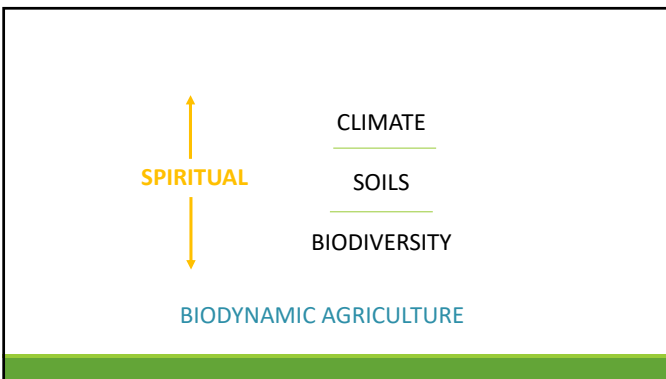


Erosion from wind and water annually robs our nation's farms of billions of tons of soil. In fact, US farms are currently losing twice as much topsoil to erosion per year as the Great Plains lost in a typical year at the height of the 1930s Dust Bowl, one of the most devastating agricultural and social disasters in our history. *Natural Resources Defense Council*

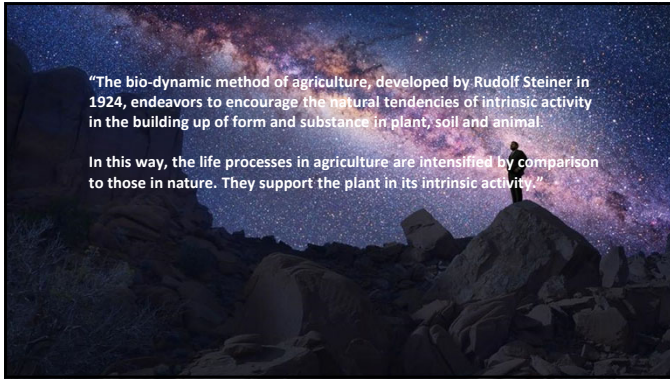
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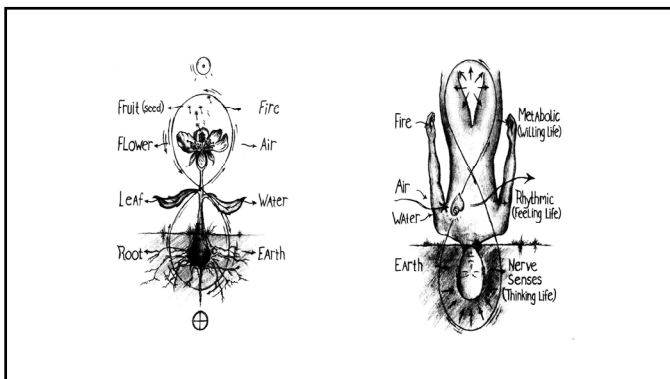
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in Opposite Phyllotaxis									
Calendar of the Last Vernal 48-51									
DATE	DAY	MOON	PHASE	CONJUNCTIONS OPPOSITIONS & EVENTS	AM	PM	WORK NOTES		
1	WED	♂	☾	♂♂	♂♂	♂♂	Flower		
2	THUR	♂	☾	♂♂	♂♂	♂♂	Flower		
3	FRI	♂	☾	♂♂	♂♂	♂♂	Flower		
4	SAT	♂	☾	♂♂	♂♂	♂♂	Flower		
5	SUN	♂	☾	♂♂	♂♂	♂♂	Flower		
6	MON	♂	☾	♂♂	♂♂	♂♂	Flower		
7	TUE	♂	☾	♂♂	♂♂	♂♂	Flower		
8	WED	♂	☾	♂♂	♂♂	♂♂	Flower		
9	THUR	♂	☾	♂♂	♂♂	♂♂	Flower		
10	FRI	♂	☾	♂♂	♂♂	♂♂	Flower		
11	SAT	♂	☾	♂♂	♂♂	♂♂	Flower		
12	SUN	♂	☾	♂♂	♂♂	♂♂	Flower		
13	MON	♂	☾	♂♂	♂♂	♂♂	Flower		
14	TUE	♂	☾	♂♂	♂♂	♂♂	Flower		
15	WED	♂	☾	♂♂	♂♂	♂♂	Flower		
16	THUR	♂	☾	♂♂	♂♂	♂♂	Flower		
17	FRI	♂	☾	♂♂	♂♂	♂♂	Flower		
18	SAT	♂	☾	♂♂	♂♂	♂♂	Flower		
19	SUN	♂	☾	♂♂	♂♂	♂♂	Flower		
20	MON	♂	☾	♂♂	♂♂	♂♂	Flower		
21	TUE	♂	☾	♂♂	♂♂	♂♂	Flower		
22	WED	♂	☾	♂♂	♂♂	♂♂	Flower		
23	THUR	♂	☾	♂♂	♂♂	♂♂	Flower		
24	FRI	♂	☾	♂♂	♂♂	♂♂	Flower		
25	SAT	♂	☾	♂♂	♂♂	♂♂	Flower		
26	SUN	♂	☾	♂♂	♂♂	♂♂	Flower		
27	MON	♂	☾	♂♂	♂♂	♂♂	Flower		
28	TUE	♂	☾	♂♂	♂♂	♂♂	Flower		
29	WED	♂	☾	♂♂	♂♂	♂♂	Flower		
30	THUR	♂	☾	♂♂	♂♂	♂♂	Flower		
31	FRI	♂	☾	♂♂	♂♂	♂♂	Flower		

19

Biological Realities

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21

There is no doubt that there are insects, bacteria, and fungi that will attack an apple tree. However, instead of thinking of these organisms as "the enemy," we must think about them in terms of their own biological imperative.

Is the person that eats the apple anymore a 'pest' than the codling moth that does so?

No. The relationships are contextual, and the codling moth deserves respect as a surviving often thriving organism just as we do, or the beneficial insects that help control certain insects that can damage our crops.

That doesn't mean we ignore the so-called 'pests', but instead of going to war against them, we work to control the damage they can do by modifying the farmscape to dissuade them.

22

Vitalism

Biodynamics provides a nurturing, nourishing, supportive environment by using biodynamic preparations, its practices, and principles.

23

"Dis-ease" occurs when there is an imbalance of physical and cosmic forces. In essence: excessive ethericity, insufficient astrality

- excessive nitrogen forces
- excessive watery moon forces
- insufficient beneficial microbes
- improper nutrient balance

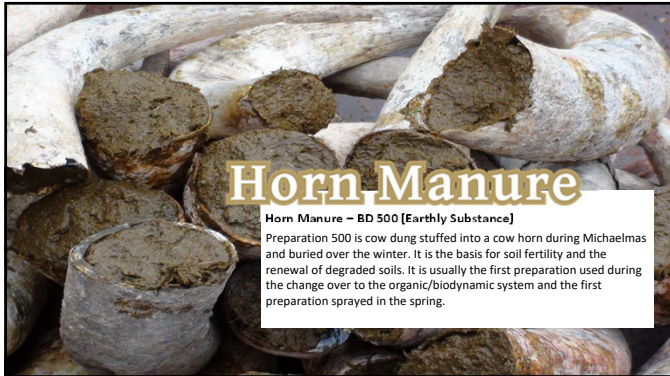
24

Biodynamic Tools

25

The Preparations

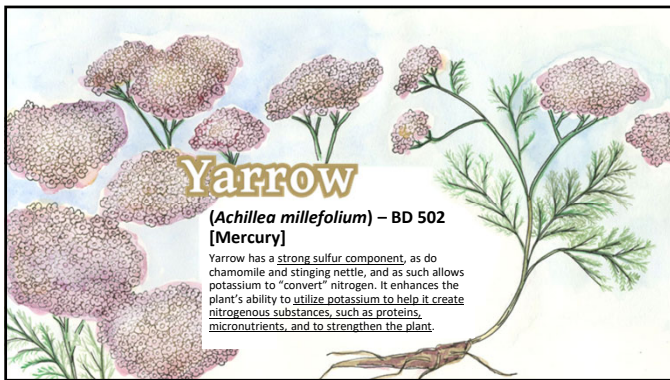
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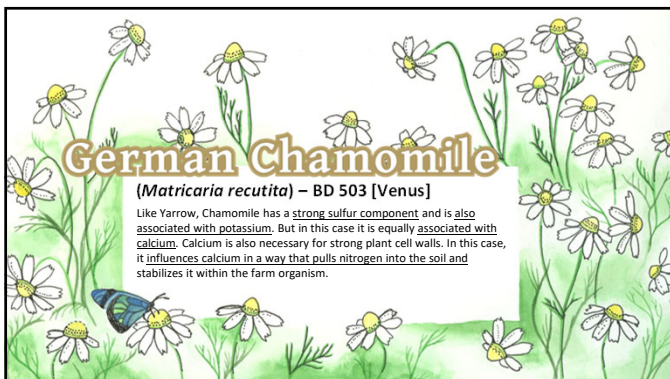
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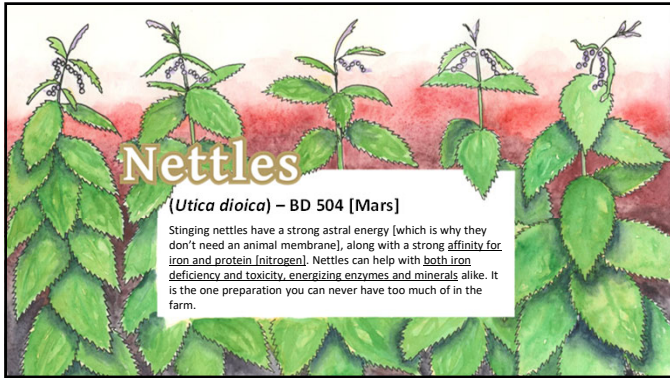
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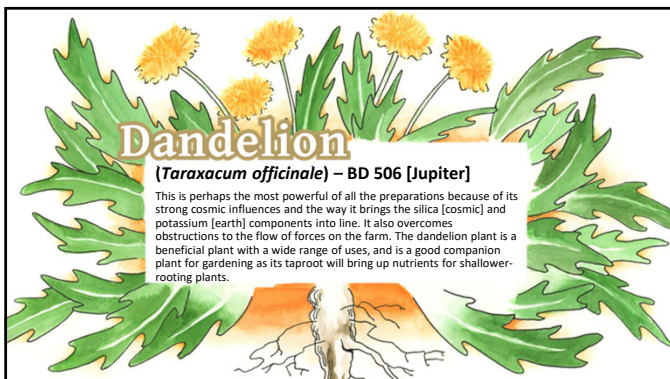
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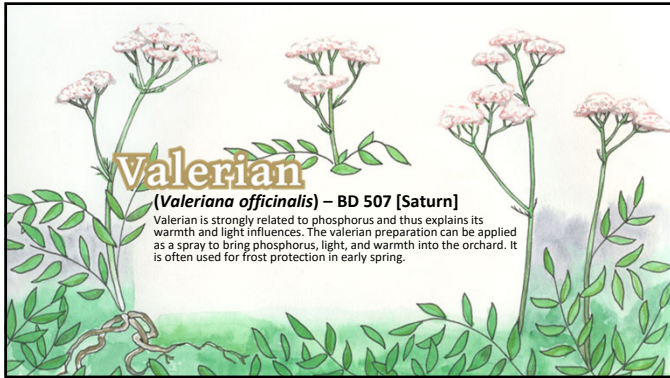
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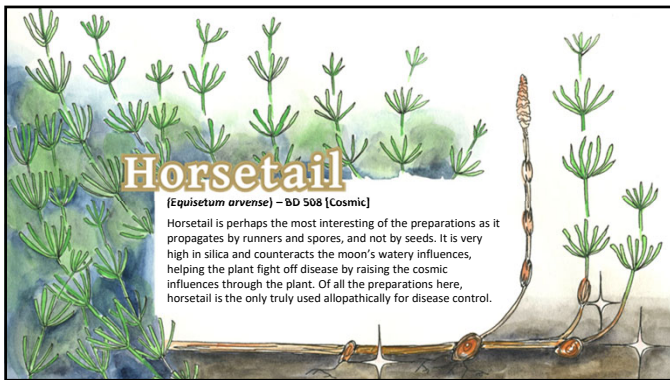
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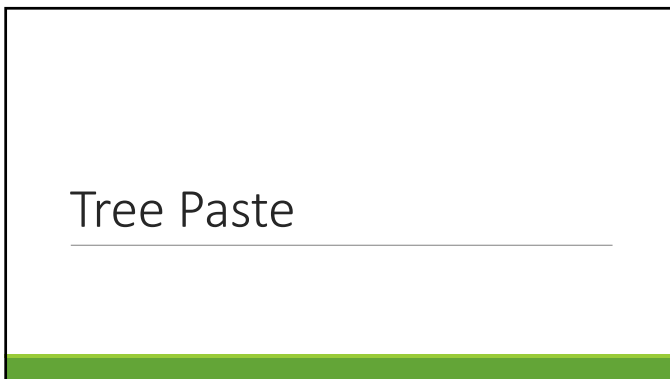
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34



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36

What is Biodynamic Tree Paste?

- Rudolf Steiner considered the trunk of a tree an extension of the root and soil and so visualized the trunks as a "transitional" area for treatments to improve tree health and productivity.
- **CLAY.** If you have a good local source of sticky clay, that is the best. You can also take a "clayier" soil and strain it to get the clay component, but that can be a lot of work.
- **COW MANURE.** *Fresh or composted cow manure.* BD500, or barrel compost can provide the beneficial microbes and nutrition to help heal wounds and fend off pathogenic fungi.
- **SAND.** *River sand.* Silica is critical in biodynamics, yet several sources suggest substituting sand with lime, siliceous rock, or diatomaceous earth. These components provide silica and other minerals, as well as providing a binding agent.

37

Ingredients


- Clay – 33%
- River Sand – 33%
- Cow Manure or Barrel compound – 33%
- Equisetum tea

Mix dry ingredients well.

Make Equisetum tea (diluent)

- Add one (1) gallon simmering rainwater to four (4) units BD508 (dried horsetail). Allow to simmer and cool. Strain when ready to use.
- **Tree Wash** – use prepared tea to wash the trunk and limbs before applying the tree paste. Apply liberally and allow to dry.
- Add diluent to the dry ingredients until it reaches a "pastey" consistency. Mix for 20 minutes in one direction. Strain if needed to remove any large particles.
- You can add other ingredients that you deem important such as finely ground, toasted eggshells, pest peppers, or oils.

Apply liberally to the tree architecture from the ground up into the canopy or scaffold branches.



38

Certainly, there are variations on this theme. We can change proportions, add different ingredients, add the biodynamic preparations, etc. to address specific needs at specific times of the year by influencing the life forces. Even the timing of application can be considered.

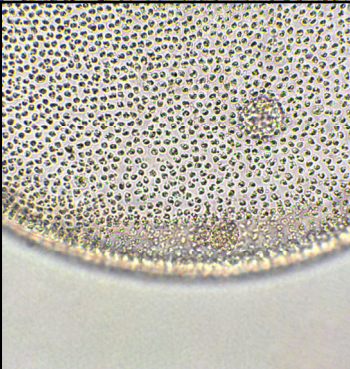
In the spring we want to encourage greater awakening or enlivening by using a fresher manure, whereas....

In the fall, we want to encourage more astral or hardening influences through the use of a composted or aged manure.

39

Silica

40



Outer planets draw the plant life into a relationship with the cosmos and awaken the plant sense of life and absorbs everything from the outer planets.

Silica – siliceous (Si + O₂), outer planets, nourishments/food

Inner Planets - From the spheres of the Moon, Venus, and Mercury that which is absorbed empowers the plant to reproduce.

Calcareous – lime, salts, inner planets, plant reproduction and growth.
Cosmic Agriculture: The origin of biodynamic farming by Rudolf Steiner

41



Silica

- encourages awakening of life forces in soil
- enhances photosynthesis
- builds healthy cell structure
- disease fighting through its astral/cosmic qualities
- counters excessive moon influences

501: uses as a spray to encourage photosynthesis, warmth, drying, and outer planet cosmic forces

508: as a fresh or fermented plant tea applied throughout the year to not counteract the watery moon influences and reduce disease, but to also help release the cosmic forces that can get trapped in the soil.


42

Sequential Sprays

43

Too Much Moisture


- Identify three fire/warmth days in a row, when the moon stands in front of a "fire/fruit" constellation: Aries, Leo or Sagittarius. The preferred position of the moon may be waning, ascending and near perigee (the reverse of when you want to attract moisture).
- The evening of the first day, BC would be sprayed.
- The following morning at dawn, equisetum would be sprayed and in the
- The evening of that day, horn manure (BD #500) would be sprayed.
- The last day, at sunrise, horn silica (BD #501) is sprayed.
- If only two fire days are available, the abbreviated sequence may be used by again combining BC and BD #500 the first evening and combining BD #501 and BD #508 the following morning. One could also spray on air/flower days as a second choice.



44

Dry Conditions

- Identify three consecutive "leaf/water" days that are not in a "black out" or unfavorable period. Leaf/water days occur when the moon sits in front of a "water" constellation: Cancer, Scorpio or Pisces. It is also good to consider ascending and descending positions of the moon. A descending position would be favorable to call in moisture. A waxing or full moon is also preferable.
- In the evening of the first day, spray Barrel Compost (BC) out over your property.
- In the morning of the second day, at dawn, spray out BD #501 (horn silica) over the same area. In the evening, spray out BD #500 (horn manure).
- On the morning of the third day, spray out BD #508 Horsetail (*Equisetum arvense*) either as fresh tea or the fermented version that has been stirred for 20 minutes.



45

Pest Peppers

46

Steiner, Kolisko, and Thun all mentioned and worked with pest peppers or ashing. But it was Hugh Courtney that brought the work under his wing and helped it evolve, even though his work is incomplete.

In essence, we are creating counter forces to excessive ethericity and reproduction by 'ashing' the seeds of a plant, skin of an animal, or whole insect in their reproductive phase.

It is also possible to achieve the same results with plants that propagate by runners, stolons, or roots through creating a decomposition slurry and mixing into your compost pile.

Steps 1-4: Collect reproductive portion or fertile stage at the right time. 'Ash' the seeds, skins or insects with wood ash. Dynamize and mix with lactose to expand the substance.

Step 5: Create a D8 homeopathic dilution (possibly in 508) and apply to the field, land, perimeter or wherever you want to discourage the weeds or pests.

Steps 6-9: Repeat! It takes up to 4 years to achieve full results, but you should begin to see results by year 3.

47

Applied Biodynamics

48

Winter

- Breathing In, Rest, Dormancy
- Pruning

Spring

- Life Forces Awaken, cosmic "pushes" the sleeping life forces into the tree
- Breaks dormancy, bud swell/bud break, bloom
- Our work is influencing the etheric over the astral, but not in an excessive manner.
- Spread biodynamic compost
- Biodynamic Tree Paste *also first Horsetail (508) application in the form of tree wash*
- Yarrow and Chamomile for reproductive influences as trees come into bloom.
- Valerian (507) for frost control, but also its light and warmth influence during pollination/fertilization
- You can never have enough 504 (nettles) either as preparation or plant tea.
- Horsetail (508) is indispensable for 'disease' control; balancing the astrality of the silica with the etheric growth forces and perhaps watery moon influences.

49

Summer

- Trees are fully awake, fruit set, fruit growth
- Balanced astral:etheric influences
- Silica (501) for fruit thinning
- Floral/terminal bud set at end of summer. Vegetative growth ceases.
- Yarrow (502) and Chamomile (503) to induce fruit bud set in late spring/early summer
- Moving more towards an astral impulse as fruit grows and starts to mature
- Continue with horsetail (508) sprays as needed for 'disease' control. Oak bark (505) to counter the watery influences of the moon, nettles (504) to balance and harmonize, and valerian (507) for warmth, light and phosphorus
- Sequential Sprays

Autumn

- Full astral influences to ripen fruit and counteract the etheric influences as the trees start to wind down their growing season.
- Influencing the astrality over the etheric
- Fruit is ripening and approaching harvest
- Silica (501) for ripening of fruit.
- Fall tree paste applications following harvest

50



- Be aware of your local environment
- Know there are other influences such as genetics and your neighbors
- Use of biodynamic preparations
- Balanced nutrition, proper mineral ratios, micronutrients
- Avoid excessive nitrogen inputs
- Balanced microbial populations of fungi and bacteria
- Balanced astral and etheric influences, shifts as you move through the season
- Supportive phytochemistry through the use of plant and compost teas
- Approach your work with love, intention, and compassion

51

Mike Biltonen

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Josephine Porter Institute for Applied Biodynamics – President
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