

North Country



Food Coop

For the community.

By the community.

September 2008

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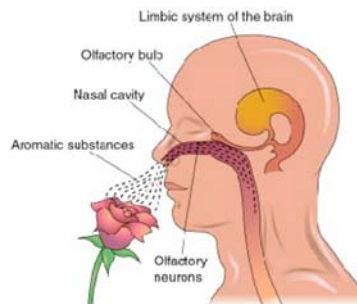
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A Scent Shall Heal *Linda Marie Hill*

The incredible blooming of summer flowers and plants awakens a deeper appreciation for their healing qualities. Aromatherapy is an art, science and healing technique that connects with all aspects of a person's being. The essential oils used, work primarily in two ways.

Essential oils can be likened to peptides, since they work as chemical messengers. Their fat soluble qualities allow them to penetrate the blood-brain barrier. The ability to enter the blood stream allows full penetration of all cells in the body. The effect on the limbic system and the central nervous system is very powerful.

These amazing natural healers facilitate communication throughout all systems of the body. The peptide nature of essential oils, transmits ancient healing chemical messages, bringing balance and harmony. As these complex chemical messengers travel along the neuron network they work their way to the hypothalamus. This is like a flight control center. The stimulation can effect hormone distribution in several ways. For example, the pituitary gland could be directed to distribute ACTH, noradrenaline could be stimulated for energy and activity, encephalin could



be stimulated from the thalamus as an antidepressant and/or pain suppresser, or serotonin may be released to alleviate hypertension and stress.

Elizabeth Jones, the founder of the College of Botanical Healing Arts, explains the effect of aromatherapy on the endocrine system and the immune system in an article in *Aromatic Thymes*. According to Jones, aromatherapy effects the endocrine system by stimulating hormone production. For thyroid imbalance, she would prescribe garlic to balance excessive thyroxin. Another recommendation is the use of juniper and eucalyptus to balance insulin and blood sugar levels.

There are many essential oils that can balance estrogen. Oils of sage, fennel and anise can be used for difficulties with menstruation, lactation and menopause.

Jones presents significant evidence of the effectiveness of essential oils on the immune system. Since the immune sys-

tem begins with the skin, massage with essential oils naturally strengthens and fortifies this protective barrier.

The inflammation that occurs from injury is termed the second line of defense. There are many anti-inflammatory essential oils, such as chamomile, coriander, fennel and juniper.

Jones reminds us that essential oils also have valuable antibacterial and antiviral qualities. "The antiviral action of essential oils such as the Melaleuca family (tea tree and niaouli) is especially important since allopathic medicine has little to offer against viruses."

The bottom line is that essential oils have much to offer the immune system. Rosemary, tea tree and clove bud can be blended for immune system support.

Jones says that 10 drops of this blend in the bath can "enhance leukocyte activity".

Many essential oils work to stimulate a sense of well being. When the mind and emotions are raised to positive levels, the effect carries over and is transmitted throughout the physical body.

This is a fascinating field filled with potential. We are just beginning to recognize and scientifically verify the medical applications. Perhaps by slowing down to assimilate ancient wisdom we may recognize the meaning of the Aqarian Gospel, "And when the harpsichord of man is out of tune the vast expanse of nature may be searched for the remedy".



DeFayette Days

Would you rather have a nice rug, or starve?

It is the most worthless of human activities, a human hamster wheel, a zero-sum game. It is a major contributor to global warming, the filth floating on Lake Champlain, and arguably, even the war in Iraq. Your neighbors do it, your co-workers do it, *you* may even do it: Lawn maintenance: grass growing and grass cutting ad infinitum, ad nauseum.

When we were kids, we *knew* better. We had to be bribed (or, in more extreme cases, beaten) in order to summon the will to partake in this most pointless of adult activities. Then we grew up, and we stopped questioning authority, and fell in line with the rest of the lemmings on their way to the chopping block. Maybe we even became obsessed with our lawns, pooling all of the anxieties of the day into a very special moment, down on all fours, snipping away with hand scissors -- a cowlick of grass enough to disturb one's blood pressure. Okay (ahem), maybe it didn't get that bad for most of us, but still, we mow that grass.

If I haven't made my point yet, a little history lesson may be in order. According to sometimes historian, H.C. Flores, French aristocrats popularized the idea of the lawn in the eighteenth century when they planted the agricultural fields around their estates with grass to send the message that they had more land than they

needed and could therefore afford to waste some. Meanwhile, French peasants starved for lack of available farmland. Shortly thereafter, the guillotine was invented, and the 1789 revolution put it to frequent use.

So here's a radical idea that's beginning to take root nationwide: Food not Lawns, sometimes fashionably referred to as "edible landscape." This movement instructs us to pull up that non-digestible cellulose and put down some seeds in its place. If you're going to do all that work mowing, watering, and fertilizing, why not get something back -- something you need: Food. Sure, your neighbors may want a word with you, but stick to your guns and tell them you want fresh food instead of grass. Then, share your harvest (not just your overgrown squash) when it comes in.

This summer, my landlord was kind enough to let me and my girlfriend dig up a big section of our backyard, and now we have food -- lots of it. It's like a miracle -- before we had this worthless turf that was a pain for our landlord to mow, and now we're eating fresh food each night. The choice is clear.

So, with this in mind, and fall coming down the pipeline, it's time to start thinking about your spring "Lawn Removal Strategy," or "LRS" for short. There are lots of ways to do this -- I went at mine with a pickaxe for a few weeks, but there are easier ways to do it. Plan now, talk to your neighbors, and come Summer '09, prepare to be lawn free. Good luck.



Today, fifty-eight million Americans spend approximately thirty billion dollars every year to maintain more than twenty-three million acres of lawn.

This is not a cool group of people.

Tofu Rebellion *with Patwa*

Our objective, as per the co-op bi-laws, is to provide healthy food at the lowest price. The co-op principals tell us that we're about open and fair democracy, supporting locals, and trying to be an example of an alternative in this world that needs to change. When we bail out Fannie and Freddie (they are corporations, not people!) and yet ignore the troubles of Joe and Martha (they're people, not corporations!) we need to change. When food is a commodity that makes futures traders on Wall Street wealthy while people starve, we need to change. When this corrupt and greedy capitalist system benefits the health and welfare of the wealthy few at the expense of the well-being of the people as a

whole, change is in dire need.



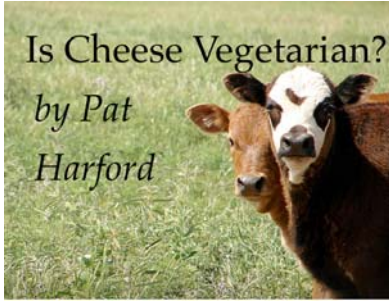
Thinking about making these changes is frustrating, given that those in

power seem impervious. That leads back this co-op, and co-ops across the nation and world, for it is our local avenue of change, for reasons stated above. On an individual level, as workers, members and customers of this co-op, we each face the responsibility of maintaining this co-op, and all that it represents. For me that begins with giving a part of myself in exchange for being a part of the hive, if you will. Though this is "My" co-op, I am just a part owner, and can contribute the best of my abilities to make it successful.

This does not necessarily mean maximized profits, though we do need to make money to improve on what we do. The essential advantage of this co-op ethos is that people come before profits, and that once the mission becomes a shared mission, we can all benefit. That is why each day when I come to work I ask myself, "What can I do to make this co-op better for all?". This together with the prime objective and principals above makes my actions clear and unambiguous. I work for you. I work for us. I work for the North Country Food Co-op. Yay for us.

Is Cheese Vegetarian?

by Pat
Harford



I love England. Land of my birth, Disneyland for history buffs and best of for me as a lacto-ovo vegetarian for the last 30 plus years: “veggie safe” labels on everything from frozen dinners to candy; yes, even for candy we have to ask “where’s the beef?” I knew about this but was sad to see just how many of my childhood favorites had no “veggie safe” sticker on them.

I stayed with my cousin for two weeks this past May in my mom’s hometown of Kings Lynn in Norfolk. She is a wonderful host and worked overtime to make sure my food was exceptional and vegetarian. Given this I felt really bad when she e-mailed me that she was confused. Another lacto-ovo of her acquaintance had refused her offer of Parmesan cheese. Hadn’t I used it when she offered it to me? What on earth could be not “veggie safe” about cheese!

I knew about rennet. Of course I did but like the teenager who chooses to believe you can’t get pregnant your first time I chose to believe the myth I was told years ago that you could tell a cheese with animal rennet because it has that orange color around the edge. This marker along with someone else’s hopeful offering that alternatives existed and if we didn’t question we could be sure that the cheese we ate MUST have the alternative. Time goes on and I honestly can’t remember the last time I even thought to question.

Soooooo if you want to remain in the dark, and believe me, part of me wishes my cousin never sent the e-mail, stop reading now.

Animal rennet, according to several articles on the Internet, is an enzyme produced in the stomach of animals that is harvested after death and used in the cheese making process. You can look up the particulars for yourself in gruesome detail just Google “cheese, rennet”. What I am most interested in is opening up a discussion on labeling or the lack thereof. Lots of cheese is veggie safe and lots aren’t. It is really difficult if not impossible to find out if it is or not. Most cheese, as far as I can see, just says “enzymes” and that could be animal based or not.

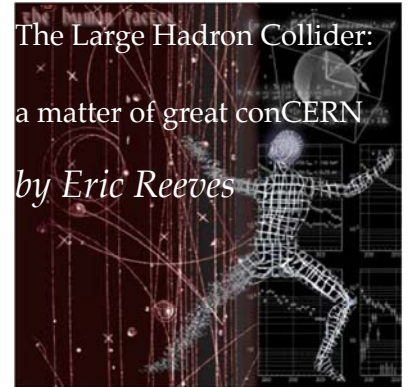
Wow!!!! Eating out just got too complicated to even think about!

I was able to get some measure of help from the North Country Coop. My main staple, Mozzarella, research had shown to be made with non-animal based rennet but my beloved asiago always used animal based rennet as do most of the hard cheeses. The Coop has a line of cheeses from Clover Hill Farm that are clearly marked “vegetarian enzymes” and they even have a hard cheese called “Adirondack” that makes a passable substitute for asiago.

Any one else bothered by this lack of labeling? Anyone with more information to add to the discussion, anyone else questioning why the English are so far ahead of us in this? I invite you to write a response for the newsletter of get a hold of me at pat-the-builder@hotmail.com.

The Large Hadron Collider: a matter of great conCERN

by Eric Reeves



Since the dawn of humanity we have sought to improve our understanding of the big picture, to make sense of our own existence: where did we come from? How was the universe created? How does it work, and why? The cosmos is all that ever was, all that is, and all that ever will be. We, as human beings, are inextricably connected to the cosmos in the deepest ways: the heavy elements that compose our bodies were forged through nuclear fusion in the cores of stars billions of years ago, only to be scattered into space, lumped together by gravity into more stars and planets, and arranged into increasingly complex patterns through the process of evolution. Our pattern happens to be complex enough that we have the ability to comprehend our own existence, and to create theoretical models of the universe through our own terms and logic. In other words, we have the fortune of being a means through which the cosmos may “know” itself. Using the scientific method, these theories may be tested and improved upon through experimentation and demonstration. With the aid of technology, we have constructed increasingly complex experiments to reach an increasingly accurate picture of the fundamental laws of nature. Today, the largest and most powerful experimental device to ever be constructed is nearing com-

pletion. It is the Large Hadron Collider, a machine that brings us face to face with some of the deepest mysteries of the universe that until recently, were treated only in religion and myth.

17 miles in circumference and buried 175 meters underground, the Large Hadron Collider is essentially a massive ring-shaped tunnel located on the border between France and Switzerland. Its \$8 billion construction has been ongoing for the past 14 years, under the direction of an international team of scientists known as the European Center for Nuclear Research (CERN). The LHC is a particle accelerator: it will propel atomic nuclei (hadrons) through the enormous ring at near-light speeds. The hadrons must not only be accelerated to incredible velocity but also held in a stable orbit to an absolutely extreme degree of precision. This task is accomplished through the use of thousands of super conductive magnets, which must be kept at close to absolute zero temperatures through the use of a liquid helium cryogenic system. Once the particles are accelerated to maximum speed, they will be traveling the entire circumference of the ring in under 90 microseconds. Then the magnets are used to set them on a collision course, smashing the tiny particles into each other at energies equivalent to the detonation of 380 pounds of TNT – concentrated within a space the size of an atom. In the instant of collision, protons and neutrons will be shattered into their various smaller components – quarks and other incredibly tiny particles which are normally held together by a force so strong it can only be broken in conditions such as those created in the LHC. Then several different kinds of massively complex and sophisticated machines called particle detectors will essentially take a "snapshot"

of the moment of collision, allowing scientists to observe the quality and behaviour of the resulting subatomic particles. The difference between the LHC and particle accelerators of the past is it's huge size and unprecedented power – allowing the most detailed picture of the quantum world to date.



By smashing particles together and taking a "picture" of the resulting mess, we glimpse into a realm of reality previously forbidden to us – the realm of the quantum. The hidden secrets of the fundamental workings of nature lie hidden within this realm, because we may study how matter itself is constructed, and observe the fundamental forces which govern the interaction of all things. By conducting experiments with the LHC, scientists at CERN plan to test the limits of the Standard Model, the current theory of physics which attempts to explain the fundamental interactions between the elementary particles of matter. There are still many questions left to be answered before the Standard Model is a complete explanation

of the fundamental forces of nature: in particular, we have yet to explain why gravity exists and how it relates to the other three forces – the electromagnetic (light and heat), the weak nuclear (which makes the stars burn), and strong nuclear (which holds quarks together and allows matter to exist) forces. We may come closer to answering other important cosmic riddles as well: what is the nature of "dark matter"? Do extra spatial dimensions, predicted by certain mathematical models to exist folded in upon themselves at the quantum level, actually exist? Will new measurements of the mass of quarks remain consistent with the Standard Model? Do particles in fact gain their mass from a mechanism involving the mathematically predicted but as-of-yet unobserved particle known as the Higgs boson? In addition, by observing the interactions of particles on such an extremely small scale, we are essentially turning back the clock to the first nanosecond of the existence of the universe itself, when (as predicted by the big bang) the entire cosmos was compressed into an incredibly hot point smaller than an atom, and the laws of quantum physics reigned supreme. Today, we look around us and the universe is obviously very asymmetrical – there are large clumps of matter (galaxies and stars) separated by vast tracts of virtually empty space. Why is this so? If the universe was indeed birthed from a single point, why didn't it expand in a perfectly uniform fashion? To answer this question, we must try to postulate the "initial state" of the universe, and perhaps even how the universe could have created itself based upon the laws which govern this state – which requires a clearer picture of the laws of quantum physics than we currently have. The LHC will now provide us with a slightly sharper window into this realm, and bring us

one step closer to answering the deepest mysteries of the origin of the cosmos.

It is understandable why many people, myself included, are rather excited about the completion of this machine, currently scheduled to begin operational testing by September 10th, 2008, and the first actual experiments scheduled before the end of the year. However, because of the unprecedented power of this machine, there is also a considerable amount of debate concerning the safety of its operation. In 2003, a team of independent scientists from the LHC Safety Study Group conducted a safety analysis of the machine, and concluded that there was no basis for any conceivable threat or danger. The team has since conducted a second study in 2008 which draws upon more recent experimental data, in which they essentially reconfirmed that the particle collisions created by the LHC are completely safe. These reports were reviewed and endorsed by CERN, and have been accepted by the majority of the scientific community. However, there are some who continue to have serious concerns - several articles concerning the potential dangers of the LHC have been published by various researchers, and seven concerned individuals (including two men from Hawaii) filed a lawsuit last March against CERN and its American collaborators in an attempt to halt the operation of the LHC, though the suit was ultimately dismissed in light of the findings of the LHC Safety Study Group's most recent report. A second suit, this time from the European Court of Human Rights in Strasbourg was filed against CERN very recently, on August 26, with similar complaints of grave safety risks posed by the LHC.

Such concerns are based upon hypothetical disaster scenarios resulting

from the high-energy conditions created by the LHC. The particle collisions of the LHC are expected to create various theoretical kinds of subatomic particles, particles which are predicted to exist because of mathematical calculation but have yet to be actually observed. Among such theoretical particles is the "mini-black hole", an extremely dense particle smaller than an atom but with more weight than a mountain. Stephen Hawking proposed that black holes emit a kind of radiation, known as Hawking radiation, which causes them to ultimately evaporate after a time. Since mini-black holes are so small, they would be extremely unstable and would evaporate into Hawking radiation in nearly the same instant they were created, so that they would only exist for a fraction of a nano-second.

"If this is the case, a mini-black hole could manage to exist in a stable state long enough to rapidly consume all matter in it's vicinity and would suck the entire planet into a point of infinite density in a matter of seconds."

This is one reason mini-black holes are so elusive, and it is difficult to say whether they even exist for sure. The basis of danger concerning these mini-black holes is a very hypothetical situation in which Dr. Hawking's prediction turns out to be incorrect, that black holes do not emit such radiation, and so essentially exist for-

ever. If this is the case, a mini-black hole could manage to exist in a stable state long enough to rapidly consume all matter in it's vicinity and would suck the entire planet into a point of infinite density in a matter of seconds.

However, let us not give extra weight to such a hypothetical scenario simply because of it's dramatic scale. The counter-argument is this: that firstly, we are not sure that mini-black holes even exist, second, that if they do exist at all it is likely they will vanish almost instantaneously and we will be lucky to even glimpse their trace, and finally, that the kinds of conditions created by LHC collisions, while very high-energy compared to other artificial devices, are already created naturally in space by the collision of cosmic gamma radiation with stellar objects such as the Sun and the atmosphere of our own planet on a daily basis. In other words, if such a disaster could be created by the LHC, it should have already happened long ago due to natural phenomenon - and this was the conclusion of the LHC Safety Study Group's report.

There is another hypothetical disaster scenario is of an even stranger nature. Protons and neutrons, the smaller particles which compose the nuclei of an atom, are composed of even smaller particles known as quarks. Quarks are notoriously difficult to observe due to the strong nuclear force which binds them together. The strong force is the most powerful force in nature, and it becomes exponentially stronger with distance, making quarks seemingly impossible to isolate. In fact, if a group of quarks are pulled apart far enough, a new pair of quarks will actually spontaneously appear out of the vacuum and bond to the separated quarks. Such interactions have been observed in previous particle acceleration experiments and continue to remain an im-

portant mystery of quantum physics. With the LHC, scientists aim to improve our understanding of quarks by attempting to measure their properties and behaviour with unprecedented accuracy. There are many different kinds of quarks proposed by various theories which have yet to be actually observed, including a heavier type of quark known as a "strange quark". It is possible that strange quarks, which could be created by the LHC in the spontaneous generation phenomenon described above, may be able to form their own kind of matter. It is hypothesized by some that dark matter may actually be composed of such "strange quarks". However, if such "strange matter" does indeed exist, it would be extremely unstable in normal conditions because of the heaviness of the strange quarks, causing them to disintegrate into energy almost the instant they are created, much like mini-black holes. However, there is an extremely hypothetical scenario in which strange quarks somehow manage to exist long enough to create "strange matter" and due to some as-of-yet unknown principle, cause a chain reaction of spontaneous "strange quark" generation which would quickly expand to consume the entire Earth in a gigantic lump of mysterious dark matter. This scenario is even more bizarre than the black hole scenario and probably even more remote, mostly because of the same reasons stated above – that not only will strange quarks be too unstable to exist for more than a fraction of a second, but that if this was indeed a possible consequence it should have already been observed in natural phenomenon such as cosmic gamma radiation collisions with the Sun and Earth.

However, though I am highly skeptical of these dangers (and apparently so is CERN), I do respect the caution

with which we must proceed in constructing such a powerful machine. When the atomic bomb was first constructed, there were a few scientists who were afraid that a chain-reaction would be created in which the nuclear reaction would never stop and explode the entire planet. Of course, this is a somewhat different situation because we are not intentionally constructing a weapon this time, but it is still important that such concerns are allowed to be voiced and considered. It is almost certain that if the LHC does in fact create mini-black holes, it probably won't matter. Though it is important to evaluate such concerns, especially considering the monumental consequence of such a scenario, they have in fact been evaluated again and again by experts, and determined by the LHC Safety Study Group to be ultimately impossible scenarios. I personally feel the only real concern at this point is a continued delay of LHC operation because of ungrounded, paranoid hysteria. Of course, I encourage readers to be skeptical towards both sides and come to their own logical conclusion. If, a few months from now, the ground is suddenly sucked out from underneath you, and you realize that an artificial black hole is consuming the Earth, you may call me to tell me how wrong I was about the safety of the LHC, and I will gladly use my last minute of existence to apologize. However, if this doesn't happen in a few months, you can be sure that the LHC is up and running quite safely, conducting experiments which will further our understanding of the cosmos.

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