

Brief Directions for the Use of Biodynamic Sprays 500, 501 and 508

We are in the process of updating the instruction sheets for use of the biodynamic spray preparations. We would appreciate your careful examination of this material. Please make any suggestions to better clarify the information in our effort to educate biodynamic practitioners in the use of the preparations. We enclose in this newsletter a copy of the current instructions.

Soil Spray 500 (Horn Manure)

Applicable to: BD #500, (X)500 and "Prepared" 500

Keep moist until ready to use. Partial quantities may be used, keeping the same proportions and stirring the appropriate time for each. Spray only on areas previously fertilized with: manure, and/or compost treated with BD Preparations #502 to 507, or at least sprayed with Biodynamic Compound Preparation (a.k.a. Barrel Compost or BC).

BD #500 – One of the preparations based on the original indications given by Rudolf Steiner. Stimulates root growth and humus formation.

"Prepared" 500 – Created by Alex Podolinsky. It is the same as 500 but includes BD preparations 502 to 507. This is used where sufficient biodynamic compost is unavailable, although it is advised that "Prepared" 500 is not to be regarded as a long-term substitute for actual compost. In Australian practice, "Prepared" 500 is used only after BD #500 has been applied for at least two years.

(X)500 – This preparation was formulated at the Josephine Porter Institute. Same as BD #500 but is pre-potentized so that it requires stirring for only 20 minutes. Please note that BD #500 and "Prepared" 500 require 1 hour of stirring.

Time

- In the latter part of the day. Application within one-half hour of sunset is ideal.
- Mainly in spring or fall.
- Preferably on an overcast day.
- Shortly before seed sowing or transplanting.
- If possible, avoid applying just before or during a heavy rain, or in windy conditions.
- More effective if soil is moist.

Use

- One unit (¼ cup) of 500 in 3 to 5 gallons of lukewarm water. Must be stirred in enough water to cover area up to 1 acre for each unit being used.
- Rainwater or other water not contaminated with chemicals.
- A clean container with no chemical residues large enough (at least 6 to 8 gallons) to prevent splashing out.
- A light-weight, but strong stick – discover by experience

what length you like. Note: This applies to those who prefer not to stir the preps with their hands.

Stir

- *Vigorously* in one direction until liquid forms a deep crater. *Quickly reverse* direction and repeat.
- Using direct from the shoulder motion, not just wrist motion. For bare hand stirring, preferably change hands with each reversal, stirring towards the heart region, i.e., with left hand stirring in a clockwise motion and right hand stirring in a counter-clockwise motion.
- For **BD #500** or **"Prepared" 500**, continue this alternation every 30 to 60 seconds or **so for 1 full hour**.
- For **(X)500**, continue this alternation every 30 to 60 seconds or **so for a full 20 minutes**.

Spray

- As soon as possible after stirring – it starts to deteriorate in about 4 hours, and if left overnight is useless. Note: The only exception to this is (X)500, which may remain potent for up to 4 days, although this has not been scientifically verified.
- With *clean* utensils – chemical residues could make the 500 preparations useless.
- With ordinary sprayer with wand pointing downwards towards ground. For small areas of one acre or less, a bucket and whisk broom dispersing with an underhand motion.
- When using spray equipment (mechanical sprayer) be sure to strain or sieve out larger particles to avoid clogging nozzle(s).
- Covering 1 acre of ground with this amount.
- If possible on soil that has been recently worked.
- If possible, follow spray with a light raking or shallow (1 to 3 inch) cultivation.
- If on area where 500 has been used before, quantities may be more *dilute*, increasingly so with each application. Again, scientific verification is still needed.

Plant Spray 501 (Horn Silica)

Applicable to: BD #501, BD #501(F) and 501(5x)

Keep in any dry or sunny place until used. Keeps indefinitely if dry. *Spray only on area where 500 has been used previously.*

BD #501 – Quartz-based silica preparation made according to the original indications given by Rudolf Steiner. Stimulates, regulates and harmonizes leaf growth.

BD #501(F) – Feldspar-based silica preparation which is suggested for sandy soil. Same use as quartz-based BD #501. Feldspar is principally aluminum silicates of potassium, sodium and calcium.

#501(5x) – Same use as other forms of #501. This preparation was homeopathically formulated at the Josephine Porter Institute. It is provided at the 5th homeopathic potency and only needs to be stirred for a brief period. JPI recommends a 20 minute stir. Please note that BD #501 and BD #501(F) require 1 hour of stirring.

Orthoclase – While this is not currently available at JPI, orthoclase could also be used to make a 501 preparation since Rudolf Steiner specifically mentions it when giving indications for 501. A particular form of feldspar, orthoclase is potassium aluminum silicate.

Time

- At sunrise, early enough that the morning dew is still present on foliage.
- Only after plant roots are well established.
- *Never* before transplanting.
- Usually in late spring or early summer when warm weather is well established.
- Use caution when applying when there is danger of frost.
- With seedlings – when second or third leaves have unfolded.
- *Never* on young shrubs, evergreens, fruit trees or vines.
- With trees or vines – not until they are of bearing age.
- In foliar emergencies – when diseases or pests have destroyed much foliage.
- Only following blossoms on trees or shrubs where these come before leaves.
- Especially during wet seasons with too little sunshine. Indoors or in greenhouses – during shortest days of the year.
- If possible, avoid applying just before or during a heavy rain, or in windy conditions.

Use

- For 501 or 501(F), one unit (½ teaspoon) in 2½ to 3 gallons of lukewarm water.
- For 501(5x), one unit (½ teaspoon) in 2½ to 3 gallons of lukewarm water.
- Rainwater or other water not contaminated with chemicals.
- A clean container with no chemical residues, large enough (at least 6 gallons) to prevent splashing out.
- A light-weight, but strong stick – discover by experience what length you like. Note: This applies to those who prefer not to stir the preps with their hands.

Stir

- *Vigorously* in one direction until liquid forms a deep crater. *Quickly reverse* direction and repeat.
- Using direct from the shoulder motion, not just wrist motion. For bare hand stirring, preferably change hands with

each reversal, stirring towards the heart region, i.e., with left hand stirring in a clockwise motion and right hand stirring in a counter-clockwise motion.

– For 501 or 501(F), continue this alternation every 30 to 60 seconds or so **for 1 full hour**.

– For 501(5x), continue this alternation every 30 to 60 seconds or so **for a full 20 minutes**.

Spray

- As soon as possible after stirring – it starts to deteriorate in about 1 to 2 hours.
- With *clean* utensils – chemical residues could make the 501 preparations useless.
- With ordinary sprayer (will need straining first) with wand in an upward direction using a fine mist – adjust nozzle on sprayer; for small areas of one acre or less, a bucket and whisk broom dispersing with a vigorous underhand motion to create smaller droplets. Ideally one wants to create a fog-like atmosphere around the plants.
- When using spray equipment (mechanical sprayer) be sure to strain or sieve out larger particles to avoid clogging nozzle(s).
- At waist level into the air or slightly above foliage – particularly effective when impacting stomata on underside of leaves. It will do no harm to soil.
- Covering an area of 1 acre with 1 full unit.

Soil and Plant Spray 508

Applicable to: Fresh and Fermented Tea Versions of BD #508 (Equisetum arvense/Horsetail Herb)

Keep herb dry and in darkness until needed. Part portions may be cooked, keeping same proportions. *Fully effective only when used following other biodynamic preparations.*

BD #508 – One of the preparations based on the original indications given by Rudolf Steiner. One unit of dried herb makes 2 gallons of fresh tea spray, or 10 gallons of fermented tea spray. The fresh 508 tea is the form suggested for use as a foliar spray to control fungus. The fermented 508 tea is mostly suggested for use as a soil spray to prevent fungus. Either form has both preventative and prophylactic properties. Preparation 508 in either form also helps to regulate the water element and harmonize lunar forces.

Time

- During wet, damp or sunless warm weather as preventive of, or cure for fungus diseases.
- Usually at two week intervals, more often if plants are in a stressed condition.
- If possible, avoid applying just before or during a heavy rain, or in windy conditions.
- More effective if soil is moist.

To Prepare as a Fresh Tea

To Make: Add one unit of 508, which is ten ounces of shredded herb by volume, or 1½ ounces by weight, to 1 quart of water – for cooking. Bring to a boil, reduce heat and simmer slowly in a covered vessel for 20 minutes. Strain herb particles from liquid. **Add** two gallons of rainwater or other water not contaminated with chemicals for later dilution. Treats up to **one acre**. See below under “Use” for further directions.

To Prepare as a Fermented Tea

To Make: The following is a slightly modified recipe of the one developed by Lily Kolisko. Take one unit of 508, which is about 10 ounces of shredded herb by volume or 1½ ounces by weight. Bring to boil in one gallon of water and simmer for one hour. Let cool and transfer to a crock or other storage container with a loose fitting lid. Store this in a cool place, e. g. basement, and allow to ferment 10 to 14 days, until the “characteristic sulfur smell” described by Kolisko develops. Thereafter, strain the remaining herb particles out, fill the tea in a glass jug, and store it in a cool dark place until ready to use. It can be stored 6 or more months without losing effectiveness. Add ½ gallon of the **fermented tea** to 4½ gallons of rainwater or other water not contaminated with chemicals for later dilution and use to **treat up to 1½ acres**. One unit of horsetail can thereby treat up to **3 acres** with as powerful effect as can be achieved by the fresh tea recipe on only one acre. Ratio for diluting is one part fermented tea to 9 parts water.

Use

- A clean container with no chemical residues large enough (at least 6 to 8 gallons) to prevent splashing out.
- A light-weight, but strong stick – discover by experience what length you like. Note: This applies to those who prefer not to stir the preps with their hands.

Stir

- *Vigorously* in one direction until liquid forms a deep crater. *Quickly reverse* direction and repeat.
- Using direct from the shoulder motion, not just wrist motion. For bare hand stirring, preferably change hands with each reversal, stirring towards the heart region, i.e., with left hand stirring in a clockwise motion and right hand stirring in a counter-clockwise motion.
- For either **Fresh** or **Fermented Tea**, continue this alternation every 30 to 60 seconds or so **for a full 20 minutes**.

Spray

- With ordinary sprayer using a fine mist – adjust nozzle on sprayer; for small areas of one acre or less, a bucket and whisk

broom can be used dispersing with an underhand motion.

- When using spray equipment (mechanical sprayer) be sure to strain or sieve out larger particles to avoid clogging nozzle(s).
- As a foliar spray apply to foliage – it will do no harm to soil.
- As a soil spray apply directly to the soil – it will do no harm to foliage. If possible, follow spray with a light raking or shallow (1 to 3 inch depth) cultivation.
- If possible on soil that has been recently worked.
- Recommended quantities will cover about **1 acre using the Fresh Tea** and **1½ acres or more using the Fermented Tea**.
- Within a few days when once cooked and diluted for the fresh tea, but stir for 20 minutes as described above before use.
- Fermented tea once prepared (but before dilution for actual application) retains viability for several months.
- If applied to the soil where 508 has been used before, quantities may be more *dilute*, increasingly so with each application. Scientific verification is still needed.

*Note: It is always important to use all nine of the biodynamic preparations (BD #500 to 508) so that a healthy balance for the land is achieved. For making compost, the **Biodynamic Compost Preparations** (BD #502 to 507) are used. The **Pfeiffer BD Compost Starter** which contains the BD Compost Preps BD #502 to 507 plus BD #500, may also be used to make compost. There are additional formulations of the preparations which provide help or a means to maximize one's efforts in applying as many preparations on the land as frequently as possible. The **Biodynamic Compound Preparation** (a.k.a. **Barrel Compost** or **BC**) is based on the recipe of Maria Thun and contains biodynamic preparations #502 to 507. While BC does not take the place of biodynamic compost, it can be used for those new to biodynamics when there is not a sufficient supply of biodynamic compost available. It is also useful for application when plants and soils are under stress from drought, insect attack, etc. The Pfeiffer BD Field Spray contains a high proportion of BD #500 along with BD Compost Preps #502 to 507 and can be used in the same fashion as a combination of the BC spray followed by BD #500 spray. It serves to build humus and is especially helpful breaking down stubble or green manure prior to incorporating them into the soil.*

For further reading consult:

Biodynamic Sprays by Herbert Koepf
Using the Bio-Dynamic Compost Preparations and Sprays in Garden, Orchard, and Farm by Ehrenfried Pfeiffer
The Biodynamic Spray and Compost Preparations: Directions For Use by Christian von Wistinghausen, et al
Handbook on Composting and the Bio-Dynamic Preparations by George Corrin