Applied BIODYNAMICS©

Autumn, 2012 *Newsletter of the Josephine Porter Institute • Woolwine, Virginia* Issue No. 78

Chamomile: The Healer for People and Plants

Editor's Note

Dear Readers,

As the days grow shorter, and we see less sunshine, it's nice to meditate on a cheerful, summery plant like chamomile. While working on this issue, I reviewed the passages where Steiner spoke about chamomile during the *Agriculture Course.* I smiled as I read "…this is a lovely thing to do…" (p. 97) as he instructed the attendees on how to harvest the blossoms and stuff them into the cow intestines. But after many years of study, I can claim little understanding of how "chamomile works on calcium in addition to potash, and thereby develops what can help to ward off the harmful effects of fructification, and keep the plants healthy…", why we expose the buried preparation to cosmic-astral forces, or how the end product "stabilizes nitrogen" in compost. (pp. 97–98)

A recent discussion with a friend, older and wiser than I when it comes to studying anthroposophy, gave me hope. He emphasized that much of what Rudolf Steiner offered through his teachings was the introduction of completely new and even radical concepts, so much so, that, "To our modern way of thinking, this all sounds quite insane." Those are Steiner's own words from the *Agriculture Course*! (p. 98) Even if we can't understand them now, through living with these new thoughts, a "place" is formed for us to eventually step into as we continue to practice and strive on our spiritual path, because, as my friend said, we can't see anything for which we do not have a concept. Therefore, as spiritual experiences come to us, we will have the ability to take them in and integrate them in a healthy way due to the fact we have laid a kind of conceptual groundwork. So perhaps what we read, study, and observe is developing something for the future, that we will only be able to understand at a later date, or a later incarnation – but nevertheless, the structure will be there waiting for us when we finally arrive.

Speaking of those who have been studying anthroposophy for many years, thanks to Abby Porter and Cynthia Bowman (JPI's office manager), this issue features a special surprise tribute to JPI's founder and chief preparation maker, Hugh Courtney, who celebrated his 80th birthday on July 8 of this year! Under Hugh's leadership, JPI has set a worldwide production standard in consistency and quality of the biodynamic preparations. Hugh has developed comprehensive trainings, empowering hundreds of people to make their own preparations. In addition, he has carried on the work of Ehrenfried Pfeiffer by continuing to produce the Pfeiffer products which are fantastic for the soil and compost. It is a complete honor and privilege to work with Hugh in an editorial capacity!

Also in the issue, we welcome back artist Erin Coffin, her line drawings bring the written words to life!

May your fall gardens be prosperous,

Christy

Applied Biodynamics

Applied Biodynamics is a quarterly publication of the Josephine Porter Institute for Applied Bio-Dynamics Inc. (JPI). The subscription price of $30.00 per year helps support JPI research and development. Back issues are $7.50 each.

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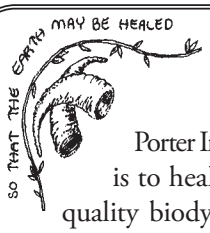


Mission

The mission of the Josephine Porter Institute for Applied Biodynamics, Inc. is to heal the earth through production of quality biodynamic preparations based on the spiritual scientific discoveries of Rudolf Steiner and to advance education and research in biodynamic agriculture.

Chamomile: The Healer

Abby Porter with Hugh Courtney

Chamomile has been used as a healing plant since ancient times. The first record of its medicinal use dates to 1550 BC in Egypt where it was associated with the Sun and the god Ra because it was valued above all other herbs for its healing qualities. The Romans and Greeks used it as well. The name chamomile comes from the Greek word meaning "earth-apple" and refers to the apple-like fragrance of the plant. For the Celts, it was a sacred herb given to them by the god Woden. During the Middle Ages, it was an ingredient in some love potions due to its sedative and relaxing properties.

Today, chamomile is one of the most widely used herbs, and is used most frequently for digestive disorders, and to promote relaxation and sleep. In the book by Beatrix Potter, even Peter Rabbit was put to bed with a cup of chamomile tea after eating too much in Mr. McGregor's garden. It is good for "head-gut" problems, easing anxiety, which can cause stomach ulcers and intestinal distress, as well as alleviating headaches caused by digestive disturbances. It is used for fevers, pain, inflammations of all sorts, as well as for melancholy. Skin irritations and wounds are also helped by topical applications of the tea. Chamomile is antibacterial, antifungal, anti-inflammatory, antispasmodic, anti-ulcer, anti-viral, and has sedative effects. In homeopathic medicine, *chamomilla* is used to treat patients who are peevish, impatient, angry, intolerant, excitable, whining, changeable and restless. It is frequently used as a children's remedy for colic, teething and insomnia.

Plants benefit from chamomile as well. It is known as the "plant doctor" because it improves the health of plants growing near it. Chamomile improves the flavor of cabbage, onions and cucumber and increases the strength of aromatics that are gown for their use in essential oils. If planted next to an ailing plant, it is said to revive it. Chamomile tea sprayed on seedlings can prevent damping off. The tea can also be used as a plant food and as a tonic for disease.

Roman chamomile (left), German chamomile (right). All photos courtesy of Abby Porter.

The two most common species of chamomile are *Matricaria chamomilla* or German chamomile and *Chamaemelum nobile* or Roman chamomile (previously classified as *Anthemis nobilis*). Both species have been used throughout history to treat the same ailments. About one third of their chemical constituents are the same and the plants are similar in appearance.

Roman chamomile is a low growing perennial. Its leaves are thicker and closer together, and the smell and taste are sharper than the German. The flowers look like small daisies with the white petals flat or angled slightly upward. The yellow cone is solid inside.

German chamomile is an annual, which self-seeds and can grow two feet tall. The leaves are spread out, much airier than the Roman, and have a pleasant smell. The blossoms are usually smaller with the white petals tilting down and away from the yellow cone, which is hollow inside. German chamomile is most widely available as dried blossoms and is the most researched of the two for its medicinal properties. It is also the species that Rudolf Steiner chose for one of the biodynamic compost preparations.

Making the Chamomile Preparation at JPI

AP: *Hugh, please share with us the process of how the chamomile compost preparation (BD #503) is made at JPI.*
HC: First, one needs to source the materials required: chamomile blossoms and bovine intestines.

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
} Compost Preparations

BD #508 – Horsetail (*Equisetum arvense*)

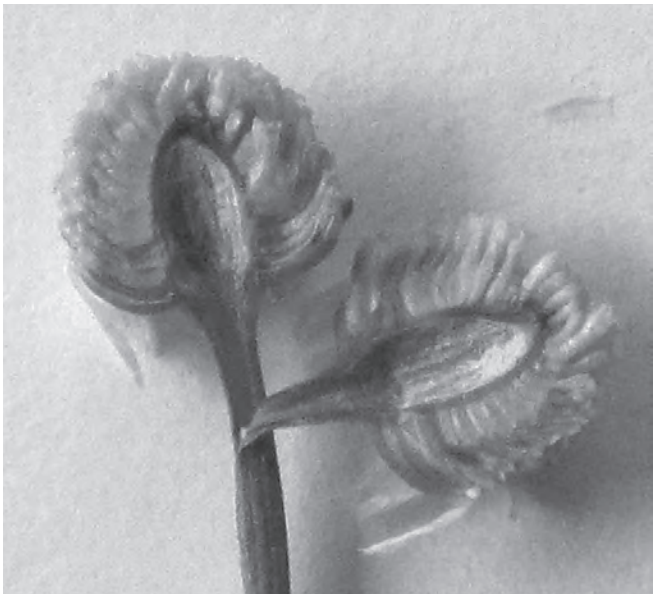
Harvest and Preparation of the Blossoms

HC: It is important that you have the right variety of chamomile, which is referred to as *Chamomilla officinalis, Matricaria chamomilla, Matricaria recutita,* or German chamomile. German chamomile is the term most commonly used in biodynamic circles. In the discussion following lecture six in the *Agriculture Course,* Steiner, in answer to questions regarding which chamomile to use, responds that it is the one that grows wild along side the road or railroad tracks with the white petals turning *downwards* away from the yellow cone center. He differentiates this from the variety commonly grown in gardens at that time – most likely Roman chamomile, which he said, was useless for this purpose. A sure way to tell if you have the right variety is to slice the yellow cone in half vertically. The variety to use will have a hollow center. The other varieties will have a solid center.

Only the flower head is picked. The blossoms are then dried on a non-metallic screen in a warm airy place away from direct sunlight. After they are dried, they are stored in a cool place and vacuum-sealed, frozen, or in someway protected, to avoid insect damage. When picking them in the wild, one would want to make sure that no chemicals have been applied to the land or close by and that the plants have not been exposed to exhaust fumes from traffic.

We do not have enough chamomile growing here on the farm to supply JPI's needs which are 30 to 50 pounds of dried blossoms annually. In addition to blossoms generously sent to us by biodynamic practitioners around the country, we order the blossoms from reliable herb companies, making sure that they are human food grade, organic or wild harvested, and definitely not irradiated, as most imported herbs are these days. For an individual or a small farm, a couple of boxes of bulk tea would suffice. Sometimes health food stores sell bulk herbs, which would be a more cost effective way to purchase the blossoms, if one did not need very much. A whole pound of dried blossoms would be enough to stuff around six or more 9-inch long pieces of intestines, depending on how tightly they are stuffed. That would make over 100 units of preparation, plenty to treat manure on a larger farm [one unit treats 10 tons or more of manure]. At JPI we like to produce not less than 4 to 5 gallons of finished preparation, which takes about 30 pounds of dried blossoms. One cow will supply around 130–140 feet of small intestines, enough for this amount, depending of course on how tightly the intestines are stuffed.

The dried blossoms must be moistened before they are stuffed into the intestines. This is done by taking a few of the blossoms and making a chamomile tea to moisten



Crosscut of German chamomile (left), Roman chamomile (below). Note the hollow core of the German chamomile blossom.

"The preparation No. 503 is of special interest because it is made from chamomile. This plant contains a growth hormone which is a particular stimulant for the growth of yeast. The remarkable thing about this growth hormone is that it works in very high dilutions.... chamomile juice is active at its best in a dilution of 1 to 8 million."[1]

—Ehrenfried Pfeiffer

"Now you must trace, for example, the process which chamomile undergoes in the human and animal organism, when taken as food or medicine. The bladder is comparatively unimportant for what the chamomile must undergo in the human or animal organism. In this case, the substance of the intestinal walls is far more important…"[2] *[referring to why intestines were chosen as sheath]*

—Rudolf Steiner

them. Wait until the tea has cooled down a bit and is no longer scalding before pouring onto the dried blossoms that you have placed in a large bowl. It can be hot but not so hot that it would burn you or take the life out of the blossoms. You want them moist enough so that they stuff easily into the intestines, somewhat the consistency of thick oatmeal but not so wet that you can squeeze any water out. If they are too dry, stem ends may puncture the intestines. And if there were any long stems, you would want to cut them off before you moistened them. One to two cups of tea would moisten a pound of blossoms. You want to add the tea slowly and incrementally as you blend. If you get them too wet, just add some more dried blossoms until you reach the right consistency.

Harvesting the Intestines

AP: *What is the procedure for harvesting the intestines once the cow is sacrificed on the farm?*

HC: Before we separate the innards from the cow, we tie off the rectum and the esophagus so that the digestive contents and manure do not spill out over everything. Rather than cutting the abdominal sack down the middle and letting the contents fall out, our butcher skillfully separates the peritoneal tissue from the sides of the carcass so that the whole abdominal or peritoneal sack can be removed intact, still containing the abdominal organs. The gall bladder is removed first so the bile doesn't contaminate the meat or the rest of the organs.

Once the sack is removed, we move it to a clean area so we can separate out the intestines, stomachs, mesentery, peritoneum and other organs. The first step is to separate the intestines from the stomachs and identify the parts that you want to use. The small intestines will be attached to the Isles of Mesenteria, which holds them all together. The large intestines will be darker in color and harder to excise from the other mesenterial tissue holding them together. If you were making only a small amount of preparations, the pinkish part of the small intestine would be the preferred. Steiner's direction was to use the part that is used to make sausages for human consumption. We use all of the intestines, small and large, for the quantity of preparations needed at JPI.

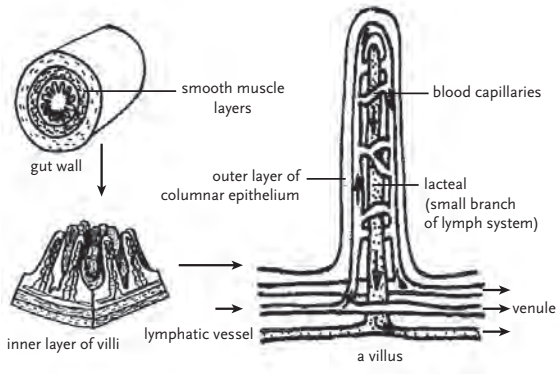
With a sharp knife or razor blade, make an incision in the mesentery to carefully separate it from the intestines. Leave some of the mesenterial tissue attached to the intestines so you do not get too close and puncture the intestines. Decide where you are going to make your cut across the intestines. Before you cut through the intestine, tie a string around both sides of where the cut will be. This is to prevent the contents of the intestines from leaking out everywhere when you make the cut. Proceed to separate a manageable

Separating the small intestines from the Isles of Mesenteria.

Small intestines have been almost all removed; what is left is large intestines and the Isles of Mesenteria, the fatty tissue at bottom of photo.

length (5 to 6 feet) of intestine from the mesentery, always staying a good half inch or so away from the intestinal wall to avoid weakening it or puncturing it. Once you have separated the desired amount, make two tie offs again before you cut off this section. Continue to repeat these steps until you have the amount of intestines needed.

The next step is to *gently* clean the food contents from the intestines. Undo one of the string tie offs and put that end of the intestines into a bucket and loosely squeeze the contents out. Remove the string from the opposite end, insert the nozzle of a hose and run a quart or two of water through the intestines, just a quick flush. You only want to remove the rough food contents to make room for the chamomile. You do not want to remove all the chyme (liquefied and digested foods, hormones, bacteria, enzymes, bile and other digestive juices) that is on and between all the thousands of finger-like projections or folds called villi that line the interior wall of the intestines. These villi greatly increase the interior surface area of the intestines, some sources say by up to 600 times. The residual chyme contributes to the transformation of the chamomile and the characteristics of the final preparation. You definitely would not want to clean out the intestines as thoroughly as you would if you were making sausages for human consumption.



Anatomy and physiology of the cow's wall of small intestine showing villi. Drawing by drawing by Ruth Lawson, Otago Polytechnic.

Some practitioners in Switzerland prefer to use the *caecum* (cecum) which is the beginning of the large intestines. It is a pouch with only one opening, which connects the small intestines to the ascending colon of the large intestines. The appendix is attached to it. It would be an interesting research project to analyze the various parts of the intestines for enzymes, yeasts, hormones, bacteria, and such, to see what, if any, difference there might be and then test the resulting preparations made from these parts.

The intestines should be stuffed as soon after slaughter as possible. If you are unable to stuff them within three days, they should be frozen until used. When we have to freeze them, we put them in a large plastic food freezer bag with enough water to cover them and seal the air out. With the water surrounding them, the tissue does not break down and become freezer burned. If you do not freeze them, the digestive process continues and the decay process starts very quickly. They will get very stinky, putrid, and unpleasant to work with after the second day, even kept in the refrigerator underwater. The decay process also weakens the wall of the intestines making them difficult to stuff tightly. If you are obtaining the intestines from a butcher, you would want to pick them up the same day as slaughter, take them home, separate them from the mesentery, clean them gently and either use them right away or freeze them. (We freeze the deer bladders this way as well, in a plastic bag or in a yogurt container, always covering with water, until we accumulate a supply and have the time to inflate them to dry.)

Stuffing the Intestines

AP: *How do you prepare the intestines for stuffing?*
HC: First, moisten the blossoms as I previously described. Then cut the intestines into 9-inch long sections and remove the fat. Keep the rest of intestines in a bowl of water until you are ready to use them so they don't dry out. The fatty tissue must be removed from the side of the intestine. There are a couple ways to do this but it generally works better to do this with a razor blade before they are stuffed. The 9-inch section is then spread out flat across a cutting board with the white fatty mesentery tissue stretched away from the intestine. The razor blade is then used very carefully to scrape and cut away all this fatty tissue without

Fatty tissue attached to the side of the intestine.

The fatty tissue has been separated from the intestine.

removing intestinal tissue or cutting through the wall. If we do not remove this fatty tissue, a little grub worm about a half inch long will show up in the finished preparation. At the annual JPI fall workshop, which is hands on, everyone gets gloves, a wooden cutting board, a razor, and one or more intestine sections to stuff.

AP: *At the workshop, I was trying to do a good job to get all of the fatty part off. When I was stuffing, I discovered I had taken off too much tissue, which resulted in a thin, weak area. I wasn't able to stuff the rest of the sausage as tightly without breaking through. Some other people did get holes and they had to stop stuffing, ending up with a much shorter sausage.*

HC: An alternative way to remove the fat, is to stuff the sausage and let it dry for a couple days. Then you can rub or peel the fat off. One still needs to remove at least an inch of the fat from both ends before stuffing because you can't get to it when the ends are closed off.

Next, the one end of the intestine is tied off with a string and the other end is opened up to stuff the blossoms in. Some years ago, we found some sausage stuffing funnels with a wide opening. Unfortunately they are no longer available, and other funnels we have tried are too narrow. Anyway, we insert the end of the funnel into the intestine and push the chamomile, which has been adequately moistened, through the funnel with a dowel. The blossoms are worked down to the bottom of the intestine tube and packed in tightly with your thumbs. When you have stuffed up to about an inch or less away from the top, one side of the open end intestine is folded over the blossoms. The other side is then folded over the first and all the edges are pressed down tightly. This will seal the end closed and you don't need to tie it shut with a string.

Stuffed chamomile "sausages" ready to be buried.

AP: *My mother usually stuffed longer lengths of intestines. Is there a reason that you cut the intestines into 9-inch lengths?*

HC: It is harder to get the chamomile into a longer tube and harder to get it packed tightly. Given Steiner's suggestion for packing the manure more tightly in horns, hammering it in, to make it more effective for the American continent, I have applied that insight to the other preparations as well; the chamomile, dandelion and yarrow.

Burying the Preparation

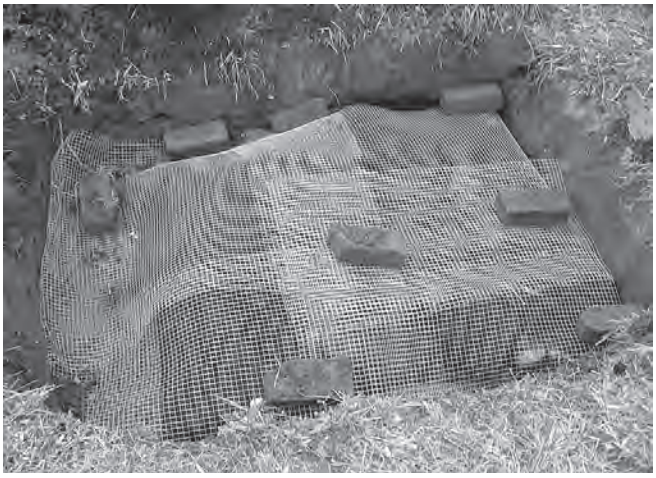
AP: *Is the chamomile buried the same way as the dandelion?*

HC: Yes, it is buried in a pit 12–18 inches deep. Our

You use these airy, flying-away forces, the scent which wants to go away from the earth, and you bring it into the most earthly, destructive surrounding, the wall of the intestines.… In these "sausages" which you have made, the calcium processes are brought together. The exhalation process of camomile is necessary so that the central and centralized forces of calcium can really be brought to the compost heap and from there to the soil. You catch the "desire of calcium" and you surround it by that which contains our earthly nutrition stream and destroys it. These you expose during winter to the cosmic summer forces under the soil."[3]

—Karl Koenig

The pit is lined with a wire mesh.



Stuffed chamomile "sausages" are safely covered with wire mesh before being covered with soil and buried for the winter.

pits are about 14–15 inches deep. You want to stay in the fertile layer of the soil. We line the pit with half-inch mesh hardware cloth (galvanized steel) that is big enough to fold over from two sides to cover the sausages. We frequently use two pieces placed on top of each other, at right angles, so we can fold them over from all four sides. Next we put in about a half-inch of peat moss to prevent the metal from touching the fiberglass screening. We place fiberglass screening over that, again using a large enough piece that can be folded over from all sides. The sausages are placed on the screening. We arrange them in concentric circles or a spiral, starting in the center. The screening is folded over to make a package, making it easier to retrieve the finished preparation without losing any precious material. Another layer of about 2 inches peat moss is put in over the fiberglass screen before folding the hardware cloth over the top. The hardware cloth prevents animals from digging up the preparations and also prevents shovel damage to the screen and preparations when you dig them up in the following year. This method of protecting the sausages is advisable. You would be amazed at the number of people who call me up, desperate because the fox ate their chamomile or dandelion or a dog dug it up or alternatively, they can't find it. The pit needs to be clearly marked so you can find it in the spring as well.

AP: *Is there a preferred location for burying the chamomile?*

HC: Steiner does say to choose a location where the snow will remain for a long time and where the sun will shine on the snow. Given this part of Virginia, we often don't have very much snow. When we do get a decent amount of snow, somebody goes down to the pit and shovels some more snow on top. This is to make sure there is plenty of winter snow water melt that seeps down into the pit. If you have winter rain, you will get winter moisture. The snow, being exposed to the sun for several days, will collect sun and other cosmic forces. This is not what happens when it rains.

AP: *So the people in southern locations or in the tropics are out of luck?*

HC: I'm hopeful that the winter rains would help compensate for that. The sun is stronger closer to the equator so maybe that would suffice, especially if it rained during the daytime. Steiner gave the agriculture lectures to farmers in Europe where there was snow. He didn't live long enough to give advice for other locations. His eight lectures were hints and beginning indications. He encouraged farmers to experiment, observe, and research.

AP: *When are the chamomile sausages buried and how long do they stay in the ground?*

HC: Steiner only says for them to be in the earth throughout the winter, when the earth is most inwardly alive. I prefer to get them in the ground before Advent (at least four Sundays before Christmas). I have observed the resulting preparation to be of better quality if it is buried before Advent. If you are farther north, you may want to get them in the ground much earlier, before it snows and before the ground freezes.

We usually keep them in the ground about six months. Sometimes, it comes down to getting to it when you can get to it. I prefer to wait at least until Ascension Day (thirty-nine days after Easter Sunday) before digging up any of the preparations. We have chamomile buried in two pits, side by side. This year we dug up one in late spring. The other one will be dug up at the fall workshop so participants can experience the unearthing as well as the burial. They can observe, smell, feel, the chamomile before it goes into the earth as well as when it comes out of the earth, transformed by its time in the intestine, exposed to the cosmic winter forces.

AP: *Are the intestines still evident when they are dug up?*

HC: There is generally some intestinal tissue still in evidence, but usually you cannot pick up a whole sausage intact.

AP: *What are the next steps, after they are removed from the earth?*

"Add them to the manure…. You will thus get a manure with a more stable nitrogen-content, and with the added virtue of kindling the life in the earth, so that the earth itself will have a wonderfully stimulating effect on the plant-growth. Above all you will create more healthy plants – really more healthy…"[4]

—Rudolf Steiner

HC: We gently lift the screen, containing the chamomile preparation, out of the ground and put it into a tray to transport it to the work area. There, we crumble up the sausages and gently rub them through a ¼-inch mesh screen to attain a consistent texture. The screening process also separates out the strings that were used to tie off the intestines and any pieces of intestinal tissue that have not decomposed.

In the finished preparation, the blossoms will be completely transformed to a dark humus-like material, no longer identifiable as chamomile. If the blossoms are still evident and not broken down, several pieces of the intestinal tissue that were just screened out can be placed in the crock with the preparation. The intestinal forces will continue to radiate into the material and continue the breakdown process. Once or twice, several years ago we had to do this, as the chamomile was not broken down as completely as it should have been.

Storage

AP: *How are the preparations stored?*

HC: The preferred storage container is a glazed ceramic crock with a loose fitting lid of ceramic, slate, or glass. A glass container may also be used. The crock is placed in a lidded, wooden box and is surrounded on all sides, including the bottom, by at least 3 inches of granular peat moss. A pillowcase or feed sack can be filled with the peat moss to create a pillow to insulate the top of the crock. The peat insulation serves to keep the radiating forces of the preparations contained in the crock so they don't dissipate and also to help prevent adverse radiations from penetrating into the preparations.

The finished preparation is unearthed.

I have to recommend that you do not put all of your preparations in the same box. I have found that if you do, somehow, the other preparations seem to affect both the chamomile and the dandelion. They will dissipate, just disappear. The chamomile and the dandelion preparation each need to have their own separate box. I keep all of the preparations in their own boxes now.

The preparations should be checked at least monthly to insure that the moisture content is stable, and that no critters are getting into the preparations or mice are nesting in the peat moss.

Effects of the Preparation

AP: *What is the effect of BD #503 on the compost pile, the earth and plants?*

HC: The chamomile preparation is related to the earthly nutrition stream and strengthens the life body of an organism, be that organism a plant, the compost pile, or the earth. With its association with limestone or calcium, it helps stabilize the nitrogen in the compost pile and helps the soil and plant absorb more nitrogen from the atmosphere. Both chamomile and the intestines are connected to Mercury, which is always in motion, creating chaos and lacking form. This is the polarity of Jupiter, the silica process, and BD #506 (dandelion) which creates order, form and structure. The outer planets bring in the cosmic nutrition stream, and the inner planets enhance the earthly or more physical nutrition stream. The relationship of Mercury to chamomile is best explained by C.B.J. Lievegood in the pamphlet, *The Working of the Planets and the Life Processes in Man and Earth.* (See sidebar, page 10.)

AP: *Have you experimented with using the chamomile preparation by itself on plants?*

HC: I can't say that I have. Other than stuffing sausages, which is a lot of fun really, I haven't been as drawn to chamomile as I have to some of the other preparations – oak bark in particular, and yarrow. Recently, someone called

"Chamomile, however, assimilates calcium in addition (to potash). Therewith, it assimilates that which can chiefly help to exclude from the plant those harmful effects of fructification, thus keeping the plant in a healthy condition."[5]

—Rudolf Steiner

who has a problem with cocklebur weevil infesting his dahlias. The weevil lays eggs and the larvae burrow into the stem of the plant. It came to me that the situation calls for the earthly nutrition stream to be strengthened. So I suggested that he stir and spray the chamomile preparation along with milk and honey. He had used all of the preparations already, so I was looking for something specific. We'll see what happens.

Steiner speaks of the harmful effects of fructification being countered by chamomile and its relationship to calcium. I have taken this to mean that if the ripening processes were too excessive or occurring too early they would be harmful. This would be the case with corn smut, for instance. If earthly forces are not strong enough and the cosmic are too strong going up the plant, you have to bring in a counter force with the earthly influence of the chamomile preparation.

Mercury

Opposite to Jupiter stand the Mercury forces. Where Jupiter gives rise to harmony and order, Mercury creates chaos, though not an ordinary one, but one, which we might call a 'sensitive chaos': movement without direction, but ready to flow into anything which might be suggested from the outside. Mercury is streaming movement, adapting itself to any resistance it may find… The one thing Mercury never abandons is movement, in this streaming and flowing.

Mercury is active in the Camomile Preparation 503 which stimulates plant growth through potassium and calcium. The treatment with the intestines intensifies the Mercury activity…

Even today Camomile is widely used in medicine, mainly so in the whole region of mucous membranes. Wherever there is inflammation, i.e. where chaos prevails, where mucus and pus are produced, Camomile soothes, deodorizes, cleanses. The main sphere of application, however, is the intestines.

We see that Camomile in the first place has a strong effect upon the intestines, secondly, it brings what is congested…into motion.

Lievegood, C.B.J., *The Working of the Planets and the Life Processes in Man and Earth* (Broome Farm, Clent, Stourbridge, Worcs. 1951), pp. 8, 9, 25–26.

AP: *Would the early bolting of leafy plants be an example of too much cosmic influence, bolting before there is very much leaf growth?*

HC: That can happen. Ideally, everything needs to be in balance and harmony so that these forces work in the plant the right way. To counter bolting , one would build up the earthly forces which would be through the application of BD #500 for sure, and possibly yarrow and certainly chamomile. They would all strengthen the earthly.

You have to find avenues to stimulate both the cosmic and the earthly nutritional streams. The cosmic nutrition stream, which is basically silica and the forces from the outer planets, come into the earth and impact silica rock deep in the earth. These forces radiate or flow back up through the earth into the plant to carry the silica forces into seed formation. The opposite of this is the chamomile, which strengthens the compost so that the earth will be more alive, so that the life force of the earth can also come up into the plant. By stimulating both these forces with the preparations we help the earth to be more alive which results in healthier plants.

AP: *Is there anything you would like to add?*

HC: The cosmic and earthly nutrition streams are key to solving the riddle of the *Agriculture Course.* Steiner repeatedly talks about polarity. Understanding what each of the preparations is doing, in relation to either the cosmic or earthly nutrition stream, is crucial to understanding the whole *Agriculture Course,* I think. It's a big mystery, and I'm still wrestling with it.

AP: *Thank you, Hugh.*

Notes

1) Ehrenfried Pfeiffer, *Pfeiffer's Introduction to Biodynamics,* (Floris Books, 2011), pp. 30–31. From articles first published in 1948 and 1956 by the Biodynamic Farming and Gardening Association.
2) Rudolf Steiner, *Agriculture,* Lecture Five, (Rudolf Steiner Press, 1958, 2011), Adams translation, p.94.
3) Karl Koenig, *Earth and Man* (Bio-Dynamic Literature, 1982), p. 304.
4) Steiner, *Agriculture,* p.94.
5) Steiner, *Agriculture,* p.94.

Happy Birthday to Hugh!
A Milestone for Hugh Courtney and JPI

Abby Porter

On July 8, 2012, Hugh Courtney quietly celebrated his eightieth birthday in Woolwine, Virginia. It was twenty-eight years ago, in 1984, that Hugh agreed to continue Josephine Porter's (my mother) work with the biodynamic preparations. He made a commitment to make and supply them to biodynamic farmers and gardeners who were unable or unwilling to make them for themselves, both in the US and around the world. In 1985, Hugh founded the Josephine Porter Institute for Applied Biodynamics (JPI) in Virginia, as an educational and research non-profit organization. He named it in memory of my mother's dedication and her twenty-eight years of service to the biodynamic preparations work.

Hugh Courtney's accomplishments at JPI with the preparations work have been truly extraordinary. I am sure my mother would be amazed by all of his achievements, knowing of the many benefits that the biodynamic preparations bring to ecological agriculture and to the earth. Under Hugh's direction, JPI has provided on-site education and training to hundreds of people wanting to learn how to make the preparations. Additionally, through his presentations at conferences, Hugh has shared his knowledge about the preparations with thousands of people. It is estimated that the use of the preparations in North America has increased twenty-fold or more since JPI was founded. Through Hugh's efforts, JPI has grown to the point where it is no longer possible for one person to oversee and manage all the activities and tasks. That is success! The dramatically increased use of the preparations in various parts of the country indicates the need to form and support regional JPI branches and affiliates to insure that the biodynamic preparations and allied products will always be available, despite any adverse economic, weather related, or regulatory conditions.

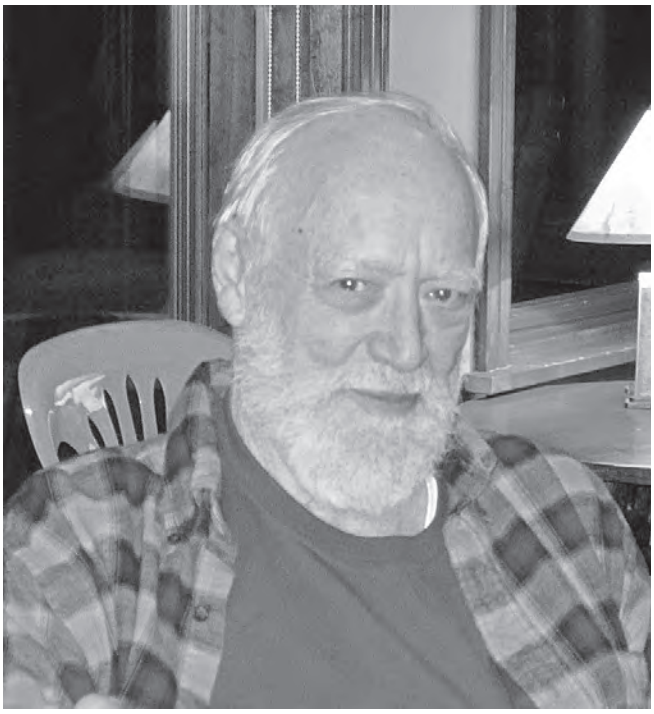
Hugh's first contact with biodynamics, as he describes it, was in 1975 when he was in a bookstore and Steiner's *Agriculture Course* literally fell off the shelf in front of him. Once he read the book, he knew it was something he wanted to learn more about. He realized the preparations were the key and making them was the next necessary step.

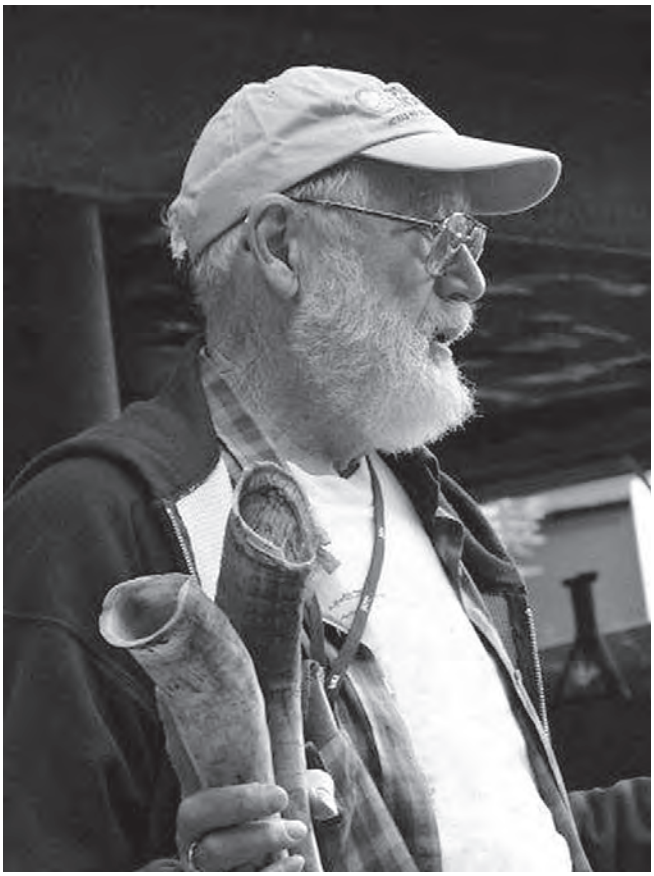
The following summer, he attended the annual Bio-Dynamic Conference in Spring Valley, New York. There he met Josephine Porter, Biodynamic Farming and Gardening Association (BDA) board member, biodynamic preparation maker and national supplier. Hugh signed up to learn from my mother and traveled to her farm in Stroudsburg, Pennsylvania that fall, for what was to become a seven-year apprenticeship. A few times each year, he went to the farm for a couple days to a week or more, to learn and help make the preparations.

In 1978, Hugh and his new wife, Liz, along with Hugh's parents purchased the farm in Woolwine, Virginia. After a career in the Navy and a second career as a public librarian, Hugh and Liz looked forward to a quiet retirement with plenty of time and money for pleasure travel. Hugh planned to write, rehabilitate the apple and peach orchards with the biodynamic preparations that he was learning to make, and be a gentleman farmer, of sorts. His ambition was to resurrect biodynamic tree paste in the biodynamic community. Liz, with her artistic talent and cooking interests, planned to become involved in the local cultural community. Little did they know, what that book falling off the shelf would bring them!

After a couple years, Hugh realized the peach trees were too old and stressed to be rehabilitated. At this point he also realized that he needed to get some of his own cows to properly make the preparations and not depend on the neighbor's cow manure or sheaths of questionable quality. He started fencing, and in 1981 he brought in the first cattle, enabling him to make more of the preparations with materials from his own farm.

In 1984, my mother was in the hospital for the second





time in two years and was lucidly planning for her passing. On Friday she had the Christian Community priest come up from Philadelphia to give her last rites. On Saturday, she called into the BDA Board meeting in Spring Valley to offer her last suggestions for future direction of the Association. She felt that biodynamics and the preparations should be presented on a scientific basis in the way Dr. Ehrenfried Pfeiffer had presented the results from the use of the preparations and biodynamic practices. On Sunday, I asked my mother if she thought Hugh Courtney would continue her work with the preparations. "Yes," she responded, she thought he would. Monday, she checked herself out of the hospital and appeared back at home in an ambulance before I had a chance to pick her up. Thursday morning she passed quietly, surrounded by family, friends and farm helpers. I called Hugh to let him know of her passing and what she had said. His response was that he did not feel prepared, that he wasn't ready yet. After conferring with Liz, and ready or not, Hugh did accept the challenge and the responsibility.

Hugh, not only continued my mother's work, he also added more products to JPI's initial offerings, including Maria Thun's barrel compost (now called Biodynamic Compound Preparation), the Three Kings and other Hugo Erbe preparations. He implemented an educational newsletter and hands-on prep making workshops throughout the year. In 1992, Hugh introduced the CSA-type arrangement for purchasing the biodynamic preparations: the JPI Associative Contract, which ensures delivery of preparations in the spring and fall, includes a discount on the price of the preparations, and on the newsletter, with prepayment by March.

Following Steiner's advice in the *Agriculture Course* to research and investigate, Hugh has developed new products and new uses for the preparations. Using Maria Thun's methodology, Hugh developed pre-potentized versions of BD #500 and BD #501 that require only twenty minutes of stirring. Amelioration of drought or excessive rain was successful by experimenting with use of all nine of the preparations in a specific sequence (Sequential Spraying technique – see *Applied Biodynamics,* No. 6). He has also experimented with using various preparations individually as seed soaks and sprays to increase yield and promote health. He continues to make pest "peppers" for experimental use in reducing pest populations and damage. The most recent being a "pepper" from nutria (a large, invasive rodent from Peru, raised for its fur) to try to reduce the population and damage that these animals are doing to the marshes and levees in and around New Orleans.

In 1995, when the Pfeiffer Foundation could no longer continue its operation in Spring Valley, Hugh successfully negotiated a licensing agreement for JPI to continue producing the Pfeiffer Compost Starter and The Pfeiffer Field and Garden Spray. He moved the equipment to JPI and a building was started to provide the additional space that was needed. After completing a five-year trial period and successfully producing the products, the Pfeiffer Foundation transferred the proprietary rights to the Pfeiffer products to JPI. JPI continues to produce these products developed by Dr. Pfeiffer for large-scale composting and field operations. They have proven to be one of the easiest ways to introduce biodynamics to backyard gardeners as well as to larger farming operations.

In December of 1999, Hugh decided it was time for him to retire and asked the JPI board of directors to begin a search for a new executive director. It was his hope that in two years, when he was 70 years old he would be able to resign and get back to his initial plans to write. His wife's catastrophic car accident in 1996 was a major reason for this decision as well. She continued to need more operations as a consequence of the accident and Hugh needed and wanted to spend more time with her. The medical problems from her accident continued until her passing in 2007.

Earlier, in 2000, prompted by Hugh's desire to retire and his concern for how JPI would be carrying the preparation

work into the future, Harald Hoven and Charles Burkham of the BDA met with Hugh in Woolwine. As a result, a committee was set up to address the future of the preparation work in America. The focus of the committee, among other things, was to find ways to foster the growth of regional preparation making groups and to support central preparation making facilities to be located in the east, west and central parts of the country as well as Canada. The Future of the Preparations Meetings grew out of this committee and met for the first time the following spring in Copake, New York. The meetings continue annually in different locations and are now named The Fellowship of Preparation Makers Conference.

It is twelve years later, and JPI has gone through a series of ups and downs, and traumatic events. The organization has grown stronger, experiencing substantial growth in both workshop attendance and preparation sales. Hugh has spent the last sixteen years, first caring for his wife and then cooking and caring for his parents until their deaths in 2009 and 2011. Hugh's mother lived to be 98, and his father passed away just a few weeks shy of his 103rd birthday. All the while, Hugh was overseeing activities at JPI, teaching at the workshops and conferences, and ensuring that preparations continued to be available. That Hugh has survived the vicissitudes and challenges, faced by JPI, and in his personal life, over the past twenty-eight years, is testament to his strong physical constitution, his strong will, and his optimism.

I am very grateful that Hugh accepted the serious responsibility of continuing my mother's work with the preparations. We can be glad and appreciate Hugh Courtney's dedication to healing the earth through the use of the biodynamic preparations. We are all fortunate to benefit from the abundance of good work that he has done so well.

Thank you, Hugh.

Further Appreciations

All of the success at JPI would not have been possible without dedicated associates and staff to assist Hugh in his mission. Here is what some of them have to say about their time at JPI and their association with Hugh Courtney.

Florence Rewinski, who worked at JPI from 2005–2009 and continues to teach at the Annual JPI Fall Workshop and assist at the JPI conference booth, adds:
"The 'wow' I felt working with Hugh at JPI was and is, the vast amount of lives that have been touched by this Man through the work done with the preparations. A week never went by without a new farmer, gardener, or vineyard calling and asking about biodynamics. Hugh always found the time to answer my simple to complex questions as well. Thanks Hugh for taking a chance on me."

Joey and Natalie Brinkley both worked full time at JPI from 2006–2007. Joey worked there on and off from 2002–2005. They are continuing to make the preparations in California, from where they write:
"Hugh, you have been, and continue to be, a foundation and guiding light on our biodynamic journey. Thank you so very much for all your love, time, and energy for these anthroposophical endeavors from which humanity grows. And for teaching us how to play dominoes on New Years Eve!"

The current staff at JPI – Cynthia (Sid) Bowman, Larry Mabe, Carolyn Hanchey, Kendell Cockram, and Cristalle Maye – note that:
"Hugh is such an extraordinary man with an abundance of knowledge. The knowledge he has about biodynamics is over the top. We so enjoy working and learning from Hugh on a daily basis. Hugh has such a big heart and a very kind soul. He is a truly amazing person and we are blessed to have him in our life."

Brian Wickert, a long-time associate and colleague with the Fellowship of Preparation Makers, sends the following:
"I would write a book as a tribute to Hugh if I had the time to do it justice… When the Fellowship of the Prep makers met in Viroqua, Wisconsin a few years ago, the people who had been making the preparations the longest were asked to share their prep making experiences. Ruth Zinniker had been making them the longest and Hugh Courtney was among the next four or five most experienced. When the group was asked who had used the preparations from JPI and Hugh Courtney, the only ones who had not, were the people newly introduced to BD who were getting theirs from their local group. It was evident, at that moment, to everyone in that room, that biodynamic preparations would not be as available to everyone, if it had not been for Hugh Courtney. His dedication to the biodynamic preparations is unsurpassed."

Lloyd Nelson, longtime friend of JPI, preparation maker, and former JPI employee, writes:
I would like to thank Hugh Courtney for his inspiration, guidance and mentorship. Over the past fifteen years, he has shared with me his deep-rooted wisdom and understanding of and dedication to the practical aspects as well as the spiritual significance of making and using the biodynamic preparations. I am eternally grateful for the biodynamic wisdom he has passed on to me and countless others "so that the Earth may be healed."

Send your birthday greetings to Hugh in the form of a tax deductible donation to JPI – help to ensure the important work continues!

JPI Welcomes Mark Ellenbogen to the Board of Directors

JPI's newest board member, Mark Ellenbogen, was introduced to biodynamics through a fortuitous meeting. About twenty years ago while attending the mega-trade fair "VinItaly," he happened to go by the Austrian pavilion where Christine Saahs from Nikolaihof Wachau was pouring her wines. The wines were truly revelatory and they all had an odd cardboard collar with the orange international Demeter logo, so he asked the proprietor a bit more about her estate. Mrs. Saahs explained that she rigorously followed biodynamic principles timing cultural operations according to celestial and lunar cycles. As Mark tasted more European wines farmed using this method, he found they possessed an indefinable quality of clarity and sapidity. After graduating from University of California, Davis with a bachelor of science degree in fermentation science, Mark went to Italy in 1976 to attend the graduate program in viticulture and enology at the University of Turin. While he was there, he grew Barbera wine grapes near Asti and then he worked as a copywriter for many wineries and artisan food producers. Returning to the US from Italy in 1994, he worked briefly for an Italian wine importer and then began to buy wine for restaurants, creating wine lists that included many organic and biodynamic wines. Wine director of the famed Slanted Door restaurant for fifteen years, he went on to create two lists devoted entirely to organic and biodynamic wines: Camino in Oakland and Bar Agricole in San Francisco. Mark's interest in biodynamics grew and he attended the yearlong program in biodynamic agriculture at Rudolf Steiner College in Fair Oaks, California. From this class and the BDANC meetings he attended, he began to see the possibilities of creating a network of biodynamic food purveyors for restaurants committed to serving organic and biodynamic food and beverages. At Bar Agricole, a restaurant in San Francisco, he had the opportunity to put his ideas into practice and he developed a close relationship with Adam Gaska and Paula Manalo's Mendocino Organics located on the Golden family's Heart Arrow ranch in Ukiah, California. Mark is also on the board of the Demeter Biodynamic Trade Association and plans to help JPI with its website, social media, communications and fundraising.

Queen of the Sun: What are the Bees Telling Us?

A Review by Abby Porter

Queen of the Sun is an exquisitely filmed documentary on the plight of the honeybee. It was directed by Taggart Siegel who also directed *The Real Dirt on Farmer John.* The film features biodynamic farmer, educator, author and beekeeper, Gunther Hauk of Spikenard Farm and Honeybee Sanctuary in Floyd, Virginia. Michael Pollan, author of *The Omnivore's Dilemma,* and Indian activist and physicist Vandana Shiva also make appearances. Close-ups of flowers and bees filling the whole screen make this film not only dramatic but a feast for the eyes.

Colony collapse of the honeybee is the consequence of many years of humanity's separation from nature and natural systems, and the loss of the knowledge that all life is interconnected. Monoculture, GMOs, and pesticides, as well as artificially inseminating the queens, feeding bees high fructose corn syrup and antibiotics, and transporting bees thousands of miles have all served to weaken the life force of the bee community. Transporting bees in from Maine and Australia to pollinate the 600,000 acres of almonds grown in California is not sustainable. Are the bees our canary in the coal mine?

What differentiates *Queen of the Sun* from other documentaries about the decline of the honeybees is that it presents solutions and shows the heartfelt and close relationship that sustainable beekeepers have with their bees. Beekeepers from around the world express their love for the once sacred bee. This film is inspirational as well as educational, offering solutions that anyone can contribute to, from planting flowers that provide food for bees to getting your own hives. At least one of my friends now has her own bees as the result of seeing this film. And I can't imagine that many people will continue to eat commercial mass produced honey after learning how the bees are treated.

This film is suitable for all ages, making it the perfect family Christmas or anytime gift. The DVD is now available at JPI for $25 plus shipping and handling.

Visit www.jpibiodynamics.org for

Catalog of Biodynamic Preparations
Pfeiffer Products
Books and Back issues of *Applied Biodynamics*
Upcoming Events at JPI
Sign up for the JPI e-News!

Other Holiday Gift Ideas from JPI!

- A subscription to *Applied Biodynamics,* $30 for a one-year subscription
- The *Stella Natura 2013 Biodynamic Planting Calendar,* Sherry Wildfeuer, ed., $14.95
- *North American Biodynamic Sowing and Planting Calendar 2013,* by Maria and Matthias Thun, $13.95
- *Bees,* by Rudolf Steiner, $25
- A unit of the Three Kings Preparation, $37.00.

Prices do not include shipping and handling. Call JPI or visit www.jpibiodynamics.org for ordering info.

Thank You for the Blossoms

Thank you for harvesting dandelion blossoms and other plant materials used to make the preparations! Would you like to harvest dandelion or other preparation materials for JPI? If so, contact JPI for details on how to harvest.

Laura Boram – Clinton, WA
Frieda Lankford – Collinsville, VA
Martha Loving – Shelburne, VT
Mary Lee Plum-Mentjes – Anchorage, AK (valerian, yarrow and horsetail)
Florence Rewinski – Hampton Bays, NY
Karen Von Gontard – Paonia, CO (dandelion and valerian)

Save the Date!

Events at JPI

October 31–November 4, 2012: Annual Fall Workshop
Experience harvesting of sheaths and making the biodynamic preparations. Five days of hands-on workshops and lectures, with guest speaker Brian Wickert from Viroqua, Wisconsin. Cost is $600; meals are included. Some housing available, tenting permitted. Contact JPI for details or to register.

December 1, 2012, 9:30 am until 4:30 pm: Making Horn Manure (BD #500) Preparation
Lunch will be served. No fee for this day of good conversation and good energy.

December 25–26, 2012, 10:00 pm until 4:00 am: Animal Pests Ashing Workshop – Venus in Scorpio/ Moon in Taurus
Meal is included in the price. Cost is $85.00

December 29, 2012, 9:30 am until 3:30 pm: Animal Pests Ashing Workshop – Venus at the High Conjunction of Scorpio
Lunch is included in the price. Cost is $85.00

Horn Silica (BD #501) unearthed at the fall workshop.

Other Events

November 15–18, 2012: Annual Biodynamic Farming and Gardening Conference in Madison, Wisconsin
Featuring keynote speakers Charles Eisenstein and Dennis Klocek. Hugh Courtney and Lloyd Nelson will be giving presentations on the Nine Biodynamic Preparations. Contact www.biodynamics.com for complete information.

December 6–8, 2012: ACRES USA Conference in Louisville, Kentucky
JPI Booth for biodynamic preparations and publications.

February 28–March 3, 2013: Twelfth Annual Fellowship of Preparation Makers Conference in Fall Creek, Oregon
The theme will be preparations BD #502 and BD #507. More details coming soon.

"In the absorption of food, the forces developed by the body are the essential thing. Thus it depends on the receiving of proper food, whether or not the animal develops sufficient forces to be able to receive and assimilate the substances from the atmosphere.... The food is there to stretch the organism, so to speak, thus enabling it to receive all the more from the atmosphere."

Rudolf Steiner – *Agriculture*, p. 106 (Adams translation)

SO THAT THE EARTH MAY BE HEALED
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