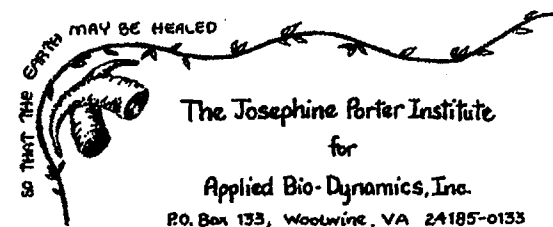


“You see, by burying the horn
horn the forces it was accustomed
property of raying back whatever
winter — in the season when the
the horn becomes inwardly alive.
winter-time. All that is living is
tent of the horn we get a highly



with its filling of manure, we preserve in the
to exert within the cow itself, namely the
is life-giving . . . and so, throughout the
earth is most alive — the entire content of
For the earth is most inwardly alive in
stored up in this manure. Thus in the con-
centrated, life-giving manuring force.”

— Rudolf Steiner, *Agriculture*, Lecture 4



The Josephine Porter Institute
for
Applied Bio-Dynamics, Inc.
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ISSUE Nº 2

CHRISTMAS

by Candace Coffin

During these past months the days have continued to grow shorter, but just beyond the middle of December there is a turning point when the process reverses and the days begin to grow longer. We celebrate Christmas at this time, the birth of Christ, the Birth of the Light. Humanity has celebrated the birth of light during this time since before the birth of Christ. In a lecture given December 19, 1904, entitled “The Birth of the Light,” Rudolf Steiner speaks of the deeper meaning of the Christmas festival which requires a look at the spiritual stages of human evolution. The first stage or epoch was that of divine unity, before division into male and female occurred. The second epoch consisted of the twofold human being, male and female, when the soul developed and evil entered the earthly world. During this epoch of duality, human beings looked toward a redeemer, a mediator, who would lead humanity away from evil. This third epoch came with the birth of Christ. Through the incarnation of Christ, the Birth of the Light, a new light of spiritual forces with which selfishness could be overcome and harmony consciously regained became accessible to the human heart. In other words, the ability for each of us to actively participate in leading humanity away from evil became possible. Christ can now be born into the human heart that is open to this birth. Steiner stated in his lecture, “We can understand the deeper meaning of the Christmas festival only if we grasp the mediator in the right way. The duality developed out of the unity; out of the duality a chaos arose in which harmony had to be re-established.” The Christmas festival can reawaken in us an openness to these spiritual forces and thus the will to participate in re-establishing harmony.

Biodynamic preparations can assist in re-establishing harmony and in bringing meaning to the Christmas words “Peace on Earth to people of good-will.” In light of the Christmas festival the farmer/gardener can grasp anew the task of biodynamics in fulfilling the mission of healing the Earth and thus bringing the healing influence to humanity. The purpose of biodynamics is to bring plants into the proper interaction, into harmony, between earth and the cosmos.

ABOUT NUTRITION

by Betsy Cashen

Editor's Note: In his lecture course *Agriculture*, Rudolf Steiner speaks of the forces taken in with earthly foods as important because “they bring the forces for willing into the body.” Thus, since healthy nutritional hygiene begins with agriculture, we at JPI felt a nutrition column would be an important aspect of *Applied BIODYNAMICS* and asked Betsy Cashen to be our nutrition columnist.

A nutrition Column in a newsletter on applied biodynamics, what an excellent idea! The two topics naturally belong together, for a biodynamic approach to agriculture seeks to provide high quality, nutritious food for people. What makes raising the issue of nutrition in this context so interesting, is that the whole focus of biodynamic agriculture does indeed require a new understanding of the living world, and a new vocabulary to relay this. To refer to an article from the first issue of this newsletter, it was emphasized that one key in achieving this is to learn to “think in terms of forces rather than substances.” Therefore, it is not sufficient to merely analyze the substances found in a plant or in a milk sample to fully appreciate its value as a food source. But rather, by striving to thoughtfully place the organism (i.e. the plant, the animal, the farm, etc.) within a dynamic realm of intervening forces, the life cycle of this organism can then be viewed in part as an expression and manifestation of certain supersensible forces. This expanded understanding of the dynamics that

NUTRITION (continued on page 5)

As we celebrate the Christmas festival, the Birth of the Light, we are reminded of our call to participate in establishing peace and harmony on earth. We do this by allowing the Light to be born in our hearts and to flow into our will so that our actions will be those of love.





MISSION

The Josephine Porter Institute for Applied Bio-Dynamics, Inc., was founded to produce quality bio-dynamic 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.

case of significantly larger or smaller amounts of preps, some price adjustments may be necessary.

The associative contract concept for the preparations is a radically new idea. There is still plenty of time to work with us on a satisfactory associative contract. Please feel free to contact us so that we may serve you adequately.

BD PRACTITIONERS RESEARCH

(This column will share with the readers various results of the BD preparations as used by practitioners.)

EQUISETUM ARVENSE/HORSETAIL HERB, BD #508

"... thank you for your recommendation to use Preparation #508, Equisetum arvense/Horsetail herb for my compost disorder. I raise a lot of sunflowers here at Santa Barbara Sprouts and they are very sensitive... I was having a lot of fungus occurring which was ruining my flats. The compost was prepared under a Sycamore tree on a virgin site and seemed to be ready for use. Within one week after reworking the compost and spraying #508 on it a test flat proved to be without fungus and was viable. The problem was eradicated and Prep #508 was the key."

— Rick Lemke

Please write and share your results with us too.

FROM THE JPI BOARD OF DIRECTORS

As our first newsletter indicated, all biodynamic preparations tasks will be handled solely by JPI. Again, this decision was a carefully considered joint initiative between JPI and the BioDynamic Farming and Gardening Association (BDA). It was time for JPI to leave the nest, so to speak. However, the JPI and BDA relationship is a very strong one and JPI is deeply grateful for the generous support that was and continues to be forthcoming from the BDA. The JPI Board and Staff extend their heartfelt thanks to the BDA for the nurturing that afforded the opportunity to take on the BD preparations work. It is with the full support and backing of the BDA that we go forth on our mission.

The reader responses to our first newsletter have been heartening indeed. The Associative Contract was well received too. We look forward to continuing to serve BD practitioners. The JPI order form is again included in this second issue of the newsletter. For those of you who may have inadvertently forgotten to fill out your order forms and get them in, you have a second chance. It also seemed a good idea, to us, to suggest to you all that you consider gift giving an Associative Contract, a subscription to *Applied BIODYNAMICS*, or possibly a book or two. A wonderful way to contribute to the healing of the Earth.

May this season awaken the child in each of us so that we might be more open to all the wonder that lives around us.

ERRATA: The quote on the back of our first issue is from the Preface to *Agriculture* written by Ehrenfried Pfeiffer, and was a quote from Rudolf Steiner to Pfeiffer.



Chamomile

READER RESPONSES

Many encouraging notes were sent and we share a few here:

"Congratulations on your newsletter! I am proud to see how you are representing biodynamic agriculture..."

"Just a note to tell you JPI's Newsletter is exactly what has been needed by us in the field. Keep on doing that good work."

"The newsletter is excellent. The contract also a great idea."

"Very good concept." (Associative Contract)

Contributing Artist

The beautiful artwork in our newsletters is contributed by Erin Coffin who credits the blossoming of her artistic talent to the Waldorf teachers at the Hawthorne Valley School in Harlemville, NY. Currently she is living in southwest Virginia, a member of a simple living community, and works one day a week at JPI.



Dandelion

NEWS BRIEFS

RESEARCH

The February issue of *Applied BIODYNAMICS* will detail the individual research projects which were referred to in the first issue.

ORDER FORM — Handling Charge

The \$5.00 handling fee covers the postage on all prep orders (the minimum postage fee is \$2.90), as well as the packaging and handling. In order to ensure quality the preps are sent priority mail.

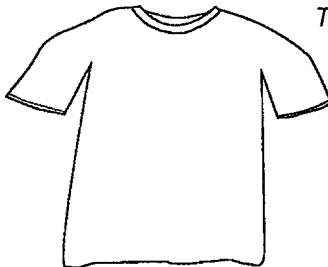
ORDER FORM — Associative Contracts

JPI is trying to ensure the preparations user a timely supply of the minimum amount of preps needed to cultivate a given area of land biodynamically. The user in turn supports JPI with up-front money to ensure JPI's ability to continue the preparations production and distribution work. The contract allows the user to order additional preparations if unforeseen need for preparations arises after the contract is signed. Obviously for some growers the "standard" per acre preparations amounts will be inadequate. If you know before you sign the contract that you will need more or less quantities of preparations for your acreage than is in the standard contract, please let us know. We will gladly customize your order. In the

GIFT IDEAS FROM JPI

We hope you will consider the following for gift giving ideas this Christmas.

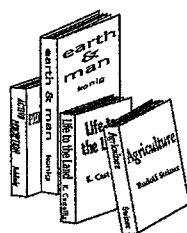
ASSOCIATIVE CONTRACT(S)
NEWSLETTER SUBSCRIPTIONS
T-SHIRTS



BOOKS

Also, don't forget the Kimberton Calendar, *Stella Natura* which is available from JPI.

*See enclosed order form for gift giving ideas.



ATTENTION READERS

Guidelines for storing preparations as well as an outline of the biodynamic preparations has been inserted in this issue for your information. The guidelines are targeted to those who have "signed a contract" with the Josephine Porter Institute. The "fine print" of the contract stipulates that the user shall have the means to store the preparations. However, it is hoped that anyone and everyone will take a look at these guidelines and consider incorporating some type of storage for preparations that do not get used immediately.

Storing preparations is, in a sense, the simplest and least critical step in dealing with preparations, compared to making or using them. Perhaps for that reason storage is easily overlooked, sometimes to the detriment of the preparations. Please see the box titled "In General..." There you will find the most important storage requirements in a nutshell. Since the time when these storage guidelines were compiled, we have gained more practical experience and can make the following observations. Unglazed clay vessels, such as flower pots, have the tendency to dry out the preparations, especially if the peat moss and the surrounding air is dry. Consider getting glazed ceramic containers or even using glass instead. Another tip is to make the insulated lid out of tongue and groove or lap boards. The chances of peat dust leaks will be minimized.

Please share your experiences with storing preparations, and please contact us if you have questions, but most of all, please do store the preparations properly if you don't need to use them immediately.

THE GARDENS AT JPI

by Gisela Franceschelli

Editor's Note: The Courtneys (Liz & Hugh) and the Franceschellis (Gisela & Nick) live on the property where JPI is located and are the staff of the Institute. They are BD practitioners, and so it seems appropriate to share with our readers their gardening experiences. Gisela spends much time with the plants and we asked her to be our garden columnist. Although Gisela does not have a gardening background, while living in Germany she was employed distributing biodynamic produce and biodynamics became a major concern in her life. Gardening has now become a central part of her daily work.

Let me introduce you to our gardens, our work-life rhythm, and the environment here in Woolwine. Along with biodynamic preparations making, we also have gardens, cows, and work projects to attend to, and I (being only a student of gardening) shall attempt to share our ongoing development in the area of gardens on a regular basis.

The 1992 growing season at JPI in Woolwine started out with a mild, imperceptible change from winter to spring, since we hardly had a winter (one day of snowfall in March) and no real strong frost periods. JPI is located in the foothills of the Blue Ridge Mountains in Patrick County, Virginia, about eight miles away from the Blue Ridge Parkway. There are only a few flat leveled areas for growing crops. According to the friendly local folks there used to be farming in this Bible belt a long time ago. Nowadays one finds small scale hobby farmers with beef cattle; here and there mountain people milking two or three cows and practically giving away the

precious liquid; growing sweet corn, beans and greens and taters is still the pride of some homesteaders. Apple and peach orchards dominate the hilly countryside and these orchardists cope with late frosts in spring and red clay soil. The great amount of wild flowers in the Blue Ridge are a treat to the eyes (Augenweide). Thus, we sometimes get side-tracked . . . wild-life, domestic animals and people do enjoy living and working here, at least that is our im-



Valerian

pression! To make life enjoyable one needs good food, "don't you reckon?" Our gardens have been full of it. It could always be more, but we are grateful for every little bit.

We are continuously working on improvements in the fields, gardens and buildings. There is a visible difference of the soils in each of our garden beds. The variety of wildlife which feeds from the gardens and the individual atmosphere of each location, keep us busy thinking and acting/reacting! Of course all of our gardens and pastures receive biodynamic treatments.

FALL GARDEN ACTIVITIES have included:

- Seed soaks in valerian preparation (#507): valerian preparation stirred in water for 20 minutes, soaking time: 1 hour.
- Starting seeds (kohlrabi, cabbage, lettuce) in Mini Greenhouses: recycled and cut short milk cartons, holes punched in the bottom, filled with vermiculite, perlite + peat moss mix — covered with plastic wrap = collects condensed water.
- Building a temporary cold frame from 9 hay bales, laid out rectangularly, covered with plastic; (old windows might work better).
- Transplanting seedlings into cells. Cells contained sifted bd-compost; placed each cell in plastic trays so one could water from underneath; this way young plants don't get flooded in the cells.

GARDEN BEDS PREPARATION:

- Barrel Compost and raking-method.*
- Stirring and spraying: Preparation 500 (Horn Manure) on the garden beds and the pastures.
- Planting cover crops in empty beds: seed rye, vetch, sub clover, rape and mustard; planting chamomile seeds; dividing roots of valerian plants and transplanting them.

Along with working the soil and growing vegetables, other tasks keep us busy. Our cows are an integral part of the biodynamic preparations making (Barrel Compost, BD #500, "Prepared" 500 and X500) and they too call for our attention. Nicolas, who is in charge of the herd, has been introducing controlled grazing for our 15 head of cattle. The main purpose for having these cows, heifers, steers and the bull is to collect their precious manure which gets processed into either compost piles, horn manure or barrel compost. There is always something that needs doing and we (the staff along with volunteers) work at creating a balance and at being flexible to the demands of the Biodynamic Preparations work, the animals and the plants.

This has been a small overview of the rhythms here in Woolwine and I look forward to sharing more with you in future issues of *Applied BIODYNAMICS*.

* If you are interested in receiving our info sheet, *Preparations Not As Substance But As Forces*, send a SASE and \$1 requesting this title.

BIODYNAMIC PREPARATIONS

by Hugh Courtney

Editor's Note: This article on biodynamic preparations by Hugh Courtney has been adapted from a lecture presented at the ACRES, USA conference in Dec. 1991.

In giving any kind of introductory presentation on biodynamics, I recently learned that there are some rules that one should not break. Number one, don't discuss the preparations because people really aren't ready for that; it's too involved, it's too complicated, it's too weird. That's a little difficult for me since my main effort with biodynamics is making the biodynamic preparations for those farmers and gardeners who are not in a position to make their own. So I break that rule most of the time. The other rule that I learned about is never make the connection between biodynamic agriculture and anthroposophy or spiritual science. Anthroposophy, spiritual science, came through Rudolf Steiner. The biodynamic farming, or biodynamic agriculture, came through Rudolf Steiner in a lecture course on agriculture. This little collection of eight lectures, published with the title *Agriculture*, is one of the most difficult to read of all his books that anyone can ever stumble against. It is also a book, or a collection, that contains such a wealth of information, such a new way of looking at agriculture, as to be absolutely mind boggling. I have read this book myself maybe three dozen times, from cover to cover. I could read it again starting tomorrow and be once again overwhelmed by the wealth of information in it. So, the first misconception that I would like to clear up is that biodynamic agriculture is not some sort of agriculture that depends upon a middle European herbalist, who presented us with these oddball preparations, some of which are made in cow horns, using cow manure and that sort of thing. It is from a person who developed the ability to see into spiritual worlds; beyond this realm of the physical. But Steiner did so with such a thoroughness and such an exactness that he gave us the possibility of doing so for ourselves, i.e.; in books such as *The Knowledge of Higher Worlds and its Attainment*. Steiner gave over 6,000 lectures. Perhaps by now, I have read some 2,000 of these lectures as well as some of his basic books. I have read all of this with diligence in order to try to understand what he was saying to us in the *Agriculture* course. This course is called by many quite familiar with Steiner's work the most difficult of his lecture courses.

I think the first thing, totally unassociated with agriculture, that I would like to bring to your attention, one of the ideas that Steiner gave us, is what he called the Threefold Social Order (see figure 1). He gave us Waldorf education, he gave us anthroposophical medicine. He gave us an art form called eurythmy. Steiner was not just some quaint Austrian herbalist who gave us biodynamic agriculture. Steiner says in his idea of the Threefold Social Order, that the ideal organization of society is tripartite; you have a rights, or legal sphere; you have a spiritual/cultural sphere and that includes education, the arts, and religion; and you have the economic sphere. If you look at these closely enough, you get liberty, equality, fraternity, the slogan of the French Revolution. That revolution, of course, did not quite develop in the way that Steiner was referring to in his concept of a social order. Now please bear

with me while I try to relate this idea of a threefold nature of society to agriculture. First of all, however, let me describe for you a little bit about the BD preparations which constitute the most unique factor about biodynamic agriculture.

One of the difficulties in explaining biodynamics to this large an audience is that I cannot have you experience the biodynamic preparations through touch, feel, smell, or even taste. The first preparation is BD #500, or HORN MANURE. It is made with cow manure in a cow horn. The BD #500 is buried during the winter months.

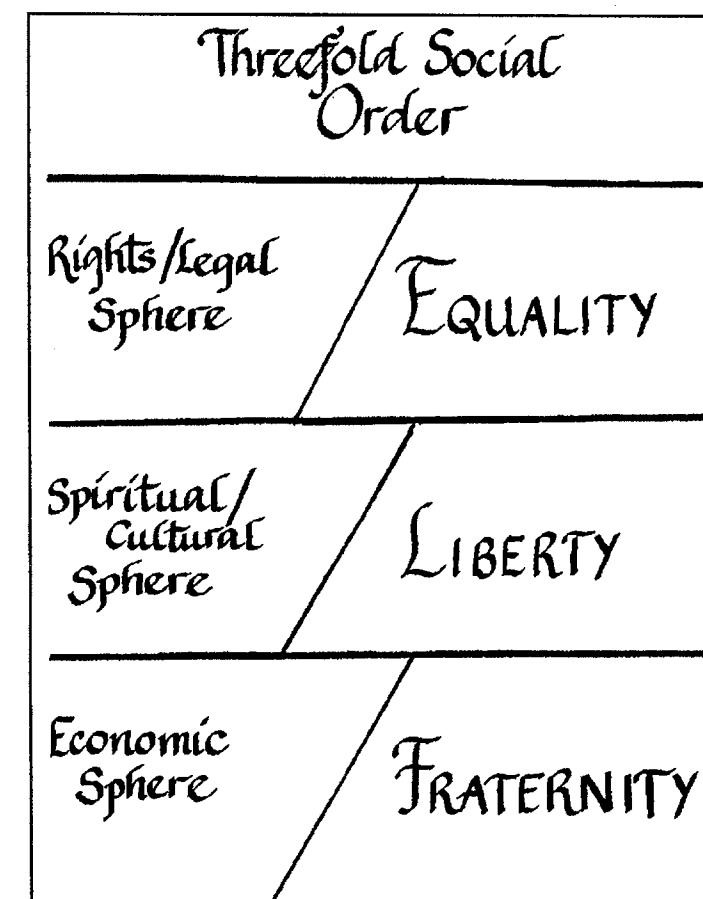


Figure 1.

The second preparation is BD #501, or HORN SILICA. This preparation is ground quartz or other silica material, moistened, and placed also in a cow horn and buried during the summer months. For the next group of preparations, we take certain herbs and we make a set of six preparations that are known collectively as the compost preparations, BD #502 through 507. For BD #502, we use the yarrow flower. We take the yarrow flower, clip it, moisten it with a yarrow tea, and stuff that into a bladder of a stag, or a buck bladder, and hang it up in the summer sun. When fall comes we bury it to let it spend the winter in the earth. A year after we stuff the bladder, it should be ready for use when we dig it up. For BD #503, we take the chamomile blossom and we stuff it into bovine

PREPARATIONS (continued on page 4)

Bio-Dynamic Preparations

BD 500	Horn Manure	Known collectively as the BD Compost Preparations
BD 501	Horn Silica	
BD 502	Yarrow	
BD 503	Chamomile	
BD 504	Stinging Nettle	
BD 505	Oak Bark	
BD 506	Dandelion	
BD 507	Valerian	
BD 508	Horsetail Herb (<i>Equisetum Arvense</i>)	

intestines, or guts, and bury it during the winter months. It's kind of gory sometimes; strange stuff, folks. The stinging nettle preparation, or BD #504, is simply buried in the earth between layers of peat moss; you let it spend a winter and all the way through the following summer after you have initially buried it. The stinging nettle changes considerably in its appearance during this process. The oak bark preparation, or BD #505, is prepared by taking ground up oak bark and placing it in the skull of a domestic animal, say a cow or sheep. It is then buried in a kind of wet, marshy place, and allowed to spend a winter in the earth. It is through reading a book called *Agriculture of Tomorrow* by Lilly Kolisko, that I have come to understand that one should use a fresh skull; pretty much straight from the slaughter house, and that's a bit gory. And then we have the dandelion preparation or BD #506. Once again the substance (the dandelion blossoms) is moistened, and stuffed into a little pillow that we make out of the membrane called either bovine mesentery or bovine peritoneum. (It's the membrane that holds the intestines together and the cow's organs in the chest cavity.) For BD #507, something nice and simple, we take valerian, and we press the blossoms to make a juice. And we take those six preparations after they are completed, and we take just a very small amount of them, approximately more or less one teaspoon of each. And this set of six biodynamic preparations, and we use all six, is inserted in a compost pile. The pile can be as small as one ton or as large as ten tons. And if I have done my job right in making them, and if you have done your job right, and properly built a compost pile, these six preparations will make some of the finest compost that you will ever see.

The next preparation to be considered is the HORN MANURE. One fourth cup is enough horn manure to treat one acre. Just stir in enough water to cover that acre; but, and this is a draw back for many, you stir this in a prescribed manner for one hour. In addition, we carry a product called BARREL COMPOST (BC), and refer to it as the Thun recipe after Maria Thun who originated the recipe. This is a spray form for applying the compost preparations when you don't have your biodynamic compost ready yet. And, because of the process that Maria Thun developed, you only have to stir for 20 minutes. Nevertheless, you still have to stir, and it's a particular kind of stirring for all of the spray preparations. You stir so as to create a vortex, a deep hollow in the container, and then you reverse, creating chaos; and then create another vortex. And so, you keep doing that back and forth for 20 minutes or one hour, depending on which preparation you're stirring.

Another biodynamic preparation is the HORN SILICA. One half teaspoon by volume, also stirred for an hour in water, will treat an acre. It's usually regarded as a foliar spray. The other preparations are intended for soil application.

The final preparation, BD #508, is simply the herb horsetail, or *Equisetum arvense*. You take a heaping cup full and you make a tea of it; there are a couple of different recipes. Horsetail is generally regarded only as a fungus preventative, however, in my experience I've come to regard it as much more than simply for fungus. The #501, HORN SILICA, can be said to stimulate the light effect, to regulate it. The #508, as I see it, regulates the watery element. Those who use #508 to the extent that I would suggest, may never have a drought problem.

Now, in my experience, I tried to come to an understanding of the preparations, and in one place Steiner tells us we should regard these preparations, not as substance, not as physical substance in the NPK mind set that we have, but as forces or perhaps, better said, as carriers of forces. And so I have attempted to do just that.

(This article will be continued in the next issue of the JPI newsletter).



Horn Silica

influence physical substance directly impacts on how one assesses the nutritional value of a food, the merits of a growing



Stinging Nettle

method, and the possible therapeutic benefits of a particular food. For one schooled in the thinking patterns of modern science and nutrition, the inclusion of this broader perspective is as challenging a task as many a conventional farmer would have in making sense out of biodynamics. The prevailing bias in modern scientific thought, which is the foundation for nutrition theory, is mechanistic and relies heavily on how things work in the non-living world. When we are talking about living entities, such as cows, vegetable crops, and human beings, different laws apply. Carefully controlled experiments that take place out of the context of life have taught us much about how substances react in these settings. Oftentimes these results are then used to predict a similar response in the living realm. However, a tool, or a scientific theory, specifically designed to be used in one situation may not be appropriate to use in another. For example, equipment used to harvest grain crops will not be of much help if you want to build a barn. Or, just as Senator Al Gore in his book, *Earth in the Balance*, describes how decision-making based purely on capitalistic economics (as a tool) has distorted our relationship to the Earth and jeopardized its ecology; I would say that our culture's preoccupation with the caloric value of foods (as another example of a tool) is inappropriate and actually helps to distort the way we view our own life processes as well as our relation to outer Nature. Something essential is overlooked in both cases.

The possibility does exist to re-establish a more accurate understanding for how, and by what means we are nourished, as well as to consider what role our nutrition plays in our higher capacities of thinking, feeling, and willing. I am convinced that this begins with a new look at the natural phenomena around us including the growth of plants, the change of seasons, the transformation of elements in Nature, as well as the body, soul, and spiritual dynamics of the individual. In addition, the issue of nutrition is not complete without considering the larger community and society we interact with.

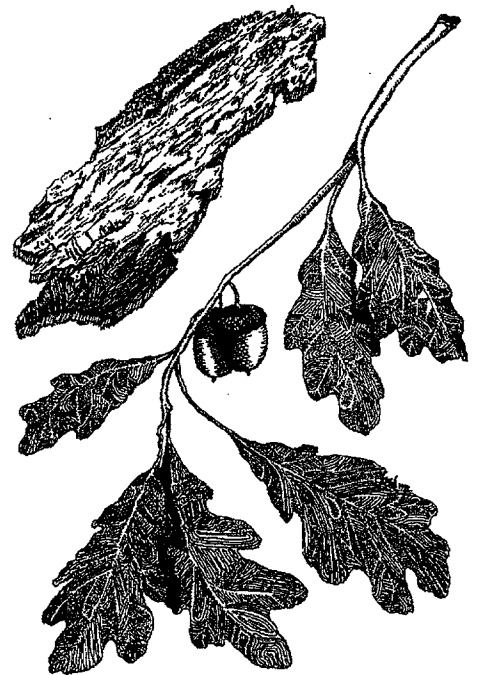
Those of us who have been trained to think along with the majority of the Western world, can begin with the premise that we are spiritual beings who have taken on physical

substance, and that an understanding of the supersensible forces that stand behind the physical world will enable us to explain the phenomena we observe. It is only from this perspective that the contributions of biodynamics can be appreciated. Skills gained in the scientific method can ensure that we remain "grounded" in these pursuits. Those whose backgrounds have not been so strongly influenced by the materialistic bias of our times may even have some advantage.

When we can take a fresh look at the world around us; resist the habit to take things for granted, observe events without letting our preconceived ideas get in the way, we are making a start in the right direction. These are small but significant steps towards placing nutritional studies within the framework of an anthroposophical world view. In addition much can be drawn from the wisdom of older cultures, including Native American, Asian and Indian, that have shared a spiritually-based outlook. The goal is to create a bridge between considerations that are solely spiritual in nature and those that are solely material to fill the gap that exists in the theory and practice of agriculture and nutrition.

The foundation has been laid and now the work needs to proceed. Future columns will look to include the works of formal and not-so-formal, but equally valuable, research work with a bearing on nutrition.

Betsy Cashen has been asking questions about human nature, metabolism, and food since her studies at Cornell University where she received a B.S. degree in nutritional sciences. She is currently working as a Registered Dietitian in an anthroposophical medical setting, and in a public health agency. For the last three years she has also worked part-time as an assistant gardener with Roxbury Organic Farm, a biodynamic vegetable operation serving communities in New York City and Albany, NY.



White Oak