Village View

by Andrea Leonard

Although it's been several years since the gypsy moth "bloomed" on the Cape, now that DDT is outlawed to protect humans and can't be widely sprayed over woodlands, we can expect this obnoxious insect will soon stage another population explosion.

Each year the larvae or caterpillar stage of the gypsy moth damages or kills thousands of acres of trees in the Northeast. Those with sharp eyes and good memories see an active gypsy moth population on the Cape right now.

In case you've forgotten its history, the pest is a foreigner to our shores; it was imported to Medford, Mass., in 1869 for a silk-raising project. A few moths escaped and the results have been disastrous because the creatures have no natural enemies in our environment. Not even the starlings can stand them.

Good news! The U.S. Department of Agriculture and the Environmental Protection Agency announced recently a natural virus has been identified and approved by the EPA to combat the devastation inflicted by gypsy moths that last year infested about 1.6 million acres of forest and residential areas in eight northeastern states.

The moth virus, nucleopolyhedrosis, is trade-named "Gypchek" and it occurs naturally in a small portion of the insects; after 15 years of research, scientists have now learned to mass produce and release it in forested areas to create a deadly disease outbreak among the moths.

The research project, conducted by USDA's Forest Service together with university and industry scientists, is supported by USDA funds.

Although Gypchek is not expected to come into widespread use for a few more years, its availability will speed the advancement of integrated pest management, and the various will serve as an alternative to chemical insecticides and supplement other control tactics.

Additional field trials to test operational effectiveness of Gypchek will be made this year on some 2,200 acres in central Pennsylvania and 150 acres near Trenton, New Jersey, after diseased gypsy moths are raised in BioServe, Inc., laboratories, Frenchtown, N.J.

Use of Gypchek will be restricted to professional applicators under supervision of the Forest Service. The product is not expected to be commercially available to homeowners because, to be effective, it must be applied with special equipment according to precise timing and dosages.

According to EPA Deputy Administrator, Barbara Blum, insect viruses are different from those affecting humans. "Tests indicate," she says, "the gypsy moth virus attacks only this pest and will have no ill effects upon people, wildlife, other insects, soil or water."

Now control of the gypsy moth may be a goal within reach, what other good news is there for people concerned about ecologically-sound management of our environment?

Plastic wraps that dissolve harmlessly into the soil instead of cluttering the landscape may be in store for us, thanks to Agariculture Department scientists. Besides eliminating some of America's trash, the new plastic wraps will conserve oil by substituting a product the country has in great abundance. Starch.

USDA's North Central Research Center in Peoria, Illinois, has developed a biodegradable plastic; also working on similar projects are at least two private firms, Union Carbide and Owens Illinois.

Combining plastic with starch in certain proportions and under certain conditions, results in a material which disintegrates when exposed to the elements. The starch dissolves, leaving small amounts of harmless copolymers; these wash away, and in time, decay.

Curent research concentrates on varying the amounts of starch in the formula to establish definite decay periods. Garden mulch may be the first application for the new material, but it's also applicable to heat-sealable packaging. Plastic film made with 50 percent starch will last up to 70 days, according to researchers; as the quantity of starch increases, lifetime of the material shortens.

It's anticipated the self-destruct plastic will cost slightly more (of course) than current plastic wraps; however, as oil prices rise, ordinary plastics will be more expensive. The newer plastics may offer more price stability in the long run. Whatever the price, it will be well worth it.

Perhaps the best bit of news for environmentalists is in a 24-page booklet entitled **Bottles & Cans, The Story of the Vermont Deposit Law**, published by the Vermont Natural Resources Council, 26 State St., Montpelier, VT 05602. **For your copy**, send them a stamped, self-addressed envelope.

The booklet's purpose is to counter what Seward Weber, Executive Director, VNRC, calls, "the often misleading, erroneous, and too often false information used to discredit the Vermont deposit law," and it points up the enormous success of Vermont's deposit law both in reducing litter and saving energy by refilling bottles.

In 1972, Oregon initiated the first container deposit law; since then, other states, witnessing the positive results, have followed suit. Vermont adopted its law in 1973; now Michigan, Maine and Connecticut have deposit laws and, although recently such a law failed to pass the Massachusetts Senate on a tie vote, state after state throughout the nation is considering bottle deposit legislation.

Should the foregoing glad tidings leave you cool, perhaps you'll warm to **Solar Energy: Progress and Promise**, a publication available from the Council on Environmental Quality, 722 Jackson Place, N.W., Washington, D.C. 20008.

The CEQ, an advisory agency in the President's Executive Office, estimates solar energy could meet a quarter of America's energy needs by the year 2000 and over half before 2025. "Although the actual contribution of solar energy will depend on an enormous number of decisions by public and private sectors, we believe, under conditions of accelerated development and with serious efforts to conserve energy, solar technology could meet a quarter of our energy needs by the year 2000.

"For the period 2020 and beyond, it's now possible to speak hopefully, and unblushingly, of the United States becoming a solar society," the publication states.

According to CEQ, the economics of solar energy improves rapidly; cost of solar cells is about 50 times lower now than a few years ago. In 1973 about 30 houses in the country supplemented conventional heat with solar energy; now there are thousands. Today almost 200 firms sell solar systems, and the production of collectors is increasing dramatically.

Effects on the economy and employment are expected to be highly beneficial, generating two to five times as many jobs as equal expenditures would for central station electric power plants. A California study estimates widespread use of solar systems could create over 375,000 jobs each year in the next decade, cutting that state's unemployment rate nearly in half.

The transition from traditional cources to solar will require a variety of technologies: better design of new buildings to make better passive use of winter sunshine to warm and summer shade to col; photovoltaic cells and high-temperature collectors; intermediate-temperature technologies to produce electricity and heat on a factory or community scale; solar engines to power irrigation pumps in the West; gaseous and liquid fuels from plant materials (biomass); and electricity from small dams (in New England, 112 hydro-power sites have been abandoned since 1941).

The report says, "A strong case can be made that had there been a national commitment in the 1950's to develop solar technology - comparable to that made to develop nuclear power -- the result would have been widespread economic feasibility of solar energy today.

"Because of the long lead times necessary to perfect energy producing and consuming technologies, major decisions must be made today, if solar energy is to be available as our primary replacement source for tomorrow."

Believe it? Believe it.

A grassroots show of concern for developing solar enrgy systems already makes itself felt, nationwide; if you're among those hoping to see the groundswell become the wave of the future, send for your copy of **Solar Energy: Progress and Promise**; let those hard-working people at CEQ know you're more than mildly curious. To survive, they need to know we really do care.

Good news? Yes, indeed, on all fronts there's good news. And when there is, we all have a right to hear about it, an obligation to learn all we can about it, and a responsibility to support the men and women laboring to make it possible.