

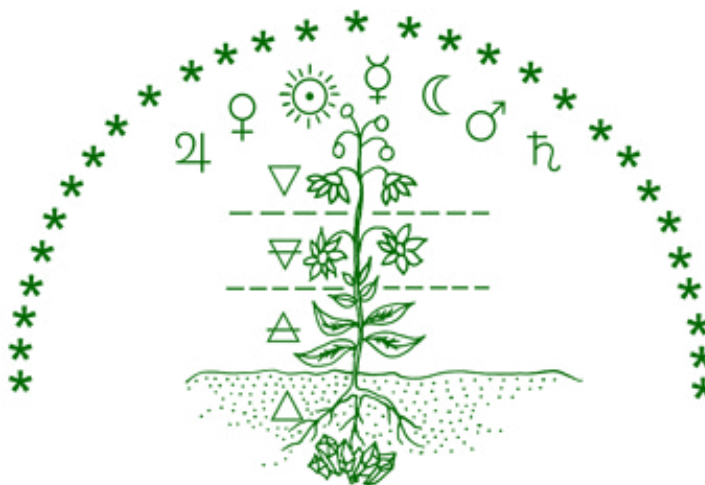
NUTRITION AND HEALTH

Biodynamic Cooking, Nutrition and Food Handling

WHEN IT COMES to eating, human beings have lost the sureness of instinct that marks the animals. This is so because the human being has evolved out of the intimate connection with nature that characterizes beings still closely tied to the macrocosm. Primitive people seem to have much more sense when it comes to eating. This is so because food practices are regulated by complex traditions, taboos and rituals that were evolved at a time when human consciousness was much more closely tied to its spiritual origins, the macrocosm. Modern human beings, if they rely on their “instincts,” overeat and become obese, become hyperactive and rot their teeth due to excess sugar intake, damage their nerves and circulatory system by taking too many stimulants, create sluggish stool by eating too many soft, processed foods, and help no one except their doctors. Growing a nice garden is not enough; we must become conscious of what we ought to do with the produce.

What is food? All foods are derived from living organisms. Man, with all of his technology and long years of research, has not been able to create one single lettuce leaf. All food, including animal substances, is based upon plant life. “You live because we live!” the plant admonishes us in a

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Plants are the handiwork and repository of stellar and planetary energies. The four elements, represented by triangles, are correlated with plant anatomy. In ascending order: earth-root, water-leaf, air-flower, and fire-fruit. Planets can be grouped in right-left pairs.

quiet way every time we take a bite to eat or draw a breath of air.

What is it that the plant does, in that it becomes food for other living organisms? One can set up the equation of assimilation and photosynthesis in which 12 parts water (H₂O) and 6 parts carbon dioxide (CO₂), in the presence of sunlight, warmth and certain catalytic minerals, yield sugars (C₆H₁₂O₆) which can be converted to starches and lipids, and yield oxygen (O₂) and water. A more goetheanistic way of looking at this is to see how the plant organism can combine the “dead” elements—earth (soil), water, air (carbon dioxide) and fire (light and warmth)—and, in combining them, vitalize (L. *vita*, life) them. The energies that bring these elements together in an orderly form are cosmic energies, as they come to us primarily from the sun, but also from the moon, the planets and the stars. Thus when we eat a plant (and all food is ultimately plant), we are eating the entire universe, that is, the elements as they are arranged by cosmic impulses. One can say that the plant captures celestial life and fixes it into a physical form using the elements. When we eat, we take

that celestial life into ourselves and it becomes our own life.

Actually, eating food is only one form of nutrition available to us. Breathing fresh air nourishes us, as do all the impressions that pass our senses. A

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garden is a source of health not only because of the nutritious food it provides, but also because of the fresh air, and the sights and sounds that nourish body and soul.

We transform the macrocosmic, celestial, and terrestrial impulses, by means of the process of digestion, into microcosmic impulses. Our digestion breaks the substances down completely and releases the forces that had been fixed into them. Animals use these forces for running, springing, frolicking and giving expression to their astrality. The human being does this, too, but takes it a step further, using the energy to think and reflect, to intuit and imagine, to speak and to love. He has the free will to decide what to use these energies for that the plants have given him; to do good or to do works of evil, to give of himself, like the plant, or to self-indulge.

In order to have the cosmic energies available to carry on a healthy culture and sustain the life of our body, soul and spirit on earth, we must see to it that we have the right kind of food—food which comes from plants that have been grown under the best natural conditions and which is eaten with only minimal loss of vitality through cooking and preparing. Inadequately grown food and badly cooked food will not only harm the body, but make it impossible to think, feel and will in a holistic

manner...[I]f current developments continue, the time will come when people will starve at a fully-decked table, which seems entirely possible with our denatured, processed food.

With this as a background, we can see how biodynamics has vital consequences for the future of humanity. In order to have the right kind of food that fully supports our thinking, feeling and willing functions, we must have foods full of vitality. This starts, for one thing, with healthy, living soil...But the proper soil and growing techniques are not enough; our cooking must not devitalize the food. Loss of vitality can be incurred during: a) storage, b) processing, c) cooking, d) eating, e) seasoning.

Freshness

The fresher the food, the better, the more etheric properties are available. Leaf crops are best harvested in the morning hours as the vitality rises with the sap into the plant in the morning hours in its daily rhythm. Root crops are best harvested in the evening as the vitality draws into the roots in the “in-breathing” phase of the daily cycle. Plants, as living organisms, are constantly changing and growing. Never are they exactly the same. Alan Chadwick states that a fruit is ripe only for one moment; before that the fruit is still green and

	Fresh	Whole	Vitalized (Alive)
Ripe Apple	+	+	+
Fresh Carrot	+	+	+
Carrot Juice	+	-	partial vitality
Preserves			devitalized
Refined Sugar			Mineralized (Dead)

ripening, and after that, it is already starting to decompose. Thus vegetables, especially fruits, must be picked at the right moments. Plants that have been picked a long time previously usually wilt and eventually rot, and even if artificially preserved, will not be able to transmit vitality well.

Processing

The Swiss nutritionist, W. Kollath, emphasizes wholeness and freshness as criteria for good food. By that criteria, a fresh carrot is better than carrot juice; whole wheat is better than white, processed flour.

The further away one gets from freshness and

wholeness, the closer one gets toward mineralization, the state at which substances fall out of the cycle of living matter. We have seen this falling out of the living cycle in our study of composts and manures, which are normally full of etheric and astral life, and mineral fertilizers which are quite lifeless in comparison and which are salts, dead end-processes fallen out of the living cycle. Studies with rats show that whole wheat grain keeps the animals healthy; ground wheat is not quite as good, and modern processed flour will eventually lead to the animals' demise. Modern milling techniques remove bran and germ, leaving the flour so denatured that synthetic nutrients have to be added to create fortified flour. In earlier times, it was possible to keep prisoners healthy on bread and water, but today, because of the mismanagement of the soil and the processing of the flour, the poor prisoners would starve. Like flour, sugar is devitalized by excessive processing, causing tooth decay and a host of other problems. Good sweeteners are honey, malt, molasses, date sugar, or fruits.

Loss of wholeness results from unnecessary peeling, skinning and grinding of the vegetables. Often most of the vitamins are in the rinds and skins.

Canning has become a popular way of preserving foods for the winter months. It goes along with the pioneer mystique that many modern "folksy" people are trying to recapture and it takes a lot of work and ruins many of the nutrients. Rather than canning, winter gardening and storage of whole foods, roots and tubers in the root cellar is perhaps a better way to go.

Of course, pumpkins, squashes, onions and a number of fruits can be stored for the winter, also.

Given all of these plants, one can achieve a good, wholesome variety in one's winter diet without relying on processed, canned, or imported

foods. Perhaps the only canning that needs to be done is to save some of the good summer fruits such as strawberries, raspberries, and blackberries, which make a delicious winter treat. Eating the fruits and vegetables in their season keeps us aware of the rhythms of the macrocosm, supplying us with the etheric energies we need at specific times of the year. The experience of a stronger connectedness with the forces that pervade our garden will be ours if we follow the plant cycle in our diet into the root, bud and seed in the winter months,

enjoy the tonic of greens in the spring, and round out the summer and autumn with ripe fruit and seed crops.

Although as human beings we have greatly emancipated ourselves from the dictates of the cosmos in the course of evolution, we still respond to the seasonal cycles, such that we become

more inward, reflective and indoor oriented in the winter and we become more open to the outer world when the days lengthen.

It goes without saying that cooking is one of the most important parts of food preparation. It is proverbial that food should be cooked with love in order to become us well. The Chinese, with family farms of a few acres, not only grow their food intensively, but know not to ruin the food through excessive cooking. They steam and quick-fry with very little flavor or nutrient loss.

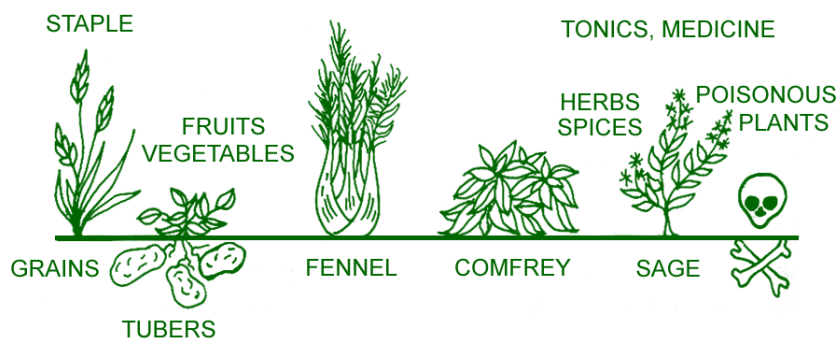
Steaming is one of the best ways to prepare vegetables. The water collected in the steaming pan should always be saved, for it contains most of the water-soluble vitamins. This water can be served as a soup, flavored with minced herbs, butter, egg, soy sauce, nutritional yeast, or whatever is preferred.

Different processes of food preparation unlock different nutrients. In Aigues Vertes [largely self-sustaining Swiss handicap community near Geneva] this was taken into account by steaming or cooking two-thirds of the vegetables and quick

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frying the other third in vegetable oil. (It is important to add water occasionally during the frying process to keep the oil from heating too much.) The cooked and quick-fried vegetables were always served around a staple such as rice, millet, barley and other grains or potatoes. Some salads made of lettuces and of raw vegetables provided the fresh greens with the meal, or were served as hors d'oeuvres along with sprouts (wheat, lentil, bean or alfalfa) in the winter. A diet of this nature, along with an assortment of herb teas, kept the people of the village extraordinarily healthy.

Important is the idea of a staple. A staple (AS.



stapol, post or pillar) is a total food containing all the nutrition needed by human beings; it is the “daily bread,” the “staff of life,” the food wherein all the elements are balanced according to macrobiotics. All cultures have had their staples, and for most societies it has been a grain, though for some people in the southern hemisphere the staple has been a tuber (yam, taro, manioc, potato). The great civilizations of the East depended on rice, the American Indian on maize, Africa largely on millet, West Asia and the Mediterranean basin mainly on wheat, while the colder countries depended on barley, rye and oats. The grain plant, rooting firmly in the earth, stretching its ears toward the sun and sacrificing abundant leaf and flower development, is truly the nutritional foundation of human civilization. Modern people, especially 20th century Americans, tend to forget this and prefer the trimmings (meat, vegetable, fruit) to the staple. (Compare American pizza to Italian pizza.) This can have an unstabilizing effect on human health. One can indicate the distance of a food from the staple by a continuum in the following manner:

Any grain, such as wheat berries, barley, rye, etc. can be soaked overnight for softening (lunar process) and then slowly cooked, simmered to simulate a continuing ripening process (solar process). Other foods are served in combination with this.

Some of the cooks in Aigues Vertes made sure that the “whole plant,” meaning some root, some leaf and some fruit or seed, was eaten every day in order to provide wholeness for the human organism. The rule of thumb is that roots stimulate the head and nervous system, leaves the respiration and blood circulatory system and the flowers and fruits affect mainly the metabolic and limb system, whereas the staple has an overall balancing effect.

Foods should not be overcooked, which leads to loss of vitamins and decreased salivation due to lack of chewing, which in turn creates weak digestion, constipation and eventually loose teeth. Loss of flavor results also from overcooking, creating a need

for strong spices, pepper and salt, with the possible effect of constipation and kidney damage.

Good Food Habits

A meal must look, smell and taste good for it to be becoming and worthy of the long process of growing. We do not just eat with our taste buds but our eyes have a part in the feast. Our other organs “taste” the food also, it is just that this “tasting” does not reach the threshold of consciousness. If the other organs do not like the food, they make themselves noticed in the form of heartburn, indigestion, fatigue and even sickness. An aesthetic atmosphere with flowers, a tablecloth and pretty serving dishes aid in this sensible taking in of the meal. Traditionally, a prayer before and after the meal has created a sacred temporal space at meal-times. A brief meditation of following with one’s mind’s eye the path of the food from where it came to how it got on the plate and what all was involved, connects the meal with the greater parts of the universe. Course choices and variety (e.g. raw food appetizer, soup, main meal and dessert)

are provided by the many cultural traditions of food preparation.

Seasoning

Locally grown herbs can substitute for harsh spices. They create a delicate palate of flavors that go excellently with bio-dynamically grown vegetables. Harsh spices (which numb the taste buds to more delicate flavors after prolonged use), the overseasoning with salt, pepper, sugar, ketchup, or soy sauce, is usually due to the lack of flavor in chemically grown foods, as it is to processing, overcooking and long storage. For organically grown foods one needs merely to accentuate the innate flavors.

Herbs used as seasoning aid digestion, causing better saliva, pepsin, gall and pancreas secretion. They also help to balance certain one-sidedness in foods. Heavy cabbage is made more digestible with caraway seed; dill balances cucumbers; the watery nature of sauerkraut is aided by the fragrant, fiery nature of juniper berries; chervil and caraway are good with moony cheeses; beans are

In wonder workings, or some bush aflame
Men look for God, and fancy Him concealed,
But in earth's common things He stands revealed
While grass and flowers and stars spell out His name.
—Minot Savage

can be grown locally.

Storage

The problem of storage involves finding the best way to keep the ether body of the plant connected with its physical substance. One ought to use only the best vegetables for storage. They should not have received any substantial nitrogen fertilization late in the season. They should be harvested in dry weather and in the waning moon. Specific factors

involved in storage are optimal temperature, ventilation and humidity.

Temperature: Sweet potatoes, pumpkins, squashes

are warm storers (around 50°F). Cool storers (around 35°F) are potatoes, cabbages, carrots, beets, turnips, celery, oyster plant, parsnips, kohlrabi, leeks, and endives. Some of the latter can be left *in situ* in the garden in regions where it does not freeze too much.

Humidity: Onions, sweet potatoes, pumpkins, squashes, and fennel bulbs should be stored in dry places. Onions can be braided and hung in cool, dry rooms such as an unheated attic. Fennel must be stored in a dry, cool place to prevent rotting. Other vegetables prefer to be stored in a somewhat moist environment (75 to 90% humidity) as is provided by a root cellar.

Types of Storage Places

One can leave root crops (parsnips, salsify, ham-burg parsley, carrots, beets) directly in the ground where they grew and cover them with a thick mulch of straw or leaves. Mustard, spinach, cabbages, endives, leeks, kale, brussel sprouts and sugar hat can be left in the ground also, and a plastic tent can be built over the beds to protect from heavy freezes. Root crops, potatoes and cabbages can be placed into mound storage....Whatever kind of storage place one may choose, simple comparative tests will show that organically grown vegetables keep a much longer time than those grown with chemical fertilizers. The latter are usually not stored in a live form, but must be frozen or canned in order to last. □

UMBELLIFERAE	LABIATAE	OTHERS
Anise	Basil	Borage
Chervil	Oregano	Chives
Fennel	Mints	Horseradish
Dill	Sage	Tarragon
Caraway	Marjoram	
Coriander	Thyme	
Parsley	Rosemary	
Lovage		

accentuated by savory, and tomatoes are complemented by basil and parsley....Most spices bring cosmic forces into the terrestrial-lunar nature of some vegetables. Spices of the umbelliferae family show especially the effect of light and warmth ether in their delicate, lace-like leaves and aromatic seeds. The labiatae, or mint family members, retain much of the aromatic flowering processes within the realm of the leaves, leaving them aromatic, full of essential oils. All of the preceding list of herbs