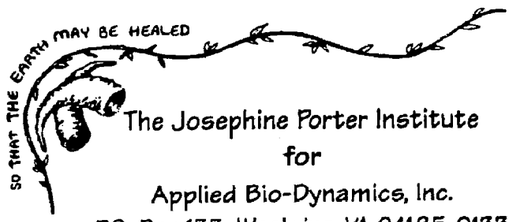
There is no other choice. Today, no less than in ancient times, we are in need of knowledge that can really enter into the inner workings of nature.

— RUDOLPH STEINER, *SPIRITUAL FOUNDATONS FOR THE RENEWAL OF AGRICULTURE*
Bio-Dynamic Farming and Gardening Association, Kimberton, PA, 1993
trans. by C.E. Creeger and M. Gardner, 1993, p. 40.



The Josephine Porter Institute
for
Applied Bio-Dynamics, Inc.
P.O. Box 133, Woolwine, VA 24185-0133

Printed on
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SPRING 1996 *A Quarterly Publication of the Josephine Porter Institute • Woolwine, Virginia* ISSUE Nº 15

POKEBERRY AND PINE SEED SPRAYS

BY SARA TUFTS

What do pokeberries and pine seeds have in common?

SLUGS DON'T LIKE THEM!

I have used a pokeberry ferment spray for two years with wonderful results. I grow day lilies and slugs love to eat them, so by using the spray I have been able to really control slugs on the flowers. The large gray slug[1] (3-4 inches) prompted my first efforts to begin a pokeberry juice spray project. I began in 1993, when Hugh Courtney offered interested gardeners a chance to experiment with the juice, using 1 cup in 2½ gallons of water, which was stirred for 20 minutes and then sprayed on plants, soil and all possible hiding places, you name it! After a few evening sprays, the slugs were leaving many of their favorite plants.

During the summer of 1994, the little black slug[2] became a worry, and I began a more detailed spray program. Hugh suggested adding a spray of BD#501, Horn Silica for light force enhancement. Slugs do not like light (sunshine) and tend to do most of their damage at night, in the early morning, or on foggy or rainy days. So, I added BD#501 at the rate of ¼ teaspoon to the pokeberry juice ferment to create a combination spray. I then chose an area of flowers as a control and left them unsprayed. On another area of small day lilies, one of the slugs' favorite, I sprayed the new combination. While the unsprayed flowers still had "visitors," the specially sprayed flowers were slug free.

During this past summer of 1995, I decided to do some research on the pine seed spray Rudolf Steiner suggested.[3] I also took suggestions from page 251 of the book *Agriculture of Tomorrow* by Lilly and Eugene Kolisko where slugs and the pine seed extract are mentioned. The seed chosen by Lilly Kolisko originally was *picea excelsa* (apparently a Himalayan spruce). Since this was a seed not easy to obtain here in the United States, I decided to use the more readily available *picea abies*, Norway Spruce seeds. Three grams of crushed seeds were placed in 1,000cc (approximately 1 quart) of water and allowed to ferment for 14 days. One cup of the fermented extract was added to 2½ gallons of water stirred for 20 minutes and then sprayed on the soil and plants needing protection from slugs. Results can only be regarded as favorable in my use of this pine seed concoction.



Since pokeberry is considered poisonous, it is advised for use only with ornamentals, with the pine seed extract suggested for use on vegetable gardens. I hope vegetable gardeners will give the pine seed spray a try. For my flowers, I now combine pine seed, pokeberry ferment and BD#501 as my official **SLUG AWAY SPRAY**.

This year, I plan to start the **SLUG AWAY SPRAY** early (February-March) just to get ahead of the spring rush. A word of caution, even after you notice the slugs are leaving your flowers and vegetables alone, you should still spray every now and then to keep the uninvited sign up and the **SLUGS AWAY!**

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Notes on this Issue

By Hugh J. Courtney

For this issue we have as guest Editor, Kathryn Dagostino, who introduces herself in an adjacent article. It should be pointed out that she is in no way responsible for the delay in publication of this Issue, since that is essentially my sole responsibility. The reader should understand that while we regret the delay in publication of this issue, we do not apologize for that delay. We have a major primary focus here on the production and distribution of the preparations, and a significant *current* secondary focus on the construction of a building to house our production. To place the publication of *Applied Biodynamics* ahead of these tasks would be to ignore our mission, so I trust the reader will fully understand why this Spring issue for 1996 comes out after Spring is well under way.

Many of you receiving this issue are reminded that your subscription actually expired with the previous issue. We hope that you will renew when this issue arrives, as we realize that many of you probably have hesitated to do so given the uncertainty of future publication mentioned in that previous issue. Your renewal encouragement will make future publication a greater certainty, and we could use the funds from renewal to cover publication costs.

A "Hello!" from the Guest Editor

By Kathryn Dagostino

My introduction to Biodynamics was only a year ago when I was assigned to write an article about it. "Do you know what biodynamic gardening is?" my editor asked. "Uh, I think it's a kind of organic gardening, maybe with raised beds?" I answered uncertainly. I had the feeling at that time that this "could lead to something," but I had no idea what.

As I researched for the biodynamic article, my interest and excitement grew. The principles and practices of biodynamics fit right in with my commitment to soil and water conservation, organic gardening, developing a co-creative relationship with the land and my own spiritual growth. As an aspiring entrepreneur, I felt that growing biodynamically would give me an edge in the market in terms of quality, beauty and keeping qualities.

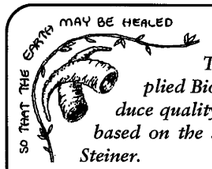
Last year I used Barrel Compost and BD#500 and BD#501 in my garden and started a compost pile with the Pfeiffer BD Compost Starter. My husband and I are in the process of building a house and developing a farm on 2.5 acres in Nelson County, at the foot of the Blue Ridge Mountains near Charlottesville, Virginia. Consequently, I haven't invested much time and attention to, or observation of the garden and the effect of the preparations. And since the garden is located on the farm and not where we are living, most of the garden with the exception of tomatoes and peppers fed the resident wildlife. I did notice, though, how quickly soil quality improved in response to the preparations. Initially, we were only able to break ground with the tractor's front end loader. With the addition of organic matter, then spraying with Barrel Compost and BD#500, the soil seemed to respond instantaneously by turning a fluffy dark brown, soft and easy to plant.

Even with my limited experience, I am committed to biodynamics as a way to heal the earth and grow life- and spirit-enhancing produce and flowers. After we move to the farm, which we plan for summer of '96, I will work intensively with the preparations in growing market vegetables, nuts and flowers. I feel that this editorship is my way of serving JPI and of getting the opportunity to immerse myself in biodynamics as a way of life while I am in the process of becoming a full-time biodynamic practitioner.

I am very excited about becoming part of the biodynamic community and taking my first steps toward what I hope will be a long and mutually beneficial relationship with JPI and biodynamics.

Welcome Back, Erin!

We welcome back in this issue, Erin Coffin, whose art work has graced previous issues of Applied Biodynamics. We were concerned that the loss of services of staff from Cranberry Creek Community also meant the loss of Erin's services as artist for our quarterly publication. As it turned out she was interested in continuing a relationship with JPI, and we are pleased that she rejoins Applied Biodynamics.



MISSION

The Josephine Porter Institute for Applied Bio-Dynamics, Inc., 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 biodynamic 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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Editor
Josephine Porter Institute for Applied Bio-Dynamics, Inc.
P.O. Box 133
Woolwine, Virginia 24185-0133
(540) 930-2463
The subscription price of $35/yr. helps subsidize JPI research and development.

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 PREPS

BD #508 – Horsetail (Equisetum arvense)

house had the worst soil imaginable — a river-washed gravel bed cemented together by heavy, grey clay. In winter the water table was only inches below the surface and often above it, and in summer the whole thing would bake into a rock-hard surface you could not penetrate with a spade. Tilling was possible a short time in spring when the moisture was just so: if you missed it, tough luck, and if you did it too soon, you had to deal with hard lumps all season long.

She had taken out the huge walnut tree that shaded the backyard when she moved there, but its presence lingered. Nevertheless, she planted several fruit trees, among them a peach, which she tended with loving care and Hugh Williams' book advice. There were also grapes, figs, artichokes, Kiwi and a rampant raspberry patch whose fruit she shared with friends, neighbors and strangers. In the last years, my husband and I did a lot of the heavier work like tilling, pruning and later, planting. But it would not be spring if Mildred did not have her little greenhouse going, lovingly tending little green shoots — forever hopeful for the gift of a new season. She even planted a new persimmon tree just before her ninetieth birthday. Compost she made in a bin, adding layer on layer mixed with the Pfeiffer compost starter, while she removed finished compost below. At her son's farm she had huge piles of cow manure and bedding with preparations in them in various stages of decomposition; she always kept the bins for composting kitchen garbage and garden refuse. You would be greeted by the strong smell of fermenting nettle tea when stepping on her back porch, and valerian bloomed abundantly under her bedroom window.

As her health became more and more fragile, a committee of Quaker and non-Quaker friends, in consultation with her two sons, took turns to take Mildred shopping, to Sunday meeting, and to doctors' appointments and generally made sure that her needs were met.

I think of Mildred in gratitude for all she has done in her pioneering and independent way. I owe to her my introduction to biodynamics and many, many other stern and loving ways she set my thinking straight. I hope that some day I will be able to make good for all I have received from her.

Heike Eubanks

(in charge of preparations for the Oregon Biodynamic Group)

Mildred Cowger was a gardener. A really good gardener. She cultivated quality. To partake of a meal from her garden was a treat. At an early meeting of the Oregon BD Group at her home she offered us the first fruits of some of her cherry tomatoes. There were only enough for each of us to have one. As I popped mine into my mouth, I was immediately overwhelmed by the flavor. I knew at once the value of the seeds and spit them into my napkin. At that time my wife and I had a small greenhouse business, and raising tomato starts was our specialty. Over the next few years, from propagating plants from those few seeds, we grew and sold thousands of Mildred's cherry tomatoes. This was the story of Mildred's life. Through her simple generosity she sowed many seeds in the lives of many people.

Biodynamics was central in her life. Immediately outside her sliding glass doors were her small greenhouse and her large garden. On the opposite side, right against her house, is where she had the bee man place her hives. Inside the smells were often of freshly baked bread, and against one wall was her extensive collection of Biodynamic literature, which she made available to anyone who was the least bit interested. She grew food not only for herself but for her son's family as well. She was proud to have been feeding biodynamically-grown food since the day they were born. I remember when her granddaughter went off to college, she continued to make sure that she was well-supplied with food.

For many years, Mildred kept planting the seeds of biodynamics. They were slow-germinating seeds, but finally in the mid-70s what was to become the core group of the Oregon Biodynamic Chapter began to meet, frequently at her home. The group remained small but touched the lives of many who came and went. Mildred's role in the group was becoming established. She was the revered pioneer, the one with decades of practical wisdom, the one whose presence provided constancy. Several years before her passing, the Oregon Chapter began to experience a groundswell of committed members. Ask almost any one of them who led them to biodynamics and they will tell you, "Mildred."

In her later years Mildred discovered Anthroposophy. We all sensed a profound change in her relation to life. She was far more at ease, more accepting of the time it took to affect change; she was at peace with herself. To me, Mildred's crowning moment came when she, now quite old, managed to come to our farm for the unburying of the preparations. Like the great-grandmother at a family reunion, she was able to look upon her offspring as several dozen of them carried on her work. She passed on before the Chapter put on its first annual conference, but I'm sure she was there, and I don't think she was surprised as over a hundred people packed the weekend conference.

I remember her telling me once as she raised her hands in a "V" above her head, "When I stir the preparations I feel I am connected to the whole cosmos." Mildred, indeed you are.

Wali Via,

President, Oregon Biodynamic Group



Mildred Cowger (Jean Kessel in background)

Mildred Cowger: A Life of Service

There are many people who have contributed enormously to the sustainability of biodynamic work in the twentieth century and who are almost unknown. Mildred Cowger was one of those people.

For decades, she was the only person in Oregon doing biodynamics. Evelyn Gregg and her husband Richard moved here and kept her company in that endeavor for a time, but by and large, Mildred was alone, and she had more than enough strength to take up the task of meeting stranger after stranger and introducing them to biodynamics and Anthroposophy, all the while maintaining an exemplary garden, which finally won her a second place in the National Victory Garden contest.

She was absolutely remarkable. At age seventy, she was in correspondence with people all over the country who sent her seeds; she would go to Quaker retreats, sleep on the floor, and cook huge meals for everybody (often with her own produce) so that people could see for themselves what biodynamic food was really like; and she kept in touch with her Congressmen and state representatives on a multitude of issues. Even when her health was failing (at about age ninety) and it was clear she couldn't live by herself anymore, while she was in the very act of moving out, she kept a world map on her kitchen wall so that she could discuss issues of human rights with anybody who came into the house. After a heart attack, when she had failed considerably, Jean Kessel brought her to our winter biodynamic meeting. She could barely speak. She fell asleep in the midst of our business meeting, which continued to go on around her, and it seemed absolutely right to have her there. We miss her, but she taught us a great deal.

The following are memories of Mildred from two members of the Oregon Biodynamic Group.

Beth Wieting

A beautiful spring Sunday morning in the early 80's — sun shining through fresh green unfolding in the branches of large stately trees, what was I doing inside, sitting in a circle of silence with a handful of people?

Sunday morning worship of the Salem Quaker Meeting, a new experience for me. Unused to quiet meditation, my eyes kept resting on seemingly oversized Birkenstocks strapped to fragile ankles. A plain cotton dress revealed the suntanned, wrinkled arms of an octogenarian. Face focused, eyes closed — everything topped by a curly, gray wig.

I soon came to know Mildred much more intimately, came to realize how her small frame was permeated by a will power that met you very directly. She was engaged in several peace and social justice issues, with a special focus on the suffering people in Central America and the US-sponsored wars there. She would attend meetings, write letters to Congress and to elected officials, and was one of the faithful who for years did a peace vigil in downtown Salem, holding signs like "Let Peace Prevail" or "Peace and Justice in Central America," while disinterested shoppers streamed by and an occasional person would verbally accost us. Quite a portion of her meager Social Security check went to support the work and to help the beleaguered people of Central America.

But Mildred was not a one-issue person. Soon I found out about her commitment to Steiner's philosophy and to biodynamic gardening. She had arranged her life to conform to her beliefs. She lived in great simplicity, rejecting commercialism and over consumption; mending clothes rather than throwing out and buying new; recycling, making do with resources at hand, even to the extreme of refusing to do housecleaning because she thought it to be time-consuming and nonproductive. Her little red Volkswagen Beetle was ancient, and I think, when she finally had to give up driving, she still sold it at a profit.

She was born in rural Illinois. Her father was a homeopathic doctor who had to give up his practice, like numerous homeopathic physicians at that time, when the new medical practice laws were pushed through Congress by the AMA. She was one in a family of many children, and being female, a college education was out of sight. Nevertheless, she managed, through scholarships and the sponsorship of a rich family in Chicago, to get her degree. Before she came to Oregon, she had lived in California, raising her two sons, Justin and Wright, after a divorce. There she was also active in the co-op and health food movements. Her famous recipe for refrigerator rolls dated back to those times. She would make these luscious rolls for almost all Quaker potlucks and for her friends on many occasions. She even gave them as a gift to her doctor whenever I took her for her appointments. I believe she got very special treatment from him; in fact, he was always available and personally concerned when I had to call him for any of Mildred's emergencies.

I was trying to grow a garden then on a one-half acre city lot with poisoned and worn out soil which had previously been a cherry orchard. Of course I had all kinds of problems. So I asked Mildred what to do about this insect, that wilt, or why my squash was not coming up. So she gave me some BD#500 and instructed me to stir it for an hour and spray it. Of course I thought she was crazy, but knowing Mildred, I gave it a try. Soon I learned to make some decent compost instead of the slimy mess I had before, and lo and behold, things started to improve.

For further study of biodynamics and Anthroposophy I was able to use Mildred's extensive library. Before long I was helping her to make the preps. I remember that nice fall day she called me up and asked if I would like to help her scrape a mesentery. Soon I was sitting on her airy back porch in the shade of the hardy kiwi vine she had planted, and I watched her gnarly old hands knead and push the tallow gently and scrape it out with the back of a paring knife from between the two delicate membranes. For the intestines we prepared camomile blossoms, which were in a tea package bought from a special supplier for this occasion. Little did I know how many gallons of these dainty flowers I would pick for prep-making in the years ahead.

Despite her advancing age and health problems, Mildred never gave up gardening. The little backyard of her Salem

Slugs and Snails and Pokeberry Jails

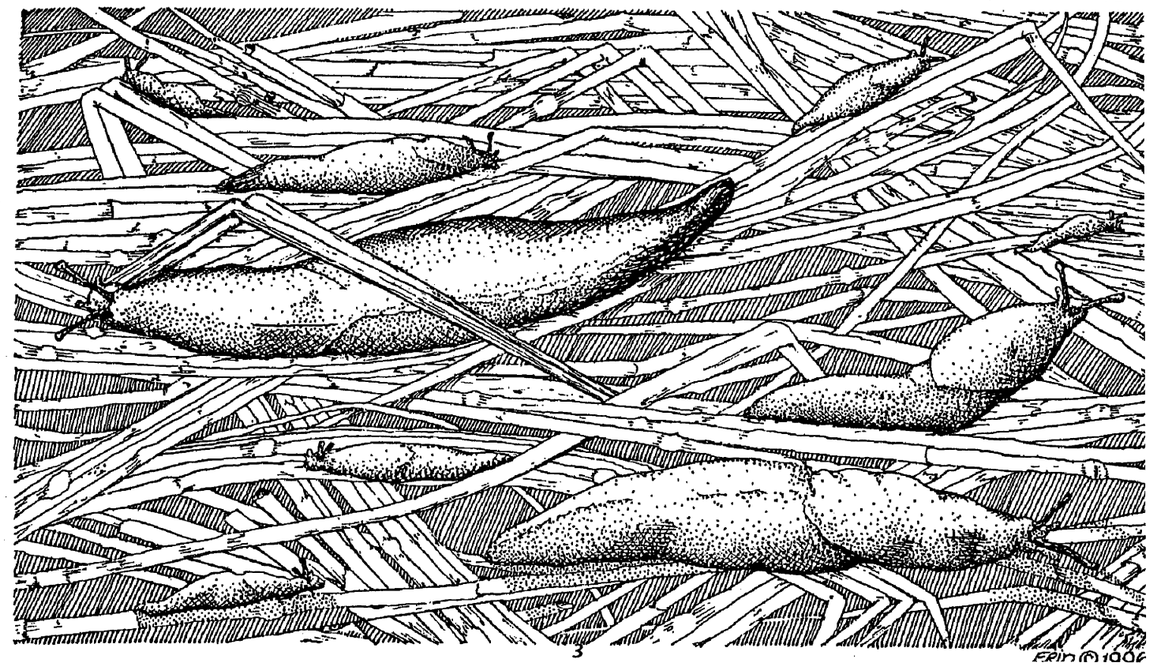
By Hugh J. Courtney

The accompanying article by Sara Tufts mentions two avenues for combating snails and slugs, one being the pokeberry juice spray and the other the pine seed tea suggested by Rudolf Steiner. I would like to examine each of these in turn and will start first with the pokeberry juice spray and how it came about that I suggested it to her to counter the slugs and snails which were decimating her day lilies. I will examine as well those qualities and characteristics of the pokeweed plant (*Phytolacca Americana* or *phytolacca decandra)* that suggest why it might be suitable for use against snails and slugs.

The possibility that pokeberries might be useful to counter the invasion of slugs or snails was first brought to my attention by Walter Goldstein of Michael Fields Institute in East Troy, Wisconsin in March of 1992. JPI was serving as the host for a Board of Directors meeting for the Bio-Dynamic Farming and Gardening Association, since a major portion of that meeting was concerned with the future of the preparations work. (That meeting culminated in the decision to remove the preparations production and distribution as a function of the BDF&G Association and place it entirely under the auspices of JPI.) Walter was present in conjunction with a meeting of the research committee of the BDF&G and asked me if I had any pokeweed around the farm, since he had recently heard that pokeberry juice might be a deterrent for slugs and snails. Walter's interest in pokeweed had been stimulated by the research of Lawrence Hills of the Henry Doubleday Research organization in England. It seems that for some time Mr. Hills had been working with pokeweed as a controlling agent for slugs. Unfortunately, I have only recently learned from Walter Goldstein the source that had prompted his interest in pokeweed. As a result, I have not yet had the opportunity to examine the results of the prior research on pokeweed done at the Henry Doubleday Research organization, but I will be looking into it in the near future if at all possible.

As a result of serendipity or coincidence, it seemed that I could not only furnish Walter Goldstein with some poke root for transplanting, but also with some pokeberry juice as well for his experimentation. It just so happened, that the year before, because of my own personal fascination with this particular plant, I had harvested quite a few of the berries and extracted the juice as a potential future "biodynamic" preparation. The pokeberry plant and "Joe Pye weed" or "Queen of the Meadow" had occupied my attention for quite a while as possible candidates for replacement plants for one or more of the biodynamic preparations. I had for some time been concerned about the difficulty I had experienced in growing

JAILS cont. on pg. 4



JAILS cont. from pg. 3

valerian in the hot and humid summer climate of southern Virginia where Woolwine is located. The valerian plant (*valeriana officianalis)*, used for making BD #507, is much more susceptible to fungal and crown rot problems in areas south of the Mason-Dixon line than it is in such regions as New England. There it is so well adjusted that it has attained the stature of an invasive weed in some places.

At this point, it appeared that what had become over the years a favorite plant of mine was worth paying even more attention to, so that Spring and Summer of 1992, I made sure that a serious harvest of pokeberries for extracting juice was made a priority. In the Spring 1993 issue of *Applied Biodynamics* a brief note (See Figure 1)announcing the availability of pokeberry juice as a possible antidote for snails and slugs was published. During the 1993 season, several individuals, including Sara Tufts, did contact JPI to try out this potential remedy. No positive responses were heard from the several people who tried this, other than Sara Tufts. Months later, when attempting to follow up what results, good, bad, or indifferent anyone had obtained, two or three different people reported they could notice no effects that would bear out the possibility that the pokeberry juice could provide a remedy against snails or slugs. All of these individuals were from the West Coast, specifically from California and Oregon. My thought was that the snail and slug population out there might be much more robust than any snails or slugs that might have been vanquished by poke juice heretofore. I did, however, hear from Sara Tufts that she was able to observe that the pokeberry juice did inhibit slug damage to her day lilies,as she indicates in her article. Since her success, I have heard from two other West Coast growers, who have noticed a beneficial result in so far as reduced slug and snail damage is concerned. One is Paul Sansone, a very competent flower grower in Oregon who reported that a spraying of pokeberry juice early in the season on the soil seems to inhibit the reproductive cycle of slugs and snails. The observation he made was that while there were not lots of dead snails and slugs, they seemed to be far fewer in number and that the plants treated, including achillea and hostas, revealed a reduction in damage from slugs and snails on the order of 90% or more. Considerably less success was experienced with delphiniums, where the young plants showed greater susceptibility to slug damage. Repeat sprayings with the pokeberry juice on the order of once a month were made whenever an increase in damage from slugs/snails was observed. An abatement in damage resulted with the usual night foraging of the slugs and snails curtailed very greatly. Charlotte Kangas of Rain Dance Gardens in Hubbard, Oregon, another grower from whom I heard this year even while in the process of writing this article, also reported that the pokeberry juice seemed to deter the slugs and snails. In fact, its performance in that regard was good enough that she wished to order some more pokeberry juice, as her original supply was gone. She, too, advised that the poke juice remedy did not result in lots of dead snails, it simply kept them out of her garden quite well and seemed to lower the population drastically. It would seem that the pokeberry juice sprayed on the soil serves to erect a kind of "no-trespassing" barrier as well as provide birth control to the snail/slug population.

When one turns to the pine seed tea spray suggested by Rudolf Steiner, the information is very sparse. It consists mostly of the suggestion reported by Ehrenfried Pfeiffer as a further agricultural indication by Steiner. That indication is quoted in its entirety as follows:

> "In Dornach and Arlesheim we suffer from an awful plague of snails, which eat up all the leaves. To counteract them, Dr. Steiner advised spraying a 0.3% dilution of pine seeds. This is to be understood as referring to the soluble content of these seeds — presumably extracted by pressure — which should be dissolved in water to a dilution of 3-in-1000 and then sprayed over the affected beds. Dr. Steiner said we should try this and that it would be very interesting if parallel experiments were made on other beds.[4]"

One can find no evidence in published works by Pfeiffer that he, himself, did any work with pine seed tea as a slug or snail remedy. Even in *The Pfeiffer Garden Book* published in 1967 which, although not written by Pfeiffer, nevertheless relied heavily on his garden advice, fails to mention pine seed tea as an agent to counter the activity of slugs or snails. While slugs and snails are mentioned, the recommendations are merely the usual organic methods of establishing traps and relying on hand picking.

An extensive examination of a large number of biodynamic titles reveals only one other brief reference to pine seed tea in connection with slugs or snails. This reference is found in *Agriculture of Tomorrow* by E. and L. Kolisko. Since it is brief, it too, will be quoted in its entirety as follows:

> "If young leaves in vegetable gardens are eaten by slugs, we make them unpalatable for them by spraying the plants with an extract of the seeds of *Picea excelsa.*
>
> Three grams of the seeds are crushed to a fine powder in a mortar, then we add slowly lukewarm water, stirring incessantly at first to a thick pulp, then to a thin pulp; we then put it into a bottle and add lukewarm rainwater until we have 1 litre - 1000 c.c. Shake the bottle vigorously for about five minutes and then place it in the sunshine. From time to time we shake again. This emulsion is sprayed over the plants and soon the slugs will disappear."[5]

The fact that apparently so little work has been done on the pine seed tea as a slug deterrent in more than 70 years can only be regarded with amazement. Given the significant damage that slugs and snails can inflict on certain crops, it would definitely seem that there would have been more interest, at least in biodynamic circles, in examining pine seed tea as a possible solution to reducing or eliminating that damage.

JAILS cont. on next page

Seed Baths Update

By Hugh J. Courtney

For those who will be using seed baths (see Issue #7 of Applied Biodynamics)during this gardening season to enhance seed germination and subsequent healthy plant gowth, I would like to offer an alternative method of potentization. Earlier this year I was asked if the homeopathic technique of 'succussion' could be used as an alternative method of potentization for the preparations. Succussion involves a relatively violent pounding motion for creating a thorough mixing of the substance in the liquid carrier used as the medium for potentization. The violent or 'bashing' nature of this technique does not necessarily contribute the best energy characteristics to the finished product. An even better method of potentization is what I would label rhythymatization after the methodology used in making anthroposophical medicines. The essential technique involves placing the water or other liquid potentizing medium and the substance to be potentized in a jar shaped as symetrically at top and bottom as possible. Then, while holding the sealed jar on its side in a horizontal plane, one should move it back and forth in a gentle 'rocking' motion. The movement of the liquid in the jar should take a 'lemniscate' or 'figure 8' form. One maintains this horizontal rocking motion for 2.5 minutes. This results in a far less violent mixing method than the pounding motion associated with the succussion technique used in homeopathy. For seed bath treatment, one should take a portion of the preparation, say BD#503 used for legumes, place it in a pint or a quart canning jar with a small quantity of water to soak for a period of time up to 12 hours before administering the seed bath. One can, if it is desired, use less than a unit of the preparation as the portion for seed baths. The most important point is that the rate of dilution of the preparation to the water should be at least equal to or greater than 1 part preparation to 9 parts water. Just before treatment of the seeds, additional water is added to the jar to fill it at least half but no more than two-thirds full. The jar is sealed tightly, 'rocked' gently for two and one half minutes (minimum, but more time is not necessary) in the horizontal plane as described above. The liquid and the preparation should be thoroughly mixed as a result of the chaos created by the 'lemniscate' pattern formed in the water. Although the movement is chaotic it does not impart the violence of pounding as in succussion, but rather a rhythymic absorption of preparation energy by the entire volume of water. The jar is unsealed and the resultant liquid preparation is then ready to treat your seed. Such treatment should not be delayed for more than two hours without repeating the rhythymatization process. If delayed more than 24 hours, one should probably use fresh preparation and start over with the process from the beginning.

Progress on the New JPI Utility Building

By Hugh J. Courtney

In spite of what has seemed to be overwhelmingly adverse weather conditions (2 feet of snow, then ice, more snow and yet more snow interspersed by bitter cold and wind), we have made considerable progress on our new building.

As of the date this is being written, the cinder block shell of the building is nearing 60% completion. While there is much more work to be done even when the shell is fully completed, we are very encouraged at having reached the current stage of construction especially when the weather has been so uncooperative.

A special thanks to Lee McWhorter (President of JPI's Board of Directors), whose skill, hard work and expert guidance is overseeing the work thus far. Additional thanks to Steve Yates, who has ably served in assisting Lee and has helped the work to flow. At times, yours truly has also made a contribution to the work effort involved in putting up this new facility.

We are especially grateful to all those whose contributions have allowed us to reach this stage of the building construction with all bills paid and with enough materials on hand already paid for or funds available to complete the building shell. We will, however, need additional donations to complete plumbing, septic, electrical and other finish work inside the building. Please keep us in mind if you are in a position to make a contribution.



CHAMOMILE