Hugh Courtney

Ashing or BD ‘Pepperings’—A Function of Lunar Forces

In the little understood sixth lecture of Spiritual Foundations for the Renewal of Agriculture, Rudolf Steiner speaks of how the biodynamic farmer or gardener may deal with the subject of pests, be they weed, animal, or insect. In this initial article on the subject, I would like to deal first of all with what I perceive as a prerequisite to working with any of the categories of pests, and for the remainder of this article, I would like to limit my discussion to the handling of weeds only. Subsequent articles will attempt to address insect and animal pests in the specific detail required.

I would like to suggest that no effort at countering pests in any category can be successful to its maximum extent if one does not first pay very close attention to what Steiner says regarding the Moon forces and the means he suggests to counter the impulse of those Moon forces when they are out of balance.

Let us first examine what Steiner says about the Moon’s forces in general. Near the beginning of lecture six, Steiner tells us how these forces are as follows:

"It is common knowledge that the surface of the Moon reflects the rays of the Sun, directing them back toward the Earth. We see these reflected rays of the Sun because we catch them with our eyes and the Earth catches them too. The rays of the Moon are reflected Sun-rays, but the Moon has imbibed them with its own forces, and so they strike the Earth as lunar forces, and have been doing so ever since the Moon separated from the Earth. This lunar force from the Moon has an intensifying effect on everything earthly." 1

A few sentences later, Steiner elaborates further:

"As I said before, we usually imagine that the Moon simply takes up the rays of the Sun and reflects them onto the Earth. In other words, when we consider the effects of the Moon, we usually think only of the sunlight. But that is not the only thing that comes toward the Earth. Along with the moonbeams, there reaches reflected comes toward toward the Earth. The Moon reflects everything that comes toward it. In a certain sense the whole stary heaviness of the Moon is reflected by the Moon and stream toward the Earth, although you couldn’t prove it by any physical means available at present. It is indeed a very powerful cosmic organizing force that radiates down from the Moon into the plants, so that the plants are also enabled to form seeds, so that the force of growth can be enhanced to become the force of reproduction." 2

My interpretation of these statements by Steiner leads me to see his description as a situation wherein the Moon totally appropriates to its own purposes not only the sunlight (and sun forces), but also the light (and forces) from all the planets of the solar system, and beyond that all the light and forces from the rest of the cosmos, and in so doing converts them as it were to ‘intensified earthly forces.’ In other words it transforms these forces and makes them almost totally its own, by imbuing them with lunar quality, which, having once been joined to the Earth, is able to stimulate an enhanced earthly force. It is this lunar quality raining down upon the Earth that leads to strengthening the relatively weak growth forces available within the Earth alone to the point where reproduction is possible for the plant world. Steiner suggests that some plants also require additional support from the cosmic forces raining down from Mercury and Venus as well. 3 One can speculate that these might be plants with a strong medicinal quality or with other unusual properties such as the Venus Fly-trap with its quality of mobile behavior. In the case of Moon, Mercury, and Venus, we are dealing not only with their specific lunar, Venetian or Mercurial forces, but also what they each collect from the rest of the solar system and the rest of the cosmos.

One should also keep in mind a description by Steiner that appears much earlier in the lectures, specifically in lecture two where he says:

"A lively interchange is constantly taking place between what is above ground and what is below ground. In addition, we can say that the above-ground activity is directly dependent on the Moon, Mercury, and Venus as they support and modify the Sun." 4

Elsewhere in this same lecture Steiner speaks of air and warmth above ground being "dead", and water and earthly matter as having "greater vitality" beneath ground. Indeed, in the living plant, we have a prime example of earthly matter and watery substance with a greater degree of vitality. Conversely, water and earthly matter below ground are dead, whereas air and warmth below ground are enlivened. The mineralized quality of a plant root below ground further illustrates this with respect to watery and earthly substance. Thus, above the soil’s surface the covered with a lid and placed in an oven or in a wood burning stove or fireplace, and then leaving them for a long time. Some individuals have claimed that effective results were obtained in such situations when the resultant seeds were essentially turned to charcoal by the ashing process, although the individual seeds did retain their form when the process was completed. (Unfortunately, I cannot locate at this time the reference that supports the preceding sentence.)

First of all, of course, one must harvest the weed seeds. Here, we immediately have the question of whether one must address each individual weed separately or whether one can address a number of problem weeds at the same time. Here at JPII, we have been taking each weed individually, because of our fondly held hope that we shall be able eventually to develop a library of various weed peppers which would be available to the biodynamic practitioner whenever the need arose. For most garden and farm situations, however, a common fire for a number of different weed seeds might be the most expedient route to take. In any case, one should gather a goodly number of fully ripe weed seeds. If one is merely treating a large garden area, then a teapot or a tabletop full of each seed may be quite sufficient. On the other hand, for many acres of crop fields, one may wish to have a sizeable bucket full of weed seeds for which control is sought. While there are any number of methods of putting the seeds through the fire, some of which have already been mentioned in the various references quoted above, I will confine my description of the various possibilities to the technique we have employed at JPII for the major part of our ashing experiments.

We use a metal tubular device that is sold through any well-stocked garden store for the purpose of igniting charcoal without using lighter fluid. (See illustration on page 2.) This charcoal starter has a metal platform about one fourth of the way up the tube from the bottom. Since this platform has very large holes in it, which would allow air to enter, we use to build a proper fire for ashing the seeds, we cut a circle of hardware cloth to fit exactly on this platform. We prefer to use hardware cloth of one-eighth inch mesh, although for larger seeds or for ashing some insects as well as most animal seeds, you could use hardware cloth of one-quarter inch mesh. On top of the hardware cloth supported by the metal platform, we build a wood fire. The source of wood for this fire is oak bark, since we have a goodly supply of thick oak bark pieces taken from already timbered trees by someone who was trying to help us out with the oak bark preparation, but who did not realize that we much prefer to take the oak bark from living trees and to take only the outermost bark when harvesting material for this preparation. Any good firewood would also be suitable, but it should be reduced to the size of small kindling. In any case, we build a little teepee of the oak bark chunks on top of the hardware cloth which is set on the metal platform; start a fire underneath the platform, using paper, such as newspaper or scrap paper from the office; and then, when a good strong flame is going, we dribble the seeds slowly into the flame. Underneath the charred metal plate, which we have used otherwise for crushing quartz. (See illustration on page 10.) We have also used a very large cast iron skillet sometimes as well. The plate or skillet catches the seeds and wood ash that has passed through the flame and fallen through the hardware cloth and below the metal platform. When everything has cooled sufficiently, we use a small brush to sweep all of the seed and wood ash residue into a metal bowl.

The next step is the one Maria Thun believes is extremely important, that is, the ‘dynamization’ process, in which we use a pestle to thoroughly grind all of the seed and oak bark ash residue together for one hour. At this point, one could choose to distribute the resultant powder directly on the soil of the area for which you are seeking protection. However, because of the small quantity of ash usually available, it may be preferable to take the dynamized ash through a potentization process (see a future issue of Applied Biodynamics for a detailed description) before spraying or sprinkling it out on the soil. Once the final product for such sprinkling is determined, one should plan on three or four applications in a row, to be applied even the same day according to Maria Thun. One could also choose those three or four applications on the subsequent day, or you could choose the preferred constellation in case one is doing only one specific weed. If we do not have a clear certainty of the proper constellation for either burning or application of the ash, I would recommend you were to use a Fire constellations close to Full or New Moon. In keeping with Maria Thun’s findings regarding weed germination, the first choice would seem to be when the Moon is in the constellation Leo/Lion. In any case, such applications should be repeated every four to six weeks for the next four years in order to achieve something approaching 100 percent effectiveness as far as desired results. The second year, the weed(s) in question will show various signs of weakness in growth, will be less likely to set viable seed, and by the fourth year they will essentially cease to be a problem. If this should not be the case, then any number of things could have given the poor results. The most
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when Moon is in Gemini/Twin. It would be important however, for each grower to conduct his/her own experiments inasmuch as each geographic location may have individualized conditions that might cause the Moon’s position in a constellation to stimulate a different group of weeds to germinate in different areas of the world. If the grower were able to dedicate an area of land where one could cultivate approximately equal areas, either on a daily basis or, at least within the first few hours after the Moon moved into a new constellation, one could determine the weed germinating relationship to the Moon’s position in the constellations for his/her own particular geographic location.

The most helpful discovery made by Maria Thun was that when the soil was worked during periods when the Moon was in Leo/Lion, one had an abundant and varied weed germination; whereas working the soil when the Moon was in Capricorn/Goat resulted in a minimum of weed germination. Thus if one cultivates the soil when the Moon is in Leo/Lion, thereby stimulating many types of weeds to germinate and then follows with another cultivation when the Moon is in Capricorn/Goat, the weed seedlings will be disrupted in their growth and end up coming out in the following season as a ‘green manure’ or ‘green man of sorts’. Thun particularly recommends that for potatoes and root crops that the last soil preparation and tillage should be done when the Moon is in Capricorn/Goat.

In Maria Thun’s work, she found that if only the weed ash itself was used, it was important to apply the ash in accordance with the Moon’s constellational position when that particular weed was at its highest germination capability. Thun found that the single most effective step that one could take in using the ashing technique was to ‘dynamitize’ the ash. ‘Dynamiza- tion’ is described as grinding the products of the ashing process using a mortar and pestle for a period of one hour. The second most effective step to be taken is to use a homopathic 8-potency as the final product to be sprayed on the area one wishes to treat. Unfortunately, the subject of potentiation and, in particular, arriving at a 8-potency, is too lengthy for inclusion in this issue of Applied Biodynamics and must be reserved for a later article.

An additional weed control technique mentioned by Maria Thun involves making a liquid manure of weeds that are not particularly suited for a compost heap, especially those with runners or a creeping habit in their growth. Such weeds as ranunculus, couch grass, thistles, goutweed, coltsfoot, chickweed, and some members of the mint family are better dealt with by using them to make a liquid plant manure. This is accomplished by filling a barrel with water and putting the weeds of this nature in a goodly quantity into the water. On leaf days it is recommended to stir the liquid for a few minutes. When all the plant matter has completely deteriorated in the water, the resultant liquid can be sprayed when the Moon is in Cancer/Crab (the constellational position for the Moon assigned to these weeds by Maria Thun). The area from which the weeds were taken, or where they are not wanted is then sprayed three times. With repeated sprayings, these troublesome weeds will be encouraged to disappear. These particular weeds also promote good growth in cruciferae, cucumbers and tomatoes when applied as a highly diluted liquid manure and can even be poured over a compost pile in order to improve the growth factors for the compost itself.

A further suggestion made by Maria Thun for more effective weed control or rather for prevention of future weed problems is to avoid applying products to the soil which are derived from animal substance such as horns, bones, blood, bristles, wool, feathers, or meal from the bodies of animals. All such substances should be composted with manure, or fresh grass, or plant material. This means that these materials originating from the bodily substance of animals should only be applied as finished compost in order not to promote weed growth (please note that Demeter standards now prohibit the use of blood and bone meal even in compost).

One final reference as background to consideration of the ashing process comes from a book newly available in English by Count Adalbert Keyserlingk, the son of the host and hostess of the Agriculture course given in their home at Koberwitz. In his memoir titled Developing Bio- dynamic Agriculture – Reflections on Early Research, Count Keyserlingk describes some of his ashing experiences as follows: “A whole bouquet of charlock seed was burned on one field exasperating the years. Earlier I had already established that the seeds must not remain in an incandescent state for long in the ashing process. The temperature had to be kept relatively low so that the incandescent phase was missed out and a brown ash remained. The weed seeds (and probably other organ- isms) will be ‘influenced only from outside by the direct non-lunar forces’, so as to curb the proliferation of the seeds. Is there, in fact, a way in which we can switch off the lunar forces? I submit that there is such a way and even though it appears that Steiner is making a humorous comment here, in fact, he is preparing us for the method which he will later introduce as one in which we can ‘switch off’ the too-strong Moon forces. It is during unusually wet years when one can expect the lunar forces to be too strong. So what happens when we have a very seriously wet year, along with other conditions that can cause the lunar forces to be even stronger than normal? Some of those other conditions could be during periods of a Full Moon, when the Moon is at perigee, or when the Moon is in a watery constellation, perhaps with support from other planets (especially Venus or Mercury) in watery constel- lations. In this instance, the lunar forces begin to work into the mineral/earthly matter of the plant and we have the conditions for fungus and mildew. Steiner’s descrip- tion of this situation is as follows:”

“Let us assume, however, that the Moon’s influence is too strong, that the soil is overly enriched. In this case, the vitality works up too strongly from below, and something that should occur only in seed formation starts to happen earlier. When the vitality is too strong, it doesn’t reach all the way to the top; its intensity makes it start working lower down. Thus because of the effect of the Moon, there is insufficient force for seed formation. The seed incorporates a kind of dying life into itself, and through this dying life a kind of second ground-level is formed above the level of the soil. Although there is no actual soil up there, the same influences are present. As a result, the seed or upper part of the plant, becomes a kind of soil for other organisms. Parasites and all kinds of fungi appear fill blights and mildews and the like. What wants to work upward out of the soil is kept from reaching the right height because of the overly strong lunar force. It is remarkable that this happens when the lunar forces are too strong rather than too weak, but that’s the way it is. A healthy seed-forming capability is absolutely dependent on the lunar forces being normal rather than being either stimulating or suppressing, rather than perception, might lead to the opposite conclusion, but that would be wrong. Direct perception reveals what I have just described.”

The fact that “weeds want to work upward out of the soil” and cannot because of the strong lunar forces is the cos- mic/silica force which Steiner associates especially with the outer planets Mars, Jupiter and Saturn.

Steiner’s remedy for this problem is to use a liquid manure made of a fairly concentrated tea of the horsetail herb, Equisetum arvense, referred to as BD #58 in some instances. This tea is then further diluted before application and used in a kind of homoeopathic manner. Steiner describes this herbal tea application as “simply the opposite of the process I described earlier.” I take the process described earlier to mean the entire paragraph
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wherein Steiner speaks of the ‘too strong’ moon forces, just before he gives us the fungal remedy of horsetail tea. If, in fact, the horsetail tea application is an opposite process from Moon forces deemed too strong, might it not also be the case of ‘too weak’ lunar forcing when these same Moon forces are too weak? Is it this radical thought that, in 1898, prompted my first use of the technique that I subsequently termed the ‘sequential spray technique’, which proved surprisingly efficacious in ending the conditions we were experiencing at that time, and which, when properly applied has also worked for many others?8 At this time, I would also like to draw attention to the fact that Steiner’s description of the tea uses the term manure in association with the horsetail tea to be used. The early biodynamic practitioner who gives a recipe for a manuring process in conjunction with the horsetail tea is Lily Kolisko in Agriculture of Tomorrow when she suggests that the tea be prepared and then allowed to ferment.9

With respect to the ‘radical thought’ in the preceding paragraph concerning the ‘too weak’ moon forces and the ability of the horsetail herb tea to act in a manner opposite to those moon forces, another of Steiner’s lectures also directly deals with shaping the conclusions I have reached concerning the possible uses of the horsetail herb. Unfortunately, up to this point I have not managed to relocate the exact citation. In the unidentified lecture, Steiner speaks of the influence of comets, and amazingly, identifies comets first of all as a carry-over from the ‘Old Moon’ stage of the Earth’s evolution, and then, in the present stage of Earth’s evolution, as embodying a ‘primal feminine force’ which is the opposite of the ‘primal masculine force’ of the moon. My first reading of this lecture in the fall of 1997 was then immediately prompted by a memory of Steiner’s statements in the Agriculture Course regarding the application of horsetail herb tea as being an opposite process to the too strong moon forces. Therefore, a meal of the horsetail plant juxtaposed with the image of a comet and its periodic return, led me to see the horsetail plant with its leaf structure expressing itself periodically at each node as a visible analogy to the heavenly comet. The fact that the horsetail is also judged to be ‘the most ancient of plants’, specifically served to reinforce its strong relationship to the moon in my mind. Whether the gyrations my thought processes went through to establish this connection among the horsetail herb, the moon, and comets is too much of a stretch is something each one reading this will have to judge for himself. Nevertheless, in claiming such a connection, one must assign a much greater level of importance to the use of the horsetail herb in biodynamic practice. Much of European practice ignores the horsetail herb, and some Europeans have expressed dismay and have even made strong objection to identifying this preparation as BD#508. Among Europeans, only Maria Thun makes frequent suggestions for using the Equisetum arvense in a regular and consistent manner. Those who have attempted to verify her work with lunar and other celestial influences and have failed to arrive at her same results have also likely failed to use Equi- setum arvense in their efforts. Since much of the European attitude towards horsetail is unsympathetic and even downright contemptuous, it is not surprising that it would not have been taken into account in attempting to repeat Maria Thun’s work with the lunar rhythms of Fruit, Root, Flower, and Leaf. However, it is my belief that their failure to do so means that the only forces at play in their biodynamic efforts are those lunar forces that strengthen the earth. It is only when one has used BD#508, thereby ‘taming’ the ‘primal masculine force’ of the moon that the cosmic forces of the other members of the solar system can fully enter into the rhythm of plant growth. For this reason, I would contend that until one begins to incorporate the horsetail herb, Equisetum arvense, or BD#508, into their biodynamic practice on a basis that regards it as equal in importance to any and every other one of the biodynamic preparations, then one is not fully biodynamic, nor will one be able to grow plants that are fully receptive to the forces of all the members of the solar system. Plants grown without due and proper attentiveness to BD#508 will be less receptive to cosmic forces, and will continue to be influenced mostly by the lunar rhythms of new and full moon just as is the case with chemically prepared and organically treated plants that are grown and left with plants out in nature, when support from a full course of biodynamic preparations (including BD#508), is not available. In very simple terms, the horsetail herb serves most essentially to ignite the lunar forces through which the lunar forces operate so strongly. Leaving it out leaves us functioning at a considerably less effective level in our biodynamic practice.

Therefore, I would say that effective weed and other pest control could only begin by using BD#508 in order to ‘switch off’ the Moon (and sometimes to ‘switch on’ as well). When horsetail herb, Equi- setum arvense, has taken its place as a fully acceptable biodynamic prepara- tion, then our efforts at biodynamic growing will be much more fully supported by the cosmos. With a case now made for the value of horsetail herb, Equisetum arvense, as a full fledged biodynamic preparation which fully deserves to be called BD#508, let us now turn to the problem of making and applying a weed pepper. Through the years during which biodynamics has been practiced on the earth, a number of people have worked with the process, but very little has been published on the subject for a variety of reasons, mostly because so few practitioners have taken the time to write about it. In recent years, one biodynamic practitioner and researcher, Maria Thun, has done a considerable bit of work with the ashing process and has published some of her work. Regrettably it has not yet been translated into English, and is available only in German under the title Unkebrand (Pests). A few paragraphs on the subject can be found in her planting calendar Working with the Stars over the last several years, but the data and photograph depicting her work available in Unkebrand have been left out. There also appears a brief reference to dealing with weeds in Maria Thun’s Work on the Land and the Constellations, but it is not of direct practical help in describing the methodology of ashing weeds. One can also find some references to the ashing question in the recently published memoirs of Count Adalbert Keyserlingk, the son of Count Carl Key- serlingk who hosted the Agriculture Course at Kober- witz. One can also find some mention of ashing in Kolisko’s Agriculture of Tomorrow.

In an effort to aid the biodynamic practitioner, I will attempt to describe a detailed methodology of ashing of weeds based on a synthesis gleaned from all of the publi- cations mentioned in the preceding paragraph as well as a few other published references here and there, which I cannot necessarily cite. I would like to start with a lengthy excerpt from Agriculture of Tomorrow since that publication has now been out of print for over fifteen years, and is only and organically treated plants are available, which is not the case on ‘Smallest Entities’, for remedies which are insoluble in water and are potentised with help of a neutral medium like lactic sugar. So we potentised the burn weed seeds, and scatter this potency over the field in which the weeds are growing. Every farmer and gardener can easily make these prepara- tions. They do not cost a single penny, and de- finitely help him to get rid of unwanted plants. When we take a close look at Steiner’s work, we find a number of significant suggestions for combating weeds that go well beyond what is mentioned by Kolisko in the material quoted above. In the first place, Marie Thun found that each particular weed appeared to ger- minate best when the Moon was in a particular constellation, for instance, penny cress (shapati arvense) when the Moon is in Aquarius/Water Bearer, or chickweed
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wherein Steiner speaks of the “too strong” moon forces, just before he gives us the fungal remedy of horsetail tea. 

If, in fact, the horsetail tea application is an opposite process from Moon forces deemed too strong, might it not also be considered growing climbing/growing force when these same Moon forces are too weak? It is this radical thought that, in 1899, prompted my first use of the technique that I subsequently termed the “sequential spray technique”, which proved surprisingly efficacious in ending the poor conditions we were experiencing at that time, and which, when properly applied has also worked for many others. At this time, I would also like to draw attention to the fact that Steiner’s description of the tea uses the term mannure in association with the horsetail tea to be used. The only early biodynamic practitioner who gives a recipe for a manuring process in conjunction with the horsetail tea is Lilly Kolisko in *Agriculture of Tomorrow* when she suggests that the tea be prepared and then allowed to ferment. 

With respect to the ‘radical thought’ in the preceding paragraph concerning the ‘too weak moon forces and the ability of the horsetail herb tea to act in a manner opposite to those moon forces, another of Steiner’s lectures also hints at an unspoken shaping the conclusion I have reached concerning the possible uses of the horsetail herb. Unfortunately, up to this point I have not managed to relocate the exact citation. In the unidentified lecture, Steiner speaks of the influence of comets, and amazingly, identifies comets first of all as a carry-over from the “Old Moon” stage of the Earth’s evolution, and then, in the present stage of Earth’s evolution, as embodying a “primal feminine force” which is the opposite of the “primal masculine force” of the moon. My first reading of this lecture, immediately prompted Steiner immediately prompted memory of Steiner’s statements in the Agriculture Course regarding the application of horsetail herb tea as being an opposite process to the too strong moon forces. 

Then, a mention of the horsetail plant juxtaposed with images of a comet and its periodic return, led me to see the horsetail plant with its leaf structure expressing itself periodically at each node as a visible analogy to the heavenly comet. The fact that the horsetail is also judged to be the most ancient of plants merely served to reinforce its strong relationship to the moon in my mind. Whether the gyrations my thought processes went through to establish this connection among the horsetail herb, the moon, and comets, is too much of a stretch is something each one reading this will have to judge for himself. Nevertheless, in claiming such a connection, one must assign a much greater level of importance to the use of the horsetail herb in biodynamic practice. Much of European practice ignores the horsetail herb, and some Europeans have expressly dismissed and have even made strong objections to identifying this preparation as *Equisetum arvense*. Among Europeans, only Maria Thun makes frequent suggestions for using the *Equisetum arvense* in a regular and consistent manner. Those who have attempted to verify her work with lunar and other celestial influences and have failed to arrive at her same results have also likely failed to use *Equisetum arvense* in their efforts. Since much of the European attitude towards horsetail is unsympathetic and even downright contemptuous, it is not surprising that it would not have been taken into account in attempting to repeat Maria Thun’s work with the lunar rhythms of Fruit, Root, Flower, and Leaf. However, it is my belief that their failure to do so means that the only forces at play in their biodynamic efforts are those lunar forces that strengthen the earthly. It is only when one has used BD#08, thereby taming the ‘primal masculine force’ of the moon that the cosmic forces of the other members of the solar system can fully enter into the rhythm of plant growth. For this reason, I would contend that until one begins to incorporate the horsetail herb, *Equisetum arvense*, or BD#08, into one’s biodynamic practice on a basis that regards it as equal in importance to any and every other one of the biodynamic preparations, then one is not fully biodynamic, nor will one be able to grow plants that are fully receptive to the forces of all the members of the solar system. Plants grown without due and proper attentiveness to BD#08 will be less receptive to cosmic forces, and will continue to be influenced mostly by the lunar rhythms of new and full moon just as is the case with chemically grown plants and organically rotated plants grown in the fields and camping outdoors with plants out in nature, when support from a full course of biodynamic preparations (including BD#08), is not available. In very simple terms, the horsetail herb serves most essentially to integrate the forces of the lunar system, through which the lunar forces operate so strongly. Leaving it out leaves us functioning at a considerably less effective level in our biodynamic practice. Therefore, I would say that effective weed and other pest control could only begin by using BD#08 in order to ‘switch off’ the Moon (and sometimes to ‘switch on’ as well). When horsetail herb, *Equisetum arvense*, has taken its place as a fully acceptable biodynamic prepara- tion, then our efforts at biodynamic growing will be much more fully supported by the cosmos. With a case now made for the value of horsetail herb, *Equisetum arvense*, as a full fledged biodynamic preparation which fully deserves to be called BD#08, let us now turn to the problem of making and applying a weed pepper. Through the years during which biodynamics has been practiced on the earth, a number of people have worked with the process, but very little has been published on the subject for a variety of reasons, mostly because so few practitioners have taken the time to write about it. In recent years, one biodynamic practitioner and researcher, Maria Thun, has done a considerable bit of work with the ashing process and has published some of her work. Regrettably it has not yet been translated into English, and is available only in German under the title Unkraut (Pests). A few paragraphs on the subject can be found in her planting calendar. Working with the Stars over the last several years, but the data and photographs depicting her work available in Unkraut have been left out. There also appears a brief reference to dealing with weeds in Maria Thun’s *Work on the Land and the Constellations*, but it is not of direct practical help in describing the methodology of ashing weeds. One can also find some references to the ashing question in the recently published memoirs of Count Adalbert Keyserlingk, the son of Count Carl Keyserlingk who hosted the Agriculture Course at Koberwitz. One can also find some mention of ashing in Kolisko’s *Agriculture of Tomorrow*. 

In an effort to aid the biodynamic practitioner, I will attempt to describe a detailed methodology of ashing of weeds based on a synthesis gleaned from all of the publications mentioned in the preceding paragraph as well as a few other published references here and there, which I cannot necessarily cite.

I would like to start with a lengthy excerpt from *Agriculture of Tomorrow* since that publication has now been out of print for many years, and organically rotated plants might not be accessible to the majority of our readers at this time:

“We must bring something into the soil that the weeds do not like. It is very simple but effective advice that Rudolf Steiner gives us. The power to reduce undue weed growth is embodied in the seeds. We burn the seeds of those weeds, which we want to restrict in their growth, collect the ash, and scatter it over the field. That is again action of small- est entities. We do not need a great quantity of seeds. The ash radiates out over a large area, counteracting the reproductive force of the seeds contain...”

We carried out experiments, for instance, with seeds of thistles. After two years we still found thistles growing on the spot where we had used the preparation of burnt thistle seeds. The plants looked quite healthy, but when the seeds began to ripen, we noticed that they began to deteriorate. In the third year the thistles were very scarce, and after four years’ treatment they disappeared completely from the treated area.

“Nearly all our experiments with weeds have shown us first the phenomenon of seed-deterioration, and then the plant no longer grew in the treated district. But the whole process takes about four years, and each year the treatment has to be repeated. When we burn the weeds in BD#08 manure, we achieve the same result.”

This again is a very economical and healthy way of disposing of unwanted plants. We do not need chemicals, which damage the soil or poisons to kill the weeds. The most natural thing is done: we combat the plant with the counter force of the same plant.”

In the foregoing, Kolisko has given us the theory or principles behind the concept of ashing. In the next excerpt, headed “Some practical hints for making these preparations,” we are given a brief sketch of how to go about actually doing the ashing process:

“The seeds of all the different weeds we want to get rid of are first collected. Of course, they must be quite ripe. Then they are burnt in the open on a small heap of wood, the remaining ashes are collected (wood ash plus burnt seeds) mixed in a mortar with a pestle or some other suitable tool, and then the ash is scattered over the field. We can also burn the weeds in a flying-pan and get only the ash of the seeds without the burnt wood. In order to distribute the ash over the required area, we take some potting sand, or soil from the field, and rub it together with the burnt seeds very carefully, as for example in Kolisko’s treatise on ‘Smallest Entities’, for remedies which are insoluble in water and are potentised with help of a neutral medium like lactic sugar. So we potentised the burnt seeds with the soil, and scatter this potency over the field in which the weeds growing. Every farmer and gardener can easily make these preparations. They do not cost a single penny, and definitely help him to get rid of unwanted plants.

When we take a close look at what Steiner’s work, we find a number of significant suggestions for combating weeds that go well beyond what is mentioned by Kolisko in the material quoted above. In the first place, Maria Thun found that each particular weed appeared to germinate best when the Moon was in a particular constellation, for instance, penny cress (*shalpi arvense*) when the Moon is in Aquarius/Water Bearer, or chickweed
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when Moon is in Gemini/Twin. It would be important however, for each grower to conduct his/her own experiments inasmuch as each geographic location may have individualized conditions that might cause the Moon's position in these cell Competitions to stimulate a different group of weeds to germinate in different areas of the world. If the grower were able to dedicate an area of land where one could cultivate approximately equal areas, either on a daily basis or, at least within the first few hours when the Moon moved into a new constellation, one could determine the weed germinating relationship to the Moon's position in the constellations for his/her own particular geographic location.

The most helpful discovery made by Maria Thun was that when the soil was worked during periods when the Moon was in Leo/Lion, one had an abundant and varied weed germination; whereas working the soil when the Moon was in Capricorn/Goat resulted in a minimum of weed germination. Thus if one cultivates the soil when the Moon is in Leo/Lion, thereby stimulating many types of weeds to germinate and then follows with another cultivation when the Moon is in Capricorn/Goat, the weed seedlings will be disrupted in their growth and end up considered as a 'green manure' or 'green manure' of sorts. Thun particularly recommends for potatoes and root crops that the last soil preparation and tillage should be done when the Moon is in Capricorn/Goat.

In Maria Thun's work, she found that if only the weed ash itself was used, it was important to apply the ash in accordance with the Moon's constellational position when that particular weed was at its highest germination capability. Thun found that the single most effective step that one could take in using the ashing technique was to 'dry ash' after the ash was collected together. 'Dynamization' is described as grinding the products of the ashing process using a mortar and pestle for a period of one hour. The second most effective step to be taken is to use a homopathic 8-potency as the final product to be sprayed on the area one wishes to treat. Unfortunately, the subject of potentiation and, in particular, arriving at a 8-potency, is too lengthy for inclusion in this issue of Applied Biodynamics and must be reserved for a later article.

An additional weed control technique monitored by Maria Thun involves making a liquid manure of weeds that are not particularly suited for a compost heap, especially those with runners or a creeping habit in their growth. Such weeds as ranunculus, couch grass, thistles, goatweed, cloxfoot, chickweed, and some members of the mint family are better dealt with by using them to make a liquid plant manure. This is accomplished by filling a barrel with water and putting the weeds of this nature in a good quantity into the water. On leaf days it is recommended to stir the liquid for a few minutes. When all the plant matter has completely deteriorated in the water, the resultant liquid can be sprayed when the Moon is in Cancer/Scorpio (the constellational position for the Moon assigned to these weeds by Maria Thun). The area from which the weeds were taken, or where they are not wanted is then sprayed three times. With repeated sprayings, these troublesome weeds will be encouraged to disappear. These particular weeds also promote good growth in cruciferae, cucumbers and tomatoes when applied as a highly diluted liquid manure and can even be poured over a compost pile in order to improve the growth factors for the compost itself.

A further suggestion made by Maria Thun for more effective weed control or rather for prevention of future weed problems is to avoid using products to the soil which are derived from animal substance such as horns, bones, blood, bristles, wool, feathers, or meal from the bodies of animals. All such substances should be composted with manure, or fresh grass, or plant material. These materials originating from the basic substances of animals should only be applied as finished compost in order not to promote weed growth (please note that Demeter standards now prohibit the use of blood and bone meal even in compost).

One final reference as background to consideration of the ashing process comes from a book newly available in English by Count Adalbert Keyserlingk, the son of the host and hostess of the Agriculture course given in their home at Koberwitz. In his memoir titled Developing Biodynamic Agriculture - Reflections on Early Research, Count Keyserlingk describes some of his ashing experiences as follows:

"A whole bucketful of charlock seed was burned for one field experiment. Years earlier I had already established that the seeds must not remain in an incandescent state for long in the ashing process. The temperature had to be kept relatively low so that the incandescent phase was missed out and a brownish ash would settle. It would be a bad idea to use the process on a chicken farm in England and found that the power which is the opposite of the generating power is lost at red heat." 12

This is perhaps a fairly important factor to take into account, inasmuch as so many methods of ashing would quite likely involve reaching an incandescent state rather readily; as for instance burning the seeds in a frying pan lunar, Venusian and Mercurial forces are working in living water and vital earthly substance. Inasmuch as plant matter above ground is largely composed of water and mineral/earthly substance, it is here that these forces can hold sway to the greatest extent. Indeed, it is just in this above ground zone that the reproductive enhancement phenomenon takes place that is the sphere of activity of these planetary bodies. The major part of the reproductive enhancement phenomenon takes place through the lunar forces, which work especially through the element of the living water above the ground.

It is just this reproductive enhancement that is at work when we have a serious weed problem. As Steiner states: "We would get the best stand of weeds if we were simply to let the beneficent Moon have its effect on them and did not hinder it in any way. The weeds would reproduce and multiply, especially in wet years when the lunar forces work best." 53

So, we can conclude that in a wet year, we have a good chance of a more serious weed problem. Steiner then goes on to say that the key to the weed problem is to somehow "prevent the Moon from exerting its influence on the weeds." Interestingly enough, although he makes the strange statement that "we can't simply switch off the Moon," he tells us that we must "treat the soil so that it will become unsuitable for absorbing lunar influences. And not only the soil, but also the plants." 56 What Steiner next describes is the method of ashing the weed seeds, and using the resulting ash to treat the soil so that the plants or weeds will be reluctant to grow in the soil, thus, the ashing process is the means whereby the plants are less able to absorb the lunar forces. Later on in this article, we will cover in much more detail the use of dynamic methods and dynamic influencers for the ashing process and for the treatment of the soil for weed problems. For now, I would like to return to the suggestion by Steiner that we need to treat the soil so that it will be less suitable for absorbing the lunar forces and we will see that the weeds (and possibly other organisms) will be "influenced only from outside by the direct non-lunar forces," as to curb the proliferation of the weeds. Is there, in fact, a way in which we can switch off the lunar forces? I submit that there is such a way and even though it appears that Steiner is making a humorous comment here, in fact, he is preparing us for the method which he will later introduce as one in which we can 'switch off' the too strong Moon forces. It is during unusually wet years when one can expect the lunar forces to be too strong.

So what happens when we have a very seriously wet year, along with other conditions that can cause the lunar forces to be even stronger than normal? Some of those other conditions could be during periods of a Full Moon, when the Moon is at perigee, or when the Moon is in a watery constellation, perhaps with support from other planets (especially Venus or Mercury) in watery constellations. In this instance, the lunar forces begin to work into the mineral/earthly matter of the plant and we have the conditions for fungus and mildew. Steiner's description of this situation is as follows:

"Let us assume, however, that the Moon's influence is too strong, that the soil is overly enlivened. In this case, the vitality works up too strongly from below, and something that should occur only in seed formation starts to happen earlier. When the vitality is too strong, it doesn't reach all the way to the top; its intensity makes it start working lower down. Thus because of the effect of the Moon, there is insufficient force for seed formation. The seed incorporates a kind of dying life into itself, and through this dying life a kind of second ground-level is formed above the level of the soil. Although there is no actual soil up there, the same influences are present. As a result, the seed or upper part of the plant becomes a kind of soil for other organisms. Parasites and all kinds of fungi appear and bights and mildews and the like. What wants to work upward out of the soil is kept from reaching the right height because of the overly strong lunar force. It is remarkable that this happens when the lunar forces are too strong rather than too weak, but that's the way it is. A healthy seed-forming capability is absolutely dependent on the lunar force being normal rather than too weak or too strong, either by reasoning and speculation, rather than perception, might lead to the opposite conclusion, but that would be wrong. Direct perception reveals what I have just described.

The question "Why is it necessary to work upward out of the soil?" and cannot because of the strong lunar forces is the cosmic/silia force which Steiner associates especially with the outer planets Mars, Jupiter and Saturn. Steiner's description for that reason is to use a liquid manure made of a fairly concentrated tea of the hornet's herb, Eupatorium graminifolium, referred to as B8® in some instances. This tea is then further diluted before application and used in a kind of homopathic manner. Steiner describes this herbal tea application as "simply the opposite of the process I described earlier." I take the process described earlier to mean the entire paragraph
Hugh Courtney

Ashing or BD ‘Pepperings’ – A Function of Lunar Forces

In the little understood sixth lecture of Spiritual Foundation for the Renewal of Agriculture, Rudolf Steiner speaks of how the biodynamic farmer or gardener may deal with the subject of pests, be they weed, animal, or insect. In this initial article on the subject, I would like to deal first of all with what I perceive as a prerequisite to working with any of the categories of pests, and for the remainder of this article, I would like to limit my discussion to the handling of weeds only. Subsequent articles will attempt to address insect and animal pests in the specific detail required.

I would like to suggest that no effort at countering pests in any category can be successful to its maximum extent if one does not first pay very close attention to what Steiner says regarding the Moon forces and the means he suggests to counter the impulse of those Moon forces when they are out of balance.

Let us first examine what Steiner says about the Moon’s forces in general. Near the beginning of lecture six, Steiner takes up these forces as follows:

"It is common knowledge that the surface of the Moon reflects the rays of the Sun, directing them back toward the Earth. We see these reflected rays of the Sun because we catch them with our eyes and the Earth catches them too. The rays of the Moon are reflected Sun-rays, but the Moon has imbued them with its own forces, and so they strike the Earth as lunar forces, and have been doing so ever since the Moon separated from the Earth. This lunar force from the Moon has an intensifying effect on everything earthly."  

A few sentences later, Steiner elaborates further:

"As I said before, we usually imagine that the Moon simply takes up the rays of the Sun and reflects them onto the Earth. In other words, when we consider the effects of the Moon, we usually think only of the sunlight. But that is not the only thing that comes toward the Earth. Along with the moonbeam, there is a reflected cosmic force coming toward the Earth. The Moon reflects everything that comes toward it. In a certain sense the whole starry heavens are reflected by the Moon and stream toward the Earth, although you couldn’t prove it by any physical means available at present. It is indeed a very powerful cosmic organizing force that radiates down from the Moon into the plants, so that the covered with a lid and placed in an oven or in a wood burning stove or fireplace, and then leaving them for a long time. Some individuals have claimed that effective results were obtained in such situations when the resultant seeds where essentially turned to charcoal by the ashing process, although the individual seeds did retain their form when the process was completed. (Unfortunately, I cannot locate at this time the reference that supports the preceding sentence.)

First of all, of course, one must harvest the weed seeds. Here, we immediately have the question of whether one must address each individual weed separately or whether one can address a number of problem weeds at the same time. Here at JPI, we have been taking each weed individually because of our fondly held hope that we shall be able eventually to develop a library of various weed peppers which would be available to the biodynamic practitioner whenever the need arose. For most garden and farm situations, however, a common fire for a number of different weed seeds might be the most expedient route to take. In any case, one should gather a goodly number of fully ripe weed seeds. If one is merely treating a large garden area, then a teaspoon or a tablespoon full of each seed may be quite sufficient. On the other hand, for many acres of crop fields, one may wish to have a sizeable bucket full of weed seeds for which control is sought. While there are any number of methods of putting the seeds through the fire, some of which have already been mentioned in the various references quoted above, I will confine my description of the various possibilities to the technique we have employed at JPI for the major part of our ashing experiments.

We use a metal tubular device that is sold through any woodworking store for the purpose of igniting charcoal without using lighter fluid. (See illustration on page 10.) This charcoal starter has a metal platform about one fourth of the way up the tube from the bottom. Since this platform has very large holes in it, which would allow air to enter during the ashing of the weed seeds, we cut a circle of hardware cloth to fit exactly on this platform. We prefer to use hardware cloth of one-eighth inch mesh, although for larger seeds or for ashing other insects as well as most animal skins, one could use hardware cloth of one-quarter inch mesh. On top of the hardware cloth supported by the metal platform, we build a wood fire. The source of wood for this fire is oak bark, since we have a good supply of thick oak bark pieces taken from already timbered trees by someone who was trying to help us out with the oak bark preparation, but who did not realize that we much prefer to take the oak bark from living trees and to take only the outermost bark when harvesting material for this preparation. Any good firewood would also be suitable, but it should be reduced to the size of small kindling. In any case, we build a little tripod of the oak bark chunks on top of the hardware cloth and metal platform; start a fire underneath the platform, using paper, such as newspaper or scrap paper from the office; and then, when a good strong flame is going, we dribble the seeds slowly into the flame. Underneath the circular base of the metal plate, which we have used otherwise for crushing quartz. (See illustration on page 10.) We have also used a very large cast iron skillet sometimes as well. The plate or skillet catches the seeds and wood ash that have passed through the flame and fallen through the hardware cloth and below the metal platform. When everything has cooled sufficiently, we use a small brush to sweep all of the seed and wood ash residue into a metal bowl.

The next step is the one Maria Thun believes is extremely important, that is, the ‘dynamization’ process, in which we use a pestle to thoroughly grind all of the seed and oak bark ash residue together for one hour. At this point, one could choose to distribute the resultant powder directly on the soil of the area for which you are seeking protection. However, because of the small quantity of ash usually available, it may be preferable to take the dynamized ash through a potentiization process (see a future issue of Applied Biodynamics for a detailed description) before spraying or sprinkling it out on the soil. Once the final product for such spraying is determined, one should plan on three or four applications in a row, to be applied even the same day according to Maria Thun. One could also choose those three or four applications on the subsequent days of the preferred constellation in case one is doing only one specific weed. If we do not have a clear certainty of the proper constellation for either burning or application of the ash, I would suggest first of all to select one of a Fire constellation close to Full or New Moon. In keeping with Maria Thun’s findings regarding weed germination, the first choice would seem to be when the Moon is in the constellation Leo/Lion. In any case, such applications should be repeated several times over the four years in order to achieve something approaching 100 percent effectiveness as far as desired results. The second year, the weed(s) in question will show various signs of weakness in growth, will be less likely to set viable seed, and by the fourth year they will essentially cease to be a problem. If this should not be the case, then any number of things could have given the poor results. The most
Staff Departures

At this point, I must regretfully announce the departure of Malcolm and Susan Gardner, due to irreconcilable philosophical differences with respect to how JPI was to be managed, and in particular, what was to be its focus. Malcolm's position was terminated in mid-October 1999, and Susan's employment officially ended on December 31, 1999, although from early November to the end of the year she was on annual and severance leave. A major difference involved their belief that JPI was not properly fulfilling its 501(c)3 role of research and education, was devoting too much time to the production and distribution of the biodynamic preparations and was improperly representing itself as a non-profit entity while engaging in a 'commercial' or even 'industrial' enterprise. Beyond this, although other issues were certainly involved, it is not appropriate to describe any specifics since to do so would violate the confidential nature of a personnel matter. Since it did not serve the interests of JPI to have employees who could not fully support the work of JPI as it has been constituted since it was founded in 1985, it was deemed in the best interests of the organization to terminate their employment. We readily recognize and value the many positive contributions made by both Susan and Malcolm over the three plus years that they have been here, especially Susan's contribution to the office and networking with JPI's customers, and Malcolm's work on the newsletter and his intriguing Steiner-based notion of research. The work of the biodynamic preparations, however, requires that all those engaged in the work pull the wagon in the same direction, and this was not happening in their case.

We wish them both well, and for their many friends and acquaintances, we will provide their forwarding address as soon as available.

Staff Arrivals

There are also several new staff arrivals to report on, some of them dating back to the Spring of 1999. Among new arrivals are: Jennifer Reeve, from Norwich, England; Robert 'Bob' Lehman from North Carolina; Mark Proctor, from Pennsylvania; and Wanda Rakes, from Patrick County, Virginia. In future issues of Applied Biodynamics, we plan to present a 'word portrait' of each of these staff members, hopefully in their own words.

Entering the Deep Part of the Fiscal Ocean

In the Fall of 1999, despite the generosity of a number of people who responded to our appeal last year, JPI found it necessary to borrow $60,000.00 from the Rudolf Steiner Foundation to complete our new building at JPI and to make some other necessary expenditures. Besides the building, those expenses included an investment in new computer equipment (some $8,000.00) and an investment in an inventory of cow horns (approximately $10,000.00). We are pleased to announce that we received our occupancy permit for the new building on February 2, 2000. We are slowly moving from the Courtsey basement into the new building while we continue to complete much special inside cabinetry, rebuild some of the Pfeiffer process equipment and otherwise furnish the various office and work spaces. Your donations will help us greatly to complete this task, pay off our loan, and otherwise continue to fulfill our mission of 'healing the Earth' by providing quality biodynamic preparations for the research and education of numerous biodynamic practitioners, both neophytes and long-term users of our biodynamic preparations who are busy exploring new ways to use the "BD Peeps".

### Biodynamic Preparations Legend

- **bd #500** – Horn Manure
- **bd #501** – Horn Silica
- **bd #502** – Yarrow
- **bd #503** – Chamomile
- **bd #504** – Stinging Nettle
- **bd #505** – Oak Bark
- **bd #506** – Dandelion
- **bd #507** – Valerian
- **bd #508** – Horsetail (Equisetum arvense)

**Compost Preparations**
From the Editorial Desk

This issue of Applied Biodynamics, Number 27, although only seeing the ‘light of day’ in late April 2000 (mailed in May) was supposed to have been published in early Fall 1999. Due to the departure of the previous editor, as well as the legal climate mentioned elsewhere, this issue is more than six months late. For this we apologize, but we expect issue Number 28 to follow ‘hard on the heels’ of Number 27, hopefully to be received by subscribers within sixty days or less after you receive issue 27. The next issue will feature an article by Penny Kelly, author of The Elves of Lily Hill Farm, on the subject of the elemental beings. We will also hope to continue further on the subject of ashing, and plan as well to include a number of book reviews of titles we believe will be of much interest to the biodynamic practitioner. We appreciate your patience as we attempt to overcome our editorial/publicing problems. If this current issue as well as issue Number 28 find favor with you, the reader, we trust that you will renew your subscription for the year 2000. We do firmly commit to resuming a publishing schedule that observes deadlines to a far greater degree in the year 2000 than was achieved in 1999. For this year, we fully expect the reader to receive all three scheduled issues for the year, before the year 2000 is over.

Preparations Making Seminars at JPI in 2000

Please mark your calendars for JPI’s Preparation Making Seminars for the year 2000. Our Spring Seminar—Part I will be held beginning at 8:00 PM on Thursday, June 23, through 6:00 PM on Sunday, June 25. Part I will focus on making Rb#101, Rb#102, Rb#104, and Rb#107, with additional time, as available, examining preparations to be dug up, which could include Rb#102, Rb#102, Rb#103, Rb#105, and Rb#106. The opportunity to directly experience for yourself the making of the biodynamic preparations rather than watch a demonstration of someone else making a preparation is unavailable anywhere else in the country. Cost of the Spring Seminar—Part I, will be $375.00, which includes midday and evening meals for Friday, Saturday, and Sunday during the Seminar.

Our Part II—Fall Seminar, which will feature the harvesting of bovine sheaths will be held from Wednesday, October 25 at 8:00 PM through Sunday, October 29 at 5:00 PM. Cost of the Fall Seminar will be $475.00, which again includes midday and evening meals for Thursday, Friday, Saturday, and Sunday. Attendance at these Seminars is limited, so make your reservation early. A non-refundable deposit of $75.00 will secure your reservation.

Mission

The Josephine Porter Institute for Applied Bio-Dynamics Inc. (JPI), was founded to produce quality biodynamic agricultural preparations based on the spiritual-scientific research of Rudolf Steiner. It serves as a living memorial to Josephine Porter, a pioneer for this work in America. The mission of JPI also includes education and research in biodynamic agriculture. JPI undertakes these tasks so that the earth may be healed.

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Applied Biodynamics

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Notes
2. Ibid., 117.
3. Ibid., 117.
4. Ibid., 116.
5. Ibid., 116.
6. Ibid., 128.
7. Ibid., 128.
8. See Applied Biodynamics, Issues # 6 and #15
10. Ibid., 247.
11. Ibid.