

ENVIRONMENTAL CONCERNS¹

by Richard V. Carr

Utopia is a fairy tale. It is an imaginary society in which morality is no longer a matter of good or evil; for only good will exist. Risk will be nonexistent; all creatures will live good, long lives. Divine wisdom will be the same as human wisdom. In that society we will not "be arriving"; we will have arrived. Growth will have stopped. When growing organisms cease growing they begin dying. Utopia is a fairy tale.

Concern on the other hand is not a fairy tale; it is a healthy component of human mental growth. It is active as a thought process. The magic in being concerned is to turn the activity of individual thinking into doing something in the world or transforming concern into a growth factor in human society.

Tree awareness and human survival can be thought of as integral parts of a vast system of controls, life factors that when considered together are often termed the environment. Components of this system are as varied as biodegrading micro-organisms, ambient air temperatures, atmospheric gas mixtures and the ever-present gravitational force, to name only a few. We daily discover the inter-relatedness of these factors. We cannot do something that seriously impacts one component without having the shockwave strike other elements of the system.

The system has always been subject to change. Change during most of earth's history has come rather slowly; over several million years. Then man appeared not so much *homo erectus* or *homo sapiens* but *homo manipulator*. Man is capable of conceiving within the boney prison of his skull a Utopia, but he is unable to bring that perfect society into reality. The rate of change on earth increased with man's appearance in the world and a balanced ecosystem became questionable. Balancing the environment, within moderately favorable limits, is relatively simple; exterminate man. Such attempts on man's existence, with other reasons in mind, have been tried in the past

but so far, all have failed.

In the year 2000, will one of the great human issues of the recent past have been the environment? The answer is an unqualified, yes! In this issue, the arborists and arboriculturists will have played an important role, but it may not be a role you would wish to be remembered for. You too are *homo manipulator*. Since you and I are able to manipulate the environment; the controls. What we do will be felt in many other environmental components.

According to the Utopians, certain evil shadows have allegedly been identified in our One House, our ecology. It has been said that they will destroy our environment. Chemicals, monolithic structures such as dams and highways, "synthetic" food stuffs, atmospheric pollutants are among those evils and only a few of a list of destroyers that grow with each daily issue of our newspapers. These same Utopians have warned us that these heinous evils put us at terrible risk of planetary annihilation.

The mentality displayed by this thinking shows a lack of understanding for the ecology, the environment, but most significantly, it shows a lack of concern for man's role in the dynamics of life on the planet earth. It divides mankind into two camps, the good people and the bad people, totally ignoring the complexities of the human animal and its cultural and biological relationships to the ecology.

Let us assume for a few moments that this is, after all, still a growing world. Would it not be better to work together to synergize a group expertise of scientists, sociologists, politicians, industrialists and any other necessary, pertinent expertise to build up the One House rather than tear it down with the inanity of seeking a perfect, no-risk world in which to live. This is such a child-like, simple idea that we sophisticates find difficulty in coping with its elementary nature. Who knows what might be accomplished? Surely one truth

¹Presented at the annual conference of the International Society of Arboriculture in San Diego, California in August 1979.

would emerge and that is that living persons generally desire to remain alive and rarely does anyone pursue death as a singular goal, particularly death of a living planet. Are we not all environmentalists who, even so, can hold different viewpoints; viewpoints that can be argued with presentation of facts based on scientific investigation? Must we resort to the adjudication of science? Must big government decide everything for us?

If we can attempt such a dialogue of action; if we can commit to the up building of the One House, then the arborists in this Society must be heard from. They must become visible. They will have to learn to negotiate, investigate and present the facts as they understand them. Give and take will be the rule of action. They will have to reach out and touch other Societies, other associations, other professionals and in so doing be called upon to work miracles from a position of total vulnerability.

In your mind now I can almost hear the internal, secret dialogue. What is he talking about? We are known! We are visible! He's just another politician hammering out a personal, moral thesis.

I am Director of Product Development for an agricultural chemical company. Turning technology into reality is the name of my game. Our company manufactures pesticide products, several of which are used in arboriculture. Until two years ago I was unaware of your organization. At the time I first heard of your Society I called a small number of my colleagues in other pesticide companies to find out what they knew about your Society. The answers I received were disappointing. They knew little about you. Don't let that discourage you; let it challenge you! After all, how much do you know about the pest biologists and pesticide associations, and our professional societies with acronyms like NACA, NPCA, CMA, ESA, and WSSA? Do any of these associations and societies bring familiar concepts and technologies to your minds? The point is, if we are to build together, if we are to grow with each other, if we are to insure a sound, growing, productive life system on this planet, we must begin by living in the One House together. This is one of the first steps toward our showing real concern for

our environment. Utopia is a fairy tale; it is after all undesirable. But working toward a dynamic, living world and growing toward the fullness of our potential is worthy of our personal endeavors.

Another first step can be made by moving from the age of apologetics to the age of wisdom. I can think of nothing more demoralizing than hearing someone apologize for being a scientist or technologist, a biologist, chemist, or arborist. It appears like science and technology came into this century with a bang and may, if corrective action is not taken, leave it with a whimper.

The American public, if the media are to be trusted at all, seem to have the idea that all of our current ills from cancer to a depleted energy base are the result of science and technology practiced for their own sake. Might there not be a small seed of truth in this view? I don't know. What I do know is that I am proud to be a scientist, a technologist by profession. I am proud of D.D.T. and the lives it's saved; I'm proud of penicillin and the death and suffering it has prevented. I am proud that we could harness the atom. If there is anything I am not proud of it's science for science's sake, it's technology left in isolation to be used by the selfish side of *homo manipulator*. Unsharing is akin in uncaring. The professions you and I represent must profess to sharing the upbuilding implications of our discoveries. We are morally bound as occupants of the One House to see that it remains standing.

If trees and shrubs are important organisms and if we are dedicated to that concept, then we must understand all there is to know about these life forms and their relatedness to other components of the environment. Can, for example, a thousand salt cedars planted along cotton fields in Arizona be too much of a good thing where water tables are falling each year? Maybe, I don't know. But the question shows a caring concern. When these trees were first planted as wind breaks to reduce soil erosion, maybe we should have tried to grasp the bigger picture of increasing agricultural monoculture with its demands for more and more irrigation waters and the competition for the same water by the exotic salt cedars. I don't know whether we can conceive of all of the future problems. I do know that should we decide to plant

trees in an area where they are not normally found, we must make every attempt to understand consequences that may occur beyond today. To look beyond today's needs, to plan for a better tomorrow, to push personal desires aside and seek a wider circle of interaction with the objective of building the best of all possible worlds in which to live is showing that we care. It is demonstrating that we are concerned professionals who take a great deal of pride in not only tree awareness but planet awareness. Wisdom, not Utopia or apologetics, is what I believe we all want. We are just not sure how to begin.

I have submitted to you a couple of first steps. Think about them; question them; punch holes in them if you can; but if after your examination they hold up, try them. Whether you're a basic biologist or an applied biologist we've got a lot of work to do on our planet. I'm looking forward to seeing this Society jump to the front of those who are concerned about the environment and wise enough to lead the rest of us in building the One House.

*Velsicol Chemical Company
Chicago, Illinois*

ABSTRACTS

MOORE, W.S., J.C. PROFITA, and C.S. KOEHLER. 1979. **Soaps for home landscape insect control.** California Agriculture 33(6): 13-15.

The utility of soap sprays for insect control was demonstrated as early as 1842. Today there is renewed interest in soap sprays, yet directions for use are often vague and confusing, and the literature is unclear as to how effective soaps are. In a total of eight experiments conducted during 1978, the soap and detergent sprays produced high mortality of all arthropods tested except spittlebugs. The mites, aphids, psyllids, and thrips used in these experiments are all soft-bodied, sucking arthropods, the kind known to be particularly susceptible to soap sprays. The effects of soap and detergent sprays on beneficial insects have not been adequately studied. Because these sprays do not have the residual properties of synthetic organic insecticides, and do not provide the same consistently high level of control, repeat applications of thoroughly applied sprays are indicated. In addition, phytotoxicity may reduce their applicability on certain plants.

LARSON, M.M. 1979. **Hormonal control of tree seedling root regeneration.** Ohio Report 64(2): 30-31.

When a tree is planted in the soil, two critical events must occur if the tree is to survive and grow. One event is breaking of buds that signals the start of shoot growth. The other event is root regeneration, the formation of new roots on planted trees to replace roots lost or damaged during lifting, storage, and planting operations. The new roots may appear before, during, or after bud break. Delay in root regeneration until after leaf expansion can result in a severe deficiency of water followed by stem dieback or death of the tree. Researchers have known for some time that the physiological processes of root regeneration are mediated by certain plant hormones, and that these hormones are present at sites where new roots develop. Treatment of nursery stock with hormones to increase early establishment appears possible. The OARDC results suggest that roots treated with solutions containing both auxins and cytokinins may develop numerous new roots that are also vigorous. Field tests of various hormone mixtures are currently underway.