

## Homemade Fertilizer Power

Dynamic Accumulators - Garden bioaccumulators-

**Calcium:** chamomile, chicory, cleavers, coltsfoot, dandelion, horsetail, mustard, plantain, sorrel

**Chlorine:** nettles, comfrey, raspberry, blackberry

**Copper:** burdock, chicory, chickweed, cleavers, dandelion, fennel, garlic, horseradish, sea holly, sorrel, yarrow

**Flourine:** beet and chard leaves, garlic, watercress

**Iodine:** asparagus, cleavers, garlic, sea holly, all seaweeds

**Iron:** artichoke, asparagus, blackberry, burdock, chicory, comfrey, dandelion, nettle, parsley, raspberry

**Magnesium:** artichoke, carrot leaves, dandelion, mullein, oak, walnut leaves

**Phosphorous:** asparagus, chickweed, dill, fenugreek, flax seed, sorrel, watercress

**Potassium:** borage, carrot leaves, comfrey, dandelion, fennel, mullein, nettle, peppermint, plantain, rhubarb, walnut leaves

**Silicon:** asparagus, cleavers, dandelion, flax seed, strawberry, most thistles

**Sodium:** cleavers, clover, comfrey, dill, fennel, garlic, nettle, violet

**Sulphur:** cabbage, calamus, fennel, garlic, mullein, nettle, plantain, watercress

All herbs above can be prepared either through herbal infusions (water just off boil poured over herbs and 20 min steep), decoctions (20 mins low simmer), or through fermentation. When to use what preparation depends on the constituent that we want out of the herb. Most herbs are prepared through infusion. Barks and seeds through decoction, and all through fermentation. We have used the approximate ratio of herbs to water (clean roof or spring water): one handful of herb to one quart of water.

**Application rates:** approximately 1 gallon per acre diluted in ten gallons water 3-5 times a week

**On fermentation:** Fermenting brews should be aerated daily with a stir. If your into biodynamics then 15-20 minutes, changing directions several times should do the trick. Adding molasses is a good way to temper stinky brews like nettles, horsetail and comfrey.

**Additives:** Molasses- if it smells, worm bin juice- good source of humic and fulvic acids, Milk- stimulates calcium absorption (better if raw, organic, on farm), Honey- fosters maturation and fruit quality (raw, organic, on farm), Calcium acetate- dry egg shells dissolved in vinegar (1/10 weight ratio)

**Farm and Garden home fertilizers:**

Wood Ash with urine- Surendra Pradhan, environmental scientist at University of Kuopio, Finland(10 lbs wood ash gives 1 pound potassium + traces). Bones- burnt to ash, Maple Syrup- as per molasses above, Fruit rinds and coffee grounds- dried and burnt or composted , Compost- human waste food scraps

# **Raging Covercrop Bonanza**

Groundworks-

Cover crops are chosen based on maximizing total site diversity as well as their appropriateness for the season. They can be thought of as any plants covering the soil. "Weeds" can be incorporated into cover crop based on their usefulness.

Vegetable plants used in cover crop mixes are chosen based on their 'self-sowing' capabilities and seasonality. Trees, shrubs, and various perennial and biennial plants can be sown depending on their cold stratification and season of sprouting.

**Winter Solstice (Dec. 21) - Vernal Equinox (March 20):** All clovers (including sweet clover and alfalfa), mustards, turnips, orache, parsnip, parsley, garlic, chives (including garlic chives), onion sets, burdock, comfrey divisions, Jerusalem artichoke tubers, Chinese artichoke tubers, bare root trees, scorzonera, borage, dill, calendula, mache, rye, wheat, oats, hairy vetch, partridge pea, lettuce, chervil, angelica, etc

**Vernal Equinox (Mar 20)- Summer Solstice (Jun 21):** All Clovers, Brassica (cabbage family), peas, fava beans, sunflowers, flax, borage, chicories (endive, radicchio, witloof, etc), buckwheat, rye, wheat, castor bean, corn, millet, dill, calendula, salsify, radish, borage, hemp, amaranth, quinoa, swiss chard, cilantro, lambs quarter etc

**Summer Solstice (Jun 21)- Autumnal Equinox (Sept 22):** Corn, Sorghum, peas, beans, millet, sudangrass, flax, mustards, turnips, radish, cowpea, castor, sun hemp, buckwheat, pumpkins, amaranth, purslane, etc

**Autumnal Equinox (Sept 22)- Winter Solstice (Dec 21):** wheat, rye, mustards, turnips, radish, hairy vetch, peas, clovers, tree seeds needing winter stratification (oaks, chestnut, apple, hazelnut, etc), garlic, mache, lettuce, chervil, cilantro, dill, borage, calendula, angelica, burdock, divided perennials, bareroot trees

**Seed Mixes:** These are formulated on the timing of seeding (above) and the size of the seed generally. Fava beans seeded in the spring are generally not added to seed mixes with clovers, lettuce and brassicas because the seed is much larger and doesn't get evenly spread with the other seeds, the same for peas, sunflowers, castor beans, oaks and chestnuts.

**External Influences to Timing:** Seeding should correspond with rains, either in the spring or in the late summer. We may find ourselves seeding fall equinox plants in the middle of August when fall rains begin. We may have an exceptionally warm spring bringing warm season plants into the picture sooner than expected.

**Hacking Fukuoka:** Cover crops intended for the coming season may be seeded into growing crops of the current season. An example of this would be sowing fall equinox plants into maturing summer cover (the timing for this coincides with those August rains mentioned above). Whole ecosystems can be stacked in seeding's throughout the year.

**Seed Saving:** This gives us access to large amounts of seed for little work. Bulk cover crops can be purchased in the first few years. Whole grains intended for animal feed can be substituted.