

Dealing with the coming oil crisis

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April 19, 2002—All living things need energy to live. No one is closer to that simple and obvious fact of nature than farmers and gardeners even if, from a practical point of view, we don't need to think of it every day as we go about our farming and gardening chores. Still, it is energy that we need to get up in the morning to do those chores. And it is energy that our plants and animals require in order to grow and live. And it is the energy that is captured and concentrated by farmers and gardeners that enables the vast majority of people who do not grow their own food to eat and survive. All of our techniques of composting and mulching and pest control may be thought of as stratagems for harnessing and storing for our own use the energy of the sun—the only energy income that the earth has.

Organic farmers and gardeners have long understood the wisdom of treating the earth with respect and of restoring to the soil the nutrients we take from it. While the organic movement has grown in recent decades, I suspect that it has done so largely because the population at large has become aware of such issues as pollution, environmental contaminants, and the need for healthy food. While such awareness must be welcome, something even more fundamental is also involved. What has not surfaced is the profound sense in which organic gardening challenges the economic paradigm—in particular, the energy regime—under which most people think they live.

Five centuries ago, adventurers from an overcrowded Europe found what they called a New World. To them it was new, but to all the plants, animals and humans who lived here it was as old as anyplace else. The new arrivals - accustomed as they were to the intensive agricultural practices of Europe - thought the western hemisphere was empty. But it was, in fact, full. Chock full of many species of both plants and animals, as well as of humans who lived by hunting and gathering - a way of life that requires much more territory than intensive agriculture. The new European arrivals cleared the land, displaced existing species, pushed the human inhabitants to the margins and, in general, behaved the way every species or group within a species behaves as it extends its range - pushing out and expanding and taking over habitat until something stops it.

Meanwhile, the contrast with Europe's crowded lands and limited resources inspired a belief in the limitlessness of resources and helped to create a culture of exuberant expansiveness and apparently endless growth - a dangerous set of beliefs, as it turns out, in a remorselessly finite world. All this growth happened, at first, with no other source of energy than the sun that shines on plants and animals alike. The marvel of photosynthesis converts the sun's energy into the plants that we eat, or that feed the animals that we then eat. As long as we use no more energy than the sun can replenish in the unfolding of the seasons, we are probably living in a sustainable manner.

But humans are too clever for their own good and, with the beginning of the Industrial Revolution, we learned to use not only the energy of the sun harvested during the most recent cycle of seasons, but also the ancient energy of the sun, sequestered and stored deep in the earth for hundreds of millions of years. During the same expansive years in which the ideology of limitless growth and possibility took hold, something new in history became possible: humans were freed from the constraints of the annual cycle of plant growth and energy conversion. At first coal, then later oil and gas, allowed a huge increase in the amount of energy available to every human being. Quickly we learned to become dependent upon a vast range of mechanical slaves. With the aid of irreplaceable fossil fuel resources, food production and population quickly grew far beyond the capacity of the earth to sustain by its annual cycles of growth and decay. It was a trap that we devised for ourselves out of what we may call our greed, or our own dreamy wishful thinking, or simply our genetic predisposition. But however we name the reasons for it, the trap was set and has now been sprung.

The new information that is just beginning to rise over the horizon of mass media awareness is that the cheap and abundant sources of energy that sustain our civilization are about to peak in production and start a permanent and irreversible decline.

In November 2000, I published a guest commentary in the Oneonta Daily Star that started with these words: “Look around you. Unless you are reading this in the middle of the woods, chances are that virtually everything you see is there because of cheap abundant oil.” At the time that I wrote those words, I thought that if you got off deep enough in the woods, you’d be out of sight of anything that has anything to do with oil. But one day during that winter, I was loading wood into my stove when I realized that even the woods are there because of cheap and abundant oil. One only has to look at century-old photographs of the then-bare hillsides of Delaware County where I live to realize that, if we used wood for all the cooking and heating we now do with oil and gas, our forests would be scarcer than hens’ teeth and most of us might never have seen our famous autumn displays of color.

Oil does much of the work of our society; it enables us to steal from the future to enhance our own lives, and feeds most of the world. Do as I suggested and look around you! Most of what you see did get there because of oil. Oil-burning engines probably brought it to you on a road made from asphalt, a petroleum product, or perhaps it was manufactured from oil (plastics, for example, paints, fibers and detergents). Oil almost certainly contributed to the power used in its manufacture and, if it runs, it runs on power generated with fossil fuels. Our society and civilization are built upon the availability of cheap oil for transportation, for food production, for warmth, for trade and commerce.

The next decade or two will see the rapid unfolding of what must be the biggest event in modern history: the end of cheap, readily available oil. Yet, with the exception of a few responsible oil geologists and scientists, almost no one is talking about this impending catastrophe. During the last presidential election campaign, neither of the major candidates mentioned the swiftly approaching collapse and all it implies. That’s understandable; no one wants to be the bearer of bad news and this news is dreadful. Many people probably would not believe it, and few want to contemplate the appalling implications. I would rather not believe it, but it is a fact. Even the International Energy Agency, an organization of the industrial countries, based in Paris and a

clearing house of information on oil, has recently predicted that the peak of world oil production will come around 2012. Other oil analysts predict the peak much sooner, between 2003 and 2007.

The peak doesn't mean that the remaining oil will suddenly dry up. Oil wells will go on producing oil for many decades. But after peak, the amount extracted from the earth will steadily decline. When that happens, everything that now depends on oil—food, jobs, heat, travel, hospitals, medicines, growth economies, television, movies, police and fire departments, armies, schools, roads, everything, you name it—will slowly grind to a halt. Natural gas will be no substitute, as it is also rapidly being depleted. Forget the talk - much of it hype meant to boost stock prices—about alternative energies: solar power, the hydrogen economy, etc. None of these so-called alternatives can replace oil as an energy source in the way that we now profligately use it. Astonishingly, no scientific studies have been done in the public interest to determine which alternative energy strategies might produce net energy gains. The little that has been done suggests that many alternatives require more energy inputs than they generate. Those that do produce positive net energy cannot begin to approach either the power or the quantity of the oil we now use. Once the oil is gone, nothing can perpetuate the present energy-intensive way of life that we have come to look upon as our birthright.

Some of us may not be around when the last drop is extracted, but our children will be. Unless we look closely and carefully at what is coming, we'll be unable to prepare for the survival of our children and grandchildren.

What can we do?

We must use the oil that is left in the world to help create a new low-energy way of life. The only hope for the survival of our species is rebuilding communities and reordering our lives so that we work together to feed and house and clothe ourselves locally, without recourse to imports from distant places. By "distant places" I don't mean Paris and the Philippines but simply places that we cannot reach on foot, or bicycle or horse cart. It is not globalization that we need but localization, not growth but contraction.

We shall all need to grieve for the world that is passing; it is the only world we know. But tears will not save us nor will our armies (which will run out of gasoline shortly after we do) nor will frenzied drilling for the last drop. The earth is a finite sphere and holds only so much stuff. Sooner or later - the evidence suggests sooner - the oil will run out. So we must overcome our grief, teach ourselves to value long-term survival above present comfort, and find the determination to organize for what, with much wisdom and care, could even turn out to be an improvement on our present way of living in the world and with each other. We must come together in our communities and begin to talk to one another about this colossal and inevitable event. Governments can't do it for us: they are short-sighted and unable to speak the truth. Corporations won't do it for us: they are interested only in maximizing profits. Nothing will happen if we don't do it for ourselves.

What sorts of things can we do? We can start with food production. Most readers of this journal already live in agricultural areas where animal husbandry and the cultivation of crops are well

understood by many and where gardening is common. Many people are still around who remember how to farm with horses and mules. Many know how to harvest crops by hand, how to store and preserve them. Make no mistake: within a decade we'll need those skills. On a few acres, cooperating friends and neighbors can raise plenty of corn and potatoes and chickens to feed their families.

Then there is winter. We shall have to learn to heat our homes without oil. Even in the cold northeast, passive solar homes require very little energy to heat. Information on how to use such techniques needs to be disseminated. We'll also have to ensure that our forests do not vanish in a panicky frenzy of clear-cutting for firewood.

There are many other things to consider: clothing, medical care, schools, the arts. We need urgently to begin to talk among ourselves about what we can do and then organize ourselves to do it, for the changes we face are enormous and unprecedented and none of us can survive alone. This would be an excellent occasion to resuscitate service organizations like Masons, Elks, Moose, Rotary, etc. that have seen declining memberships over recent decades. Such groups can help provide the coordination and local support systems we shall need.

None of this will be easy, but we are not helpless and don't have to succumb to despair.

Where do organic farmers and gardeners fit into this? Already environmentally conscious, already aware of the unsustainability of fossil fuel-based agriculture, organic farmers possess the core of knowledge that our civilization needs to begin the inevitable energy transition.

CSAs, for example, may serve as a model for communities working together, at first to feed themselves and then, later, to look after themselves - and one another - in countless other ways.

Organic farmers already know that they must put back into the soil as much or more than they take out. That philosophy is in sharp conflict with our frantic commercial culture that clamorously proclaims the oxymoronic myth of limitless abundance on a finite planet. But the signs of increasing disaffection and disbelief are all around us, and many begin to realize that our present course can not be held. And so organic farmers and gardeners now have the opportunity to educate others and, indeed, the obligation to do so. The place to start would seem to be coming together to produce food.

Can organic farmers and gardeners save the world? That's a big burden to place on anyone but it is only the organic farmers and gardeners of the world who have the knowledge and, equally important, the understanding of the way the world works that will enable them to try.

More information on the coming oil crisis is readily available on the Internet. Useful sites with many additional links include: www.dieoff.org, www.oilcrisis.com, www.hubbertypeak.com, and www.RunningonEmpty.org. Educate yourselves and your neighbors and join together for dear life.

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