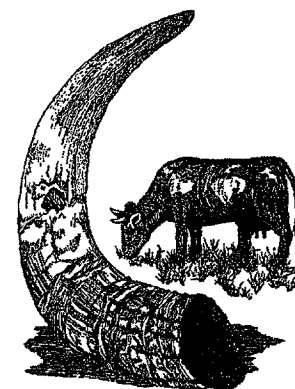
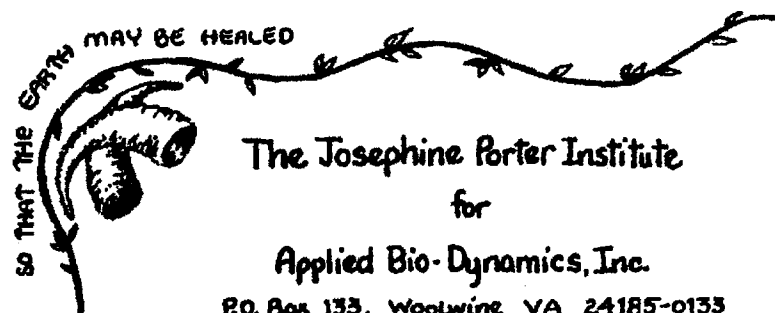




“We must observe that this inner life of the earthly soil (I am speaking of fine and intimate effects) is different in summer and in winter.”

Rudolf Steiner, *Agriculture*, p. 30



Applied BIODYNAMICS



SUMMER 1993

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JOSEPHINE PORTER — A BIODYNAMIC PIONEER

by Candace Coffin



Josephine Porter at the age of 28.

Editor's Note: The following article contains some excerpts and adaptations from the *Pocono Record*, Sunday, July 19, 1992 article on the sale of the Porter Farm in the Cherry Valley area of Pennsylvania.

Josephine Porter died in 1984, but her name and her work live on in Woolwine, Virginia, through the Josephine Porter Institute for Applied Biodynamics, Inc. Hugh Courtney apprenticed under “Josie” at her Cherry

Valley, Pennsylvania Farm learning to make the biodynamic preparations. Upon her death, when no one else was prepared to carry on her work with the biodynamic preparations, Hugh Courtney took on this task, moved it to Woolwine, and has made it his life's work. His apprenticeship took place over a seven year period, during which he was able to spend up to a week at a time under her tutelage each Spring and Fall.

Born in 1916, Josephine Porter showed exceptional promise early on, bypassing two grades in the one-room Cherry Valley schoolhouse. She graduated from Stroudsburg High School's Class of 1932 shortly after her 16th birthday. Her plan was to become an osteopathic physician after graduating from Blackburn College in Carlinville, IL in 1936, but there was not enough money to continue her studies so she returned home to work on the family farm.

During the 1930's she delivered fresh milk and cream throughout the Poconos and to summer resorts up to twenty miles away. During the Depression she made an effort to deliver milk to families with children, whether or not they could pay. It was during this time that she became known as “the milk lady.” During the 1940's she was the inspiration for a popular recorded song, “Queen of the Poconos.”

By 1946, Josephine Porter had discovered the seeds of what would become her life's work — a non-toxic, ecologically sound approach to agriculture. “I have found it,” she wrote in

a letter to her sister, “. . . the Bio-Dynamic method of farming and gardening. *I have long been interested in health which depends upon healthy plants, animals and soil life* (Editor's emphasis) . . . I have been attending the Bio-Dynamic Farmers and Gardeners Conference here (in Spring Valley, New York).” In 1956, Porter became secretary-treasurer of the Bio-Dynamic Farming & Gardening Association. She attended natural food conventions across the nation, staffing booths for the association.

“My mother became part of a core group that kept it (biodynamics) going,” states her daughter Abigail. “For 30 years she made the preparations that are put on composts and plants. She also answered thousands of letters giving advice.”

Divorced in 1964, Josie began building up her eventual 100-dairy goat herd, selling goat's milk retail and wholesale. Ahead of her time in many areas, Abby says of her mother, “As a single parent, she was an original ‘super mom,’ juggling her job, caring for an elderly father, raising a teenaged daughter, running a goat dairy, and taking care of a huge garden.”

Although Josie's dream of having her farm become a model biodynamic farm and training center was never fully realized, it served to plant the seeds for future biodynamic farmers. Many farmers and future farmers came to Cherry Valley to learn from her, including students from a work-study program at Antioch College (Ohio) and from Goddard College in Vermont.

Josephine Porter's dream continues to grow through Hugh Courtney's life work and the efforts of the Josephine Porter Institute in making and distributing the biodynamic preparations. About Josephine Porter, Hugh Courtney has written: “She was a most perceptive and talented master of her craft . . . one who operated from the most practical level ‘in the direct perception of things.’ Her primary concern was always to produce preparations of the highest possible quality, and it was evident to me, even from my first visit, that she made a considerable personal sacrifice in order to achieve this goal.”

The biodynamic movement in America came to fruition through the efforts of great pioneers like Josephine Porter. It is in thanksgiving to these pioneers that we must go forth in our biodynamic efforts so that the Earth may be healed.



MISSION

The Josephine Porter Institute for Applied Biodynamics, 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.

ABOUT NUTRITION

by Betsy Cashen, R.D.

One aspect of biodynamic practice is sustainability, seeing that the resources of agriculture are not violated or completely consumed in the process of producing the food itself. On the way to realizing this ideal we concern ourselves with the techniques applied to enrich the life and fertility of the soil, and to prevent pollution of the water supply. A viable future for agriculture also depends on being able to create a satisfying and fulfilling livelihood for the farmer and gardener.

Embracing this approach to sustainable farming can become the starting point to a style of living that is more mindful of how resources are used. As consumers, one question to ask is do our food choices reflect the seasonal availability of naturally-grown, local produce? This is one of the best ways to ensure not only full-flavored foods, and maximum forces of life (isn't this what we otherwise know as the naturally-occurring vitamin content of a food?), but also is a clear way to participate in the cycles of Nature and to give support to regional agriculture. Is naturally-grown, local produce available through nearby farms or stores? In addition, we can consider where to locate chemical-free sources for more of our foods, we can take steps to minimize the unnecessary packaging and processing perhaps by buying in bulk. The choices we make for our food are an important link in the chain for a more sane and responsible way of living on the Earth.

This of course begins to sound like the dietary customs of earlier generations which were based partly on necessity (you eat what you can produce at home) and much on common sense. The food practices of a majority of Americans of today

NUTRITION (continued on page 4)

The Board of Directors and Staff of JPI are most grateful for the support, both financial and spiritual, that has been the wind beneath our wings here. In these past months, orders for preparations, Associative Contracts and newsletter subscriptions are on the rise and appear to be indicative of the desire to improve the quality of agriculture, nutrition, and to heal the Earth.

In this issue, Betsy Cashen, R.D., invites us to think about what effect our food consumption might have on our quality of life. L.A. Rotheraine shares his successes, and there is the final section of Hugh Courtney's article on the preparations. (We apologize for having to offer this information in a 'series'. However, the article was long and our newsletter is small.) We are also pleased to be including an article on Josephine Porter, a pioneer in the field of biodynamics. Other biodynamic pioneers will be featured in future issues.

On behalf of the Board and staff of the Josephine Porter Institute, warm wishes for a productive and enjoyable summer season are extended to each of you.

— Candace Coffin, Editor

P.S. to Associative Contractees: your fall preparations could be shipped earlier with notification. Drop us a postcard if you wish them sent earlier, or if additional preparations need to be shipped.

EVERGREEN ELM . . . (continued from page 6)

County Fair stated: 21 vegetable entries: 18 ribbons awarded to Evergreen Elm; 11 first place blue, including blues in the two most important categories: Large Market Basket and Small Market Basket. (Both market basket awards are a sampling of most garden vegetables.) The *Philadelphia Inquirer* ran a picture of the most photogenic tomato plant (the Selke Biodynamic Cherry Tomato plant, which produces about 2000 tomatoes per plant) and offered their readers the opportunity to learn Evergreen Elm's biodynamic secrets if they wrote to us — we've received over 700 letters so far!

Congratulations to L. A. Rotheraine and the Evergreen Elm Gardeners!

Readers will be interested to know that even though the biodynamic garden was cut from the programs for the handi-

capped, because of the good will, good publicity, and good food it creates, the program was unanimously reinstated by an executive board vote.

† Readers interested in obtaining the formula for Evergreen Elm's Biodynamic Compost Starter tonic water and root dip, as well as planting instructions for tomatoes, should send \$5 to: Evergreen Elm Horticultural Therapy Program, Room 804, Hooker-Fulton Building, Bradford, PA, 16701. (Make checks payable to "Evergreen Elm, Inc., Horticultural Therapy Program".)

L.A. Rotheraine will report on the Selke Biodynamic Cherry Tomato and the Evergreen Elm recipe for planting tomatoes in a future issue.



ST. JOHN'S DAY FESTIVAL by Candace Coffin

During the month of June the season of summer officially begins with the day of longest sunlight, the summer solstice. The ancients celebrated the sun at this midsummer time with song, dance, poetry and meditation. The Christian churches remembered John the Baptist at midsummer, and so, as with many celebrations, the festival that is celebrated combines the two traditions. It is on June 24th that the festival of St. John, or St. John's Tide (tide is an old English word for "time") takes place. The regent of summer is the Archangel Uriel, whose Hebrew name refers to the radiance and fire of God . . . the bright, warm summer day.

At this time of year the process of the Earth's outbreathing is at its height, and whereas "the life of the Earth is especially strong during the winter season, in summer-time it tends in a certain sense to die."⁽¹⁾ "The entire soul-element of the Earth has been poured forth into cosmic space; it is yielded up to cosmic space and is saturating itself with the forces of the sun and the stars."⁽²⁾ The Earth's soul forces are exhaled into the cosmos and it is the life of the sun that predominates. The sun's forces have a strong influence on the processes taking place on the Earth's surface during the season of summer. "All the growth and fruiting processes, produced by the springtime through the interplay of sun and earth, can now culminate under the sun's influence. The earth now appears drowsy, as the increasing solar forces, manifesting as warmth and light, enable fruits and grains to mature and ripen, ready for the harvest."⁽³⁾

Initially it does not appear possible that the Earth is drowsy, asleep, during summer. Yet, as Adrian Anderson points out in his book *Living a Spiritual Year*, when we are asleep our growth and healing processes are at a maximum, so it is in the summer, when the Earth is asleep, that the fruition processes, the vegetative life processes, predominate. Human beings must remain alert so that they too are not drawn into a drowsy state. In a lecture given May 23, 1912, Rudolf Steiner stated "We need to use all of our soul forces, so that we do not lapse into the sleep of the earth."

The festival of St. John, in speaking to us today, can weave

an understanding of the sun and will forces. The sun forces can be a reminder to us that the Earth's soul forces have been exhaled, the Earth is in a state of sleep and we must use our individual will forces to remain awake. Our will forces can be strengthened through the Christian remembrance of John the Baptist. The cry of John the Baptist to repent, to review our past in such a way as to feel compelled to change our mind, to change our actions, can help us focus on strengthening our will forces. Anderson states "a particularly important theme of the new midsummer festival is therefore a striving toward an enhanced awareness of our will forces an effort to become more aware of our potential for disharmonious as well as selfless, humanitarian acts, an effort to enable the higher ego to come to expression ever more fully in our innermost being, in what we will."⁽⁴⁾ We might look to how earlier peoples integrated festivals and nature into their lives; how they connected and reconnected, as a model for us today. "To the people of very ancient periods on Earth, the festivals that took place during the year formed a very significant part of their lives."⁽⁵⁾

For the biodynamic practitioner, the summer festival of St. John can be a time of encouragement to bring harmony through the use of the biodynamic preparations. It can be a time of enthusiasm as we become aware that it is through our actions of using the preparations that we become mediators of harmony and balance on our farms and in our gardens. The warmth, light and brightness of the sun's rays can be a symbol of the warmth, light and brightness that rays forth through our deeds and actions. The St. John's Day festival can become for each of us a reminder and a celebration that our actions can be as bright and warm as a summer day.

(1) Steiner, Rudolf. *Agriculture*, Biodynamic Agricultural Association, 1977, p. 34.

(2) Steiner, Rudolf. *The Cycle of the Year*, Anthroposophic Press, 1984, p. 8.

(3) Anderson, Adrian. *Living A Spiritual Year*, Anthroposophic Press, 1993, p. 99.

(4) *Ibid.* p. 132

(5) *Ibid.* p. 53

they picked and cleaned their vegetables, thinking how innocent and enthusiastic these gardeners are. If they only knew the difficult position they had been placed in by destiny, would they be so confident and carefree as they now appeared? Did they really know how important the ecological ramifications of their gardening efforts were having on the community? Did they fully understand that their efforts were igniting a mini-gardening revolution in this area? Could they realize that they astounded the veteran judges at the fair last year with "the never seen before quality of these biodynamic vegetables?" They certainly did *not* realize that their project, the vehicle which allowed them, for the first time in their lives, to experience an arena in which handicaps do not matter, was in great peril. What incredible good they could do for biodynamics and the community as a whole if they could duplicate their performance of 1991! The sponsoring agency might even allow them to have a chemical and pesticide free garden again next year if they made just a decent showing at the Fair. I

thought of the extra cynical newspaper and TV reporters, and editors who only a few years earlier had laughed at our biodynamic gardening techniques, the Stella Natura Calendar, and the invisible cosmic and earthly forces the biodynamic technique enhance. Some of them were interested in the Fair results too. They would have to question their own thought processes if Evergreen Elm's biodynamic gardeners had another award winning year. I also thought of Margrite Selke, whose Biodynamic Compost Starter had given us the tools to turn raw manure and garbage into super produce. Hugh Courtney also came to mind. Who was this person who made the Thun Barrel Compost and the BD#501, which seemed to bring every fire and air spirit in the Allegheny Mountains into our gardens? The day of judgment came and when the results were reported to me, by telephone, I asked to have them repeated three times. The voice calling from the McKean

EVERGREEN ELM (continued on page 7)

BD #501 by Hugh Courtney

Virtually from the beginning of biodynamic agriculture, the horn silica preparation, BD #501, has been associated with the forces of sunlight, or the light ether forces. It has even, perhaps, been seen as a substitute for too little sunlight. Conversely, when strong sun conditions exist, it has been suggested that one can forego the use of BD #501. (During a visit by Alex Podolinsky in the 1980's to the American West and Midwest farm lands, several farmers were strongly influenced by this assessment that one was already dealing with too strong sun forces.) In addition, BD #501 is called for during the crop season when the grower is so busy that it is much easier to justify skipping the task of spraying it if one has an authority to fall back on, such

as Alex Podolinsky or others. Rudolf Steiner, in *Anthroposophical Spiritual Science and Medical Therapy*, refers to the light ether having derived its name from the fact that most human beings have the ability to see. He further states: "If the majority of humanity were blind, this ether (light) would naturally be given a different name, because other aspects of it would manifest more strongly to the blind." Given the geographic forces picture referred to in previous issues (see figure #1) of *Applied Biodynamics* newsletter, I would like to suggest that we first of all consider the possibility that BD #501 in this western hemisphere may be working more strongly with those "other aspects" of the light ether and secondly, that we be much more dedicated to understanding just how BD #501 should "work" under our North American geographic conditions. In research, still in progress, Walter Goldstein, at the Michael Fields Agricultural Institute, in East Troy, Wisconsin, has seen that BD #501 has not had the harmful effect on crops that has been suggested.

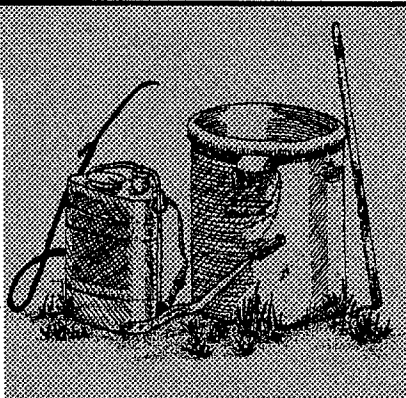


Figure 1

The BD Preparations Related to Geographic, Mineral, and Other Forces in the Earth		
EARTHLY	MEDIATING OR BALANCING	COSMIC
Western Hemisphere	Eastern Hemisphere	
North America South America	Europe Africa (?)	Asia Australia
Limestone	Clay (or Clay/Humus)	Silica
#500/#505 #503 #502 #504 #506 #507		#501 #508

BIODYNAMIC PREPARATIONS

by Hugh Courtney

Editor's Note: This is the third and final segment of the adaptation of a lecture given by Hugh Courtney at the ACRES, USA conference in Dec. 1991. The article reflects the personal views, understandings, and experiences of Hugh Courtney.

One of the reasons that I committed to making the preparations, even before I had read many of Steiner's works, or understood things up to this point today, is that I had an overwhelming call you might say, to accomplish that little task — that little spiritual task of making the preparations. However, the work that I do is fruitless unless the preparations are used. So, I also try to use the preparations. It is very difficult sometimes to visit someone and find that the preparations that I shipped to them six months previously are still sitting in the shipping container on top of the refrigerator. But that is their spiritual task. Further, I hope, it can become the spiritual task of those in agriculture to make his/her own preparations. We at the Josephine Porter Institute do try, with our limited resources, to give every possible help we can to permit the farmer, and the backyard gardener, if he/she wills, to make his or her own preparations. This is not a trade secret, it is low tech, it is a little bit weird, gory, odd, but it is a possibility. It does carry a spiritual force. And this brings me to something else that I must say.

Unless you are committed to working on things yourself spiritually, don't use the preparations. If you use them, particularly if you use all nine of them, you will change the spiritual aura, or atmosphere, or force, in the soil on which you use them. And that in turn will change your entire farm, garden, neighborhood, county, maybe even state, who knows? The biodynamic preparations carry the highest, positive forces. Many who use the biodynamic preparations have no idea that they involve such a spiritual dimension. But I can guarantee you, and I can say this without Steiner's ability of spiritual perception, when the preparations are used they carry a very powerful spiritual force. You are so advised. I have known some people who chose to use the preparations when they were still dwelling largely in the economic sphere and they had little concept of fraternity or brotherhood, and I guess the best way to put it, chaos entered

their lives. And for those who didn't change, the chaos is still there. They're dealing with a lot of things that they need to straighten out. Those that chose to change subsequently, were encouraged to do so simply by using the preparations, and found that indeed the atmosphere around them changed, things did become more positive, things seemed to happen. Steiner tells us that using the preparations enables the plant and the soil to attract to itself what it needs; well, your use of the preparations will allow your soils to attract what your farm needs, and some of those needs are your own spiritual needs, and that can be quite positive.

I want to cover one other thing. This has to do with the task that Charlie Walters, Editor of ACRES, USA, gave me, of laying the scientific basis for biodynamics; it's a spiritual scientific basis. Steiner speaks of etheric formative forces (see Figure 6). These are the forces that form material substance. This is the blueprint, if you will, at the borders of the physical world, but still in the spiritual world. This ether force or realm, if you will allow me to use the jargon a little bit, is right there at the boundary. It's a premanifestation into the physical. These etheric, or formative, forces are those which shape the plant and which shape material substance, including a human being. He describes four forces: the warmth ether, and that works through the element of warmth or fire; the light ether, that works through the element of light or air; the chemical ether, that works through the element of water, also known as the tone or sound ether; and lastly, the life ether, and

PREPARATIONS (continued on page 4)

ETHERIC FORMATIVE FORCES

FORCE	ACTS THROUGH ELEMENT OF
Warmth Ether	Warmth / Fire
Light Ether	Light / Air
Chemical (OR) Tone (OR) Sound Ether	Water
Life Ether	Earth

Figure 6

that works through the earthly element. Eons ago when there was nothing formed of the universe except warmth, the only ether in the physical was this warmth ether, a concept which is difficult to conceive, but allow that to stand please. Next came, a few eons later, but still many, many eons ago, the light/air ether. And so we had the conditions of warmth and air, and that's all. Then came the sound, or tone, or chemical ether, which worked through the watery element. And so in the beginning was the word, I think, the sound, and that is the only thing that we know now. That is the experience that has allowed us to develop our present day chemical and even organic agriculture. What is now apparent, what Steiner announced in many, many ways, and few perceived or heard, is that we are at the threshold of an entire, new creation, where Steiner says that mineral fertilizers will cease to be used because they will cease to be effective. We are now at the threshold where this chemical, tone, sound watery ether, working through the watery element, will no longer be effective, and we must learn another way — a way to work with this life ether. There may be other ways to do this, but they have yet to be brought to my attention. As of this point

in my experience, the only thing that can bring in this life ether is using the biodynamic preparations. The preparations are carriers of this life ether. The preparations are not substances, they are forces, carriers of forces, and the most important force to be carried for our times is the life ether. Six to eight thousand years ago we had the so called beginnings of agriculture; Zoroaster is credited with that by some. We had the hunters and the gatherers becoming farmers and herders, and we began to use the chemical ether to make things work. What we must begin to use in this time is this life ether. Perhaps none of you need worry about this in your life time, but, before the work is done, this is what must be used. These are the forces that must be learned and used. And, this is, as I see it, the reason for the biodynamic preparations, the reason for using them.

For a copy of the entire article "Biodynamic Preparations," an adaptation of a lecture given by Hugh Courtney at the December 1991 ACRES, USA conference, send your request along with \$5.00 to JPI, PO Box 133, Woolwine, VA 24185.

NUTRITION (continued from page 2)

are far removed from many of the traditional ways. Most of our food is supplied from far away places, with much less relationship to the time of year and normal growing season. The average produce item travels 1200 miles before it is purchased. More and more the trend is towards using packaged, ready-made meals. The United States devotes 4% of its energy to packaging food, almost as much energy as is used to grow the food. And, roughly 1,000 new food items are introduced into the supermarket each month.

What effect has this shift in food consumption had on our quality of life? In a recent interview, Joan Dye Gussow, nutrition professor at Columbia University, shares this insight: "People have to understand the true cost of their food. They have to get more connected to the land. I believe that human beings are deeply disconnected from the earth, and that disconnection is the cause of many of our problems. The message is that we have learned how to live without nature by subduing nature, and that's nonsense. Until people learn how to reconnect with that part of themselves, I just don't know how we're going to save the planet. I feel like food is the perfect route to begin making those connections to nature. The connections are just so much more obvious with food because food is supposed to be a direct product of that system and one of the few with which we are still in touch."

A second comment on how the food we cook and eat takes us back to the source of the food comes from Mexican writer Laura Esquivel, "You put a package in and cook it and it takes you back to the factory where it was all made. You don't go back to earth, you don't get reminded of your nature."

At this point in time we have the whole range of possibilities to choose from, and in that respect we differ from people living fifty or more years ago. Then, home gardens were the norm, the local grocery store carried primarily unadulterated, whole foods, and convenience foods were still on the horizon. The



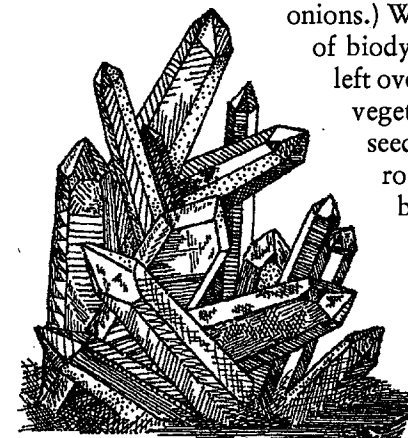
art of today means finding a balance between the two extremes between what can be bought as the latest food sensation, and what can be supplied naturally from within our own agricultural realm. The important point here is not to feel like we are being judged for doing one or the other. Feeling guilty about eating some kind of junk food, or feeling particularly impressed with ourselves for being 100% home-grown and biodynamic, can work against us. When we are motivated to make changes because it represents an opportunity to add meaning to our life, that is when our actions have real significance. And, each of us begins the process from where we are now.

The following illustrates one example of reforging a connection with our food. At a recent meeting of the Anthroposophical Nutrition Working Group, people were put into groups of three with samples of un-named plant material assembled on the table. These were dry and sprouted beans, and seeds of wheat and sunflower, allowed to grow in soil for ten days. The groups were asked to observe, smell, taste, touch, and share their impressions of these plants set out before them, and to pretend that they knew nothing about these plants other than what they could now discover and describe for themselves. Within the first few minutes, one participant who had admitted she did not know what we were supposed to be doing with this exercise, came to the realization that she had never *really* looked at this bean before, although she had eaten it many times. This simple exercise helped to reawaken her senses, and to evoke a genuine feeling of appreciation towards something as familiar as her daily food.

SELKE, COURTNEY, AND EVERGREEN ELM by L. A. Rotheraine

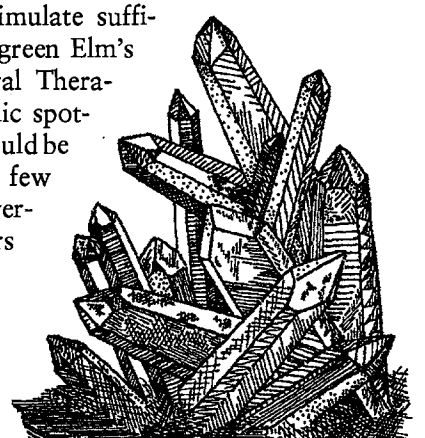
Editor's Note: The author of this article, L. A. Rotheraine, is the Master Gardener for Evergreen Elm's Biodynamic Community Garden, a gardening therapy program for the "mentally handicapped" in Bradford, Pennsylvania.

In 1991, Evergreen Elm, Inc., a non-profit residential care agency for the handicapped, received state and federal funds for a biodynamic garden, entitled *Evergreen Elm's Horticulture Therapy Program*. It had remarkable success. The volume and quality of the 1991 vegetables stunned critics (and there were many) of this "strange agricultural system." When the so-called "handicapped" won 11 ribbons out of 14 entries in major vegetable categories, (8 first place blue), at the McKean County (PA) Fair, it started to change the town's perceptions of both biodynamics and the handicapped. The Elm Street Biodynamic Garden quickly became a showpiece for the people of Bradford, PA. However, due to economic bad times and other priorities of the agency, the program was scheduled for elimination. But the publicity received in 1991 and the obviously beneficial therapeutic effects to both participants and the community encouraged a further commitment by the Board of Directors of the non-profit agency. They saved the project from the fiscal axe temporarily. Thus, we started 1992 knowing we needed another fantastic year, but due to a series of unfortunate circumstances we only had a small amount of biodynamic compost. We did have 10 tons of raw cow manure mixed with hay and an equal amount of leaves. The Elm Street Biodynamic Garden is on a lower slope of a crystalline mountain, about 20 feet from the valley floor, on about a 10-15 degree incline. The adjacent western mountain that forms the valley is of a crystalline nature also, and about a 1/4 mile from our eastern mountain. The floor of the garden is at least 5 feet of solid clay. Our mounds (raised beds) have been in place since 1990. We didn't bother digging into the clay, but constructed beds 4-5 feet wide and 3-4 feet high, out of leaves, tree branches (twigs up to 6" in diameter and placed as a layer), composted horse manure and a low grade "topsoil." The beds were placed right on top of the clay. We use a biodynamic, intensive method of intercropping with 3-5 crops in each raised bed. We planted onions at the base of each bed up the slope 12" and then peas an additional 6" up the slope to help hold the base soil in place. (Onions were planted tightly and then some weeded out and used as green onions.) We used the small quantity



of biodynamic compost that was left over from 1991 for the 1992 vegetables we planted from seed, which included all the root crops, lettuce, herbs, beans and peas. These seeds were planted in drills on top of 4-6 inches of biodynamic compost, then watered with biodynamic tonic water (a formula made with Biodynamic Compost Starter+),

covered with more biodynamic compost, and then watered again with the BD tonic water. The seeds were watered with the BD tonic water a third time at sunset on the appropriate day, according to the Stella Natura planting calendar (i.e. lettuce on a leaf day, peas on a fruit day, beets on a root day, etc.). A few weeks later, when the seedlings were through the ground, we sprayed them and our pre-started plants with Thun Barrel Compost. Then, on the day after our last frost, June 23, once again, we sprayed in the evening with Thun Barrel Compost. Except for the tomatoes,† all the pre-started plants were planted in a mix of raw cow manure, straw, and leaves. We dug holes in our beds about 12-20" deep and wide, put about 5 gallons of the cow manure mixture into each hole, placed about 6" of soil on top of the cow manure mix, into which the pre-started plants were placed. The pre-started plants included peppers, cucumbers, sunflowers, swiss chard, and all members of the cabbage and squash families. Each pre-started plant was watered with about 1/4 gallon of BD Compost Starter tonic water every day, and sometimes twice a day (depending on conditions), at the base of the plant, for the first two weeks after they were planted. These plants were also immediately mulched with leaves and grass clippings. The roots of the cabbage family were soaked with a root dip† before planting. Everything grew green and large, but fruition was retarded by the cold and rainy summer we were having in 1992. More drastic action had to be taken to give the project a chance of surviving the fiscal axe again. I feared using BD#501 because of the already intense crystal influences coming from our silicon mountains which stimulates excessive heat and air activity. The silica was also a concern because of the maturity of the plants. (See sidebar information on BD#501.) I telephoned the Josephine Porter Institute and Hugh Courtney told me that BD#501 would work with minimal damage, if any at all. (We only lost 3 cucumber plants, and this was probably due to spraying too late in the morning.) The BD prep #501 was sprayed 2-4 times on each plant, in the early morning hours, on fruit days. As I was spraying I realized that BD#501 is the answer for a person desiring an instant sunburn and that it could probably be used as an herbicide. (Both myself and my spraying partner's faces and arms turned red, like a sunburn, however there was no pain and no heat to it and we both tanned.) But could it create enough warmth and stimulate sufficient light to keep Evergreen Elm's Biodynamic Horticultural Therapy Program in the public spotlight so that our work would be allowed to continue? A few weeks later I watched Evergreen Elm's gardeners choosing and picking the vegetables that they would use in the County Fair competition. I watched them smiling and laughing as



EVERGREEN ELM (continued on page 6)