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## Seed Soaks with the Biodynamic Preparations

*Hugh Courtney*

One very valuable technique to use in getting off to a good start in the garden is that of using the appropriate biodynamic preparation as a seed bath or seed soak prior to planting the seed. Such a treatment is especially useful where one must use bought-in seed, almost all of which comes from a chemical background. However, even seed from organic sources has, so to speak, lost its connection to its cosmic archetype or "blueprint." If you already have biodynamic seed, and keep in mind it takes several generations to reconnect the seed to its cosmic forces, and you have the time to seed soak, it will be well worth the effort. A soaking of the seed with the most suitable biodynamic preparation helps to re-establish this connection to the cosmos from the moment of germination. Where seed baths are used with diligence, two principle benefits can be noticed. The first benefit is that germination rates are much higher. Advantage number two is that fruit set is significantly greater. This improvement in fruit set is easily ob-

served in the case of legume crops. Unfortunately, this seed bath technique is very much underutilized by biodynamic growers in this country.

In an effort to increase the use of this technique, we have gleaned information from several different sources and have compiled them in a convenient tabular form. Unfortunately, at this point, all these sources are secondary and the original research done in Europe has yet to be translated into English. We hope to remedy this shortcoming in the future. In the meantime, we have used three different sources that deal with this subject:

- Castelliz: *Life to the Land*, Lanthorn Press, 1980.
- Koepf, Pettersson and Schaumann: *Biodynamic Agriculture*, Anthroposophic Press, 1976.
- Satler & Wistinghausen: *Bio-Dynamic Farming Practice*, Bio-Dynamic Agricultural Association, 1992.

What appears in this article is largely a synthesis of what we have learned from these three sources.

## Seed Soak Guide

CROP	PREPARATION	CROP	PREPARATION
<b>Cereals</b>		<b>Vegetables</b>	
wheat	507	chard	500
rye	502	chicory	507
oats	505	collards	503
barley	504	cucumber	507
rice	?	eggplant	? (likely 507)
corn (maize)	507	garlic	? (likely 507)
millet	?	kale	503
linseed	503	kohlrabi	503
<b>Cover crops</b>		leek	507
alfalfa	503	lettuce	505
clover	503	melon	? (likely 507)
grasses	502	mustard greens	503
<b>Flowers</b>		okra	?
sunflowers	Biodynamic Compound Preparation	onion	507
other flowers	?	parsley	?
<b>Herbs</b>		parsnip	?
herbs	?	peas, English	503
<b>Vegetables</b>		peas, field	503
artichoke	?	peanuts	? (likely 503)
arugula	?	peppers	507
asparagus	?	potatoes	See Sattler and Wistinghausen, <i>Biodynamic Farming Practices</i> , pgs. 175-180, or other pertinent references.)
beans	503 (505 for bush beans)	pumpkin	507
beets	507 or 507 plus Biodynamic Compound Preparation or 1 part BC plus 4 parts water plus 5 parts whole milk, let stand for 24 hours, stir another 5 minutes prior to use.	radish	503
broccoli	503	rutabaga	? (likely 503)
brussels sprouts	503	scallion	507
cabbage	503	spinach	500
cantaloupe	507	squash	? (likely 507)
carrot	507 or BC/water/whole milk soak (see beets)	sweet potato	? (? 500 ?)
celeriac	507	turnip	503
celery	507	tomato	507
		watermelon	? (likely 507)

To employ the preparations as a seed bath, one should stir them in the biodynamic fashion for the usual time: the BD #500 for its usual one hour period and the #507 for the recommended ten to twenty minutes, depending upon one's preferred stirring-time "authority." When the compost preparations #502-506 are used, although the one hour stirring time could be employed, a more "user friendly" method is suggested by the sources mentioned above. For smaller quantities of seed, one unit of the selected preparation is placed in one or two pints of water, stirred vigorously for

up to five minutes and then allowed to stand for twenty to twenty-four hours.

Another brief stirring is done just before the actual seed treatment. Some crops are treated with "manure water" (prepared manure, or manure treated with #502-507), or with "birch pit concentrate", both of which are akin to Barrel Compost in their effects. When such instances arise, we will cite Barrel Compost in the table. In one or two instances, whole milk is suggested as an additional ingredient in the seed bath. The length of time recommended for soaking is

generally ten to fifteen minutes. Seeds with a hard coating, such as parsley or carrots, could be given a longer bath. However, with seeds such as peas or beans, a longer soak will cause them to slough off the seed coat and lose their germinating capability. Seeds can be drained using a kitchen strainer or else they can be suspended in the bath solution in a cheesecloth bag. Once removed from the solution they can be spread out on bath towels or paper towels for relatively rapid drying. It is best to plant the treated seed within twenty-four to forty-eight hours after treatment. For field planting of larger quantities of seed, a somewhat different technique is employed. Anyone of the three sources cited can provide an adequate description of the technique, so I must refer the reader to those. Recommendations for treatment of potatoes, especially in *Bio-Dynamic Farming Practice*, are so extensive that I must also refer the reader to that source for the exact details.

In general, a seed bath with BD#500 would benefit virtually all crops, especially as far as root development is concerned. However, in the research done in Europe, principally by Martha Kuenzel and Franz Lippert, individual preparations were found to enhance plants in a more effective way than was the case when a compound preparation, i.e. Barrel Compost, was used.

Although cereals especially seem to each have a preferred preparation, my own experience with seed baths has led me to evolve a "quick and easy" rule of thumb to remember which preparation goes with which seed. The table provided will readily identify the exceptions to the following:

- legumes and brassicas – BD#503 (chamomile preparation)
- lettuce crops – BD#505 (oak bark preparation)
- fruit crops (other than legumes) – BD#507 (valerian preparation).

An analysis of the recommendations in the table on page 23 will quickly reveal that preparations #501, #506 and #508 are not among those listed. Several years ago, in a "seat of the pants" seed bath experiment with corn (maize) which I never replicated, I felt that I obtained the best results with the plot that had been treated with a combination of #501 and #506. That particular plot had a higher yield and almost no corn ear worm damage in comparison to the several other plots that had received a variety of different treatments. Much more experimentation seems desirable in this area of seed soaks.

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## Seed Soaks: Another Approach

*Steven Adams*

I started out in biodynamics wondering about mixing preparations. I had heard differing opinions, but decided that mixing them worked for me. When I started to work with seed soaks I used horn manure #500, barrel compound preparation, and equisetum #508. I also tried the procedure Hugh Courtney mentions above, using specific preparations for specific seeds. I sometimes would use the mixture (#500, barrel compound, #508) in conjunction with a specific preparation that had been identified with a particular plant. Currently, I use only the three preparations noted and feel that using them in combination has resulted in strong and healthy seedlings.

I have worked out a different technique for doing seed soaks. I make indentations or small furrows in my seedling flats and plant the seeds. I stir my mixture, sometimes for only twenty minutes even though #500 is in there. It is a question of timing and of trying to get everything done in the spring. After stirring, I put the mixture in my backpack sprayer and

water the seedling flat, really soaking the whole flat with the stirred preparation. At times I have even put the mixture in a watering can and watered the flats. After watering, I take more potting soil mix and cover the seeds lightly.

I also use this same method in the garden. One cannot use a seed soak with peas or beans, as their seed coats will pop off. I place the peas or beans in a furrow I make with a hoe, take the backpack sprayer and soak the whole furrow, then cover it with soil.

If people are using a planting calendar I would suggest that they try to soak seed at the time they want to get the most effect. If one is trying to get the influence of moon/Saturn, soak seed as close as possible to their opposition, as noted in the calendar. If planting them isn't possible on a particularly advantageous day, one might even want to soak seeds the other way (placing the seeds in cloth and submerging them) and then let them dry out. The seeds can then be planted at a more convenient time.