

MANAGING OUR GREEN WORLD¹

by Hyland R. Johns

Did you ever fly coast-to-coast on a clear day? Our "green world" is also brown, blue, white, and other colors, depending on the season and your point of view. Yet, the United States has a greater variety of plants (grasses, herbs, shrubs, and trees) than any other country in the world. Within our ecosystem, there is a constant biological tug-of-war; nevertheless, green plants are essential to all life. We are totally dependent on them.

Actually our green world is a dynamic ever-changing scene where a daily struggle for survival rages: for room in the sun, for moistures, for soil nutrients, and for air. For millions of years, there has been a recurring cycle of growth, decline, and regrowth.

We face many critical choices in working with nature. What we do, or what we fail to do, determines how successful we are in making these choices and managing our green world. Recent EPA statistics show encouraging improvements in both air and water pollution, and our developing technology can further this trend. But economic factors must continue to be part of the cost:benefit formula.

Abundant energy, modern medicine, and other characteristics of our private enterprise system, together with mechanization, pesticides, genetics and improved green world technology, have provided us with a longer life span, better standard of living, and more free time than any other country in the world, in all history.

To continue enjoying the benefits of our abundant green world, without detrimental side effects, we must utilize the results of available research. To control pests that pollute our environment (the worm in your apple, the rot in your tomato, and the blight that ruins your tree), we need to continue managing our environment with the technology available to us today. While doing so, we can also look for improved methods for tomorrow.

Yet, banning of sprays for agriculture, forest,

and economic pests, prohibition of clear-cutting and prescribed burning in forest management, and other efforts of hard-core environmentalists, hamper opportunities to assure continuation of our standard of living. These same over-restrictive campaigns are frequently directed toward modern utility, municipal, and commercial vegetation management methods.

A national survey has documented how appreciated and desired this green world is by everyone. Green survival and "green all around us" is given a 95% importance rating — more than nearby schools, churches, shopping centers, or even good neighbors!

Within our green world, trees are the oldest, largest, and most important life forms. They provide shade, beauty, screening, historic, and sentimental attachments with the past, recreational opportunities, living air and water filters for our effluent discharges, as well as adding financially to real estate values by as much as 20%.

In selecting trees, shrubs, and other green plants, consider foliage, flower, fruit, bark, branching habit, pest resistance, hardiness, growth rate and size at maturity, and other characteristics suitable to your situation or requirements.

Nature with its hurricanes, freezes, droughts, floods, fires, epidemics, and other disasters, causes more damage to the environment than does man. However, man's "progress" may cause problems when he bulldozes, burns and clears without careful planning, and intelligent implementation of the plan.

With 50 states, 3,000 counties, and more than 50,000 municipalities, government agencies themselves sometimes do the wrong thing at the wrong time, through ignorance or apathy. Nevertheless, government regulations and guidelines overwhelm us with an avalanche of paper. This results in our forced submission of a responding paper avalanche. Dollar signs are even attached

¹ Synopsis of twin-screen slide talk presented at Southern Chapter, ISA, March 7, 1977.

to so-called "lost opportunity" and "mitigative costs" in the cost:benefit evaluation. But when will this end (or even slow down)?

Answers to offsetting these increasing costs of vegetation management, are found in working more closely with nature. Instead of wasteful pruning practices, misdirected removal policies, and spray over-kill, opportunities exist to relate natural methods to vegetation management. These concepts are often overlooked by the traditional engineering, forestry, or landscape architecture approach.

Natural pruning, selective removal, chemical growth inhibition, and manipulation of plant communities, reinforced where applicable by realistic local ordinances, can save substantially in budgeting and performing this work. Vegetation managers can manage their green world in harmony with the environment, and in harmony with ecologists, property owners, and government

agencies at each level.

We can benefit from application of nature's inherent self-healing and self-maintaining ways. Unnecessary costly expenditures can thereby be reduced. Written policy statements and manuals must be supplemented by indoctrination, training, and continual supervision in the field by competent technicians. Theoretical concepts must be applied differently for each existing situation.

So, to continue enjoying the benefits of our abundant green world, we must utilize all the applicable results of available research. Hopefully, we can then continue managing our environment — for ourselves, our children, and generations yet to come.

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CANKER DISEASES OF TREES AND SHRUBS

by Francis W. Holmes

A canker is a dead spot on the surface of the branch or trunk, caused by an infection. One or several kinds of cankers occur on most, perhaps all, kinds of woody plants. The dead spot may enlarge until it encircles the branch or trunk, girdling it and killing all higher or outer portions for lack of water. It also may allow wood-decaying fungi to enter the interior of the branch or trunk. Sometimes the canker organism itself can cause rot; occasionally it prevents or retards rot.

CONTROL: Remove the diseased or infected portions of the plant during dry weather. If a small branch is infected, it is usually easiest to prune this out, cutting flush with the next larger branch or trunk to which it is attached. Burn or remove the infected parts, single spores produced on them can cause more infections. If a large branch or trunk is infected, cut back the bark to healthy wood all the way around the canker, then shape the wound to an oval, pointed in the directions of sap and water flow. Then scrape the surface of

the wound, to remove diseased tissues. Pruning tools should be sterilized frequently between cuts, for example with a 10% solution of household bleach or with 70% alcohol or with formaldehyde. Wash dry and oil these tools at the end of the day's work.

Treat the wound then like any other (healthy) wound: Swab its surface at once with an antiseptic (70% alcohol or shellac will do). As soon as the antiseptic dries, apply a tree-wound paint over the exposed wood. Avoid ordinary paints, which may be toxic to living tissues. This wound paint should be maintained as a constantly intact layer by repainting as often as needed, usually 3 or 4 times a year, until the wound has healed.

Many of the canker disease pathogens tend to attack weak trees. Make the tree vigorous, by such measures as appropriate feeding, watering, mulching, and control of other pests that afflict that tree. **EXCEPTION:** trees in the rose family (like apple, pear, mountain ash) may be attacked