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SEPTEMBER 1990 ©

I

I'm finding that it can be a fun mini-hobby discovering new ways to live more Eco-Logically, instead of it being the ascetic, grim exercise in masochism often associated with reducing wasteful extravagance. For instance, a dripping pipe beneath one of my kitchen sinks led me to put a 5 gallon plastic bucket rescued from a dumpster beneath it...the original intent being to catch the drip till making the repair. But one day I simply decided to REMOVE, rather than repair the pipes beneath BOTH sinks, and to put a second 5 gallon bucket beneath the other sink, the desire being to retrieve rather than waste all that water. Since the water in a sink trap serves to keep the explosive "sewer gas" (methane) from oozing into the home, I stuffed used plastic grocery sacks into the outflow pipe, then covered the opening with another plastic grocery sack and rubberbanded it tightly.

The first week of this new arrangement saw me overflowing both buckets several times, serving to get me in the habit of checking them before running the water. After a lifetime of mindlessly running tap water, I soon was shocked to learn just how many gallons of precious water a conservation-minded single man can run down his kitchen drains daily. Checking the buckets and emptying them into different dry regions of my yard has ended my "mindless" use of water in the kitchen.

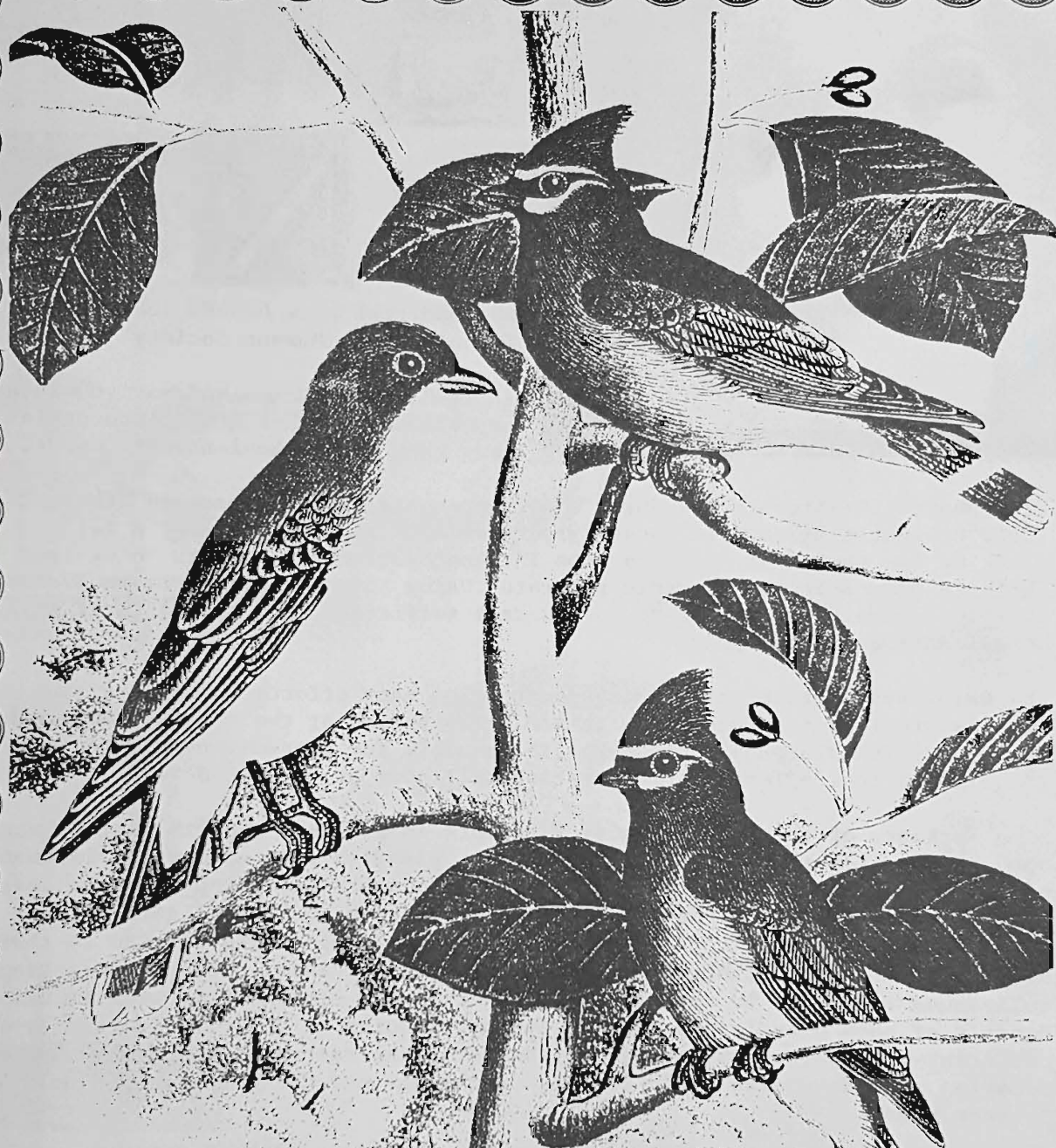
A few weeks later I disconnected the bathroom sink, plugged the outflow pipe and installed a plastic 5 gallon water jug rescued from a dumpster. Since I have never let the water run while shaving or brushing my teeth, it takes 2-3 days to fill that jug.

Granted, hearing water splash into buckets and jugs beneath my sinks lends a "Third World" feeling to my modest red brick home. And lugging 5 gallon containers of waste water to dry spots in the miniature farm my yard has become is more work than letting that water slip down the pipes. But that's the whole point. In many parts of the world water is precious and hard to get; people have to walk miles to bring home the water for their barest survival needs. But, for many reasons, our society is based on keeping waste the tidy, cheap and CONVENIENT thing to do. But our supply is running low. The price of water will rise sharply in the next decade. Perhaps buckets beneath sinks will become more common. But rather than wait for "society" to devise a whole new water delivery and recovery infrastructure, using my waste water to grow food and flowers is a "guerilla action" I can take today, one that will save me money AND allow me to directly address a growing global problem.

On another point; I wish to thank Jane Mettee, Solange Gignac, Al Begin, Sally Newkirk and Joe Weintraub for pointing out ways to make **THE GARDEN DOCTOR** more "user friendly"... no upside down quotes, less weensy teensy lettering and proper spacing between the sentences. It seems that in my zeal to "pack" as much as enjoyable information as possible into each issue I lost sight of the importance of readability. Perhaps that is one reason why readership has never topped 250 in any given quarter despite the several great reviews this magazine has gotten in several national and regional magazines and newspapers. Another reason might be price; since **THE GARDEN DOCTOR** is not subsidized by advertisers' dollars, it costs more than ad-filled, machine-colored and assembled mainstream magazines. So I'm hopeful that pleased readers will welcome the \$18 offer that will run through the rest of 1990. At that price the magazine will again lose money, but if it inspires you folks to both renew your subscription and to give at least one gift subscription the resulting gain in readership should decrease per-unit costs enough to allow **THE GARDEN DOCTOR** a perennial future. I truly love creating each new issue, and do my best to insure that you love getting them. Profitability for the magazine will likely occur once readership moves past the critical 400 reader threshold....each current reader RENEWING and GIVING one gift subscription would make that happen. I'll keep my fingers crossed. Feel free to let me know how **THE GARDEN DOCTOR** pleases OR disappoints you, okay? I can take it.

cover plant:
Koelipinia linearis

John



The Eastern Kingbird
(*Tyrannus tyrannus*)
Grey with a white chest,
this bird is $6 \frac{3}{4}$ inches
long, feeds on flying bugs,
and is common in eastern
North America. Its tail is
tipped by a broad white
band.

The Cedar Waxwing
(*Bombycilla cedrorum*)
Yellowish-tan with one red spot
on the trailing edge of each
wing, this bird measures $5 \frac{3}{4}$
inches in length. Ranging over
most of North America, including
Mexico, this crested bird feeds
on flying insects, berries and
other fruits.



ood



ews

60 countries have banned the use of leghold traps. **Humane Society**

In 1972, 26 countries had environmental protection agencies. Now 161 countries have them. **World Environment Center.**

Near Daggett, California the **Solar One** experimental project uses an array of 1,818 heliostat mirrors to focus desert sunlight at a boiler atop a tall tower at the center of the array. The intense heat converts water to steam, which in turn spins an electric generator. Using this technology it would take only 20 square miles of desert to generate sufficient electricity for 1 million homes! **National Geographic**

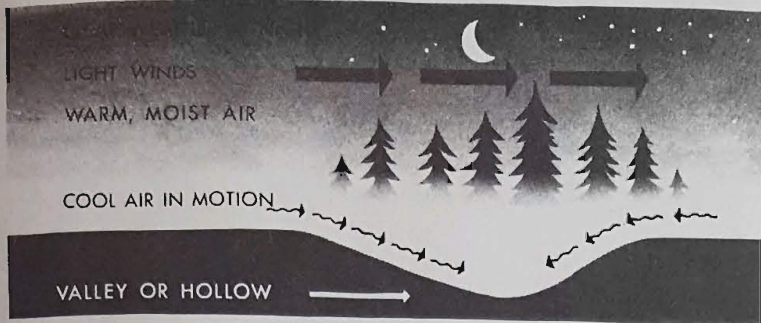
The **Rainforest Action Network** is spearheading many efforts to protect the world's tropical rainforests, which are being burned at the rate of 100 acres per minute. Their organization makes it possible for everyday people to join in this critical effort. For information call them at (415)-398-4404.

Simo Saranen of the University of Minnesota in St. Paul reports that it may soon be possible to make strong, lightweight plastics from wood waste instead of petroleum. The U.S. paper pulp industry produces (and BURNS as waste) nearly 20 million tons of lignin annually. A complicated biopolymer, lignin is what makes wood rigid and strong. It is an extremely complex molecule, and so there are difficulties in any effort to recombine its constituents. But Simo says his colleagues will soon be able to cast thin films of lignin-based plastic. One benefit of such plastics would be a further weaning of our civilization from pollutant-rich petroleum. Another is the fact that naturally-occurring wood-decaying microorganisms would readily digest discarded lignin-based plastics. **Science News.**

The Dreyfus Third Century Fund, which relies on a portfolio of environmental and socially desirable firms and investment goals, has returned a total of nearly 670 percent since its creation on March 29, 1972.

The car manufacturer **Isuzu** has teamed up with **Fuji Electrochemical** to develop a radical new battery technology which could GREATLY accelerate the retail-level introduction of electric cars, even solar-powered cars. The battery weighs only 1-TWENTIETH as much as a conventional lead-acid battery, can produce 40 TIMES MORE PEAK LOAD POWER, and requires just 30 SECONDS to recharge (vs. the usual 12-24 hours). Best of all, instead of using corrosive sulfuric acid and the toxic heavy metal lead to generate its power, the new battery uses, almost unbelievably, ACTIVATED CHARCOAL! The heavy weight, low power and long recharge time of lead-acid batteries has held back mass production of electric cars. **AutoWeek.**

"Don't take life too seriously...you'll never get out of it alive". Bugs Bunny



Fog Forms when moist air near the surface of the earth is chilled so that its water vapor condenses. If the temperature of the air is above the dew point, the vapor cannot condense and no fog is formed. Fog is most likely to appear on clear nights with gentle winds which chill a layer of warm air above the earth by mixing it with cold air at the surface. The fog which then forms usually drains down into the lowest part of the ground surface.

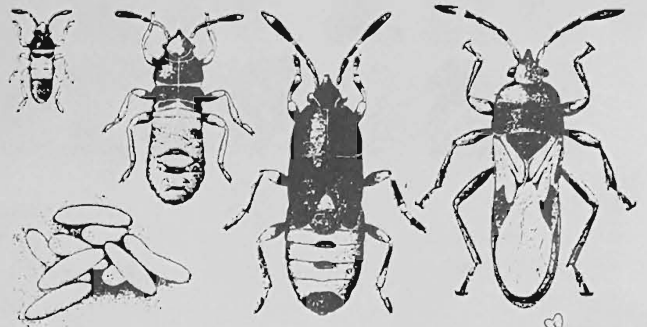
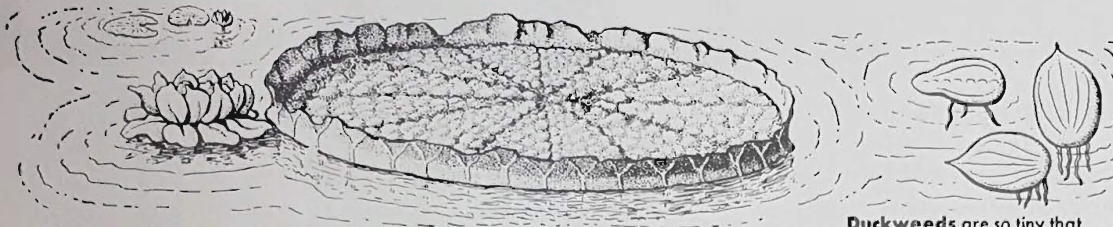
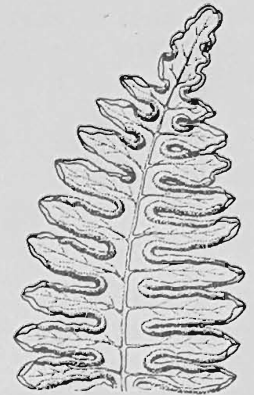


FIG. 130. The chinch bug, *Blissus leucopterus*; eggs, nymphs, short-winged adult and long-winged adults. (U.S.D.A.)



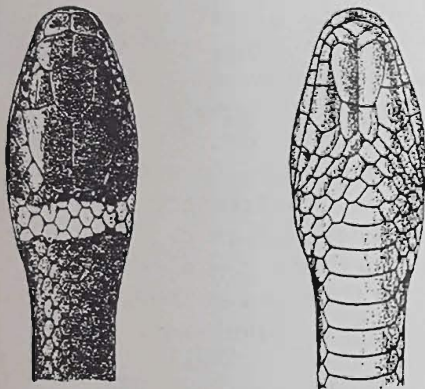
Victoria Regia, the giant water lily, grows leaves as much as four feet across. Some are strong enough to support a man. The huge water plant blossoms at night.

Duckweeds are so tiny that 7,000,000 of them could be placed side by side on a Victoria regia leaf.

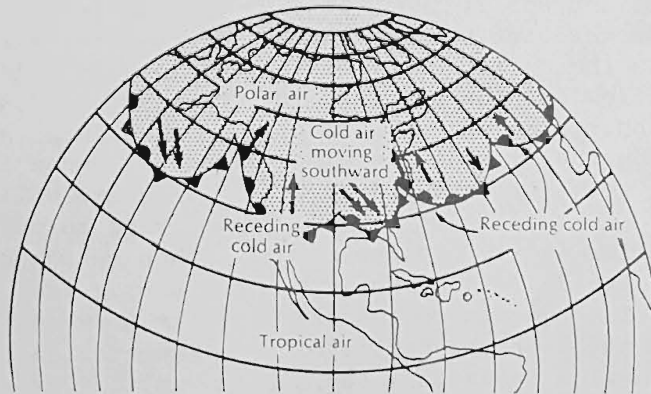


Bracken fern

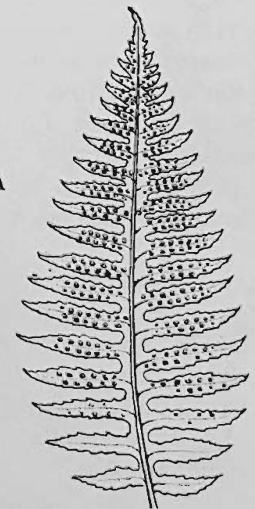
Cold fronts occur when dense, cold air "spills" towards the equator from either pole of our planet.



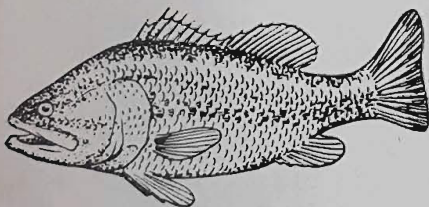
Northern ring-necked snake (*Diadophis punctatus edwardsii*).



The FRANKLINIA TREE



Licorice fern



Large-mouth bass



ASIA



AFRICA



NORTH AMERICA



SOUTH AMERICA



ANTARCTICA



EUROPE



AUSTRALIA

SHARING SECRETS



To help keep your home cool in the summer, plant deciduous trees along the south side of your home (if you live in the Northern Hemisphere). Adult maples, lindens, ash and other deciduous trees can cool the area beneath them up to 15 degrees, both by their shade and evaporative cooling. Since they drop their leaves in the fall, they will admit the sorely needed warming rays of the winter sun through their bare branches.

On most electric ranges the medium-high setting uses only about $\frac{1}{2}$ as much electricity as does the high setting. The simmer setting uses just 1 tenth the energy of the high.

To easily rinse freshly-harvested root crops AND conserve water, put them in an old plastic laundry basket and set it in an area of the yard that needs watering. Use your hose on full force to rinse the carrots, etc. clean. The muddy water will flow out the openings in the basket and water that area of the garden. This method also avoids the risk of plugging up household plumbing with soil and gravel.

All members of the Mallow family produce edible flowers, some quite delicious. While hibiscus flowers have long been used to make tea, try them raw in a salad or chopped into cream cheese for a sandwich spread. All the Mallow flowers look much like those of the hibiscus: Okra, Lavatera, Garden Mallow, Cotton, Rose-of-Sharon, hollyhock, Mahoe, Roselle, Marsh Mallow, Confederate Rose and Abelmosk all produce flowers that are bell-shaped and with 5 petals and 5 sepals. The petals wilt quickly when harvested, so pick them just before adding them to your salad.

For some truly Hot Peppers From Hell, buy some dried red hot peppers at a Thai grocery store. Read the cellophane pack to be sure they are imported from Thailand. Break up the dry pods, sprinkle the seeds in loose rich soil and cover them $\frac{1}{4}$ " deep. Keep moist and warm; germination is in 7-10 days. Grow in full sun. The slender red pods will cauterize steel! (All peppers are frost-tender; set in the garden only after frost danger has passed.)

Each winter songbirds can become truly desperate for calorie-rich food to keep from starving and freezing to death... winter mortality rates can approach 50%! So use these autumn months to stockpile cans of lard from the grocery store and sacks of birdseed or chick scratch from feedstores. When winter sets in, mix 3 parts of bird seed with 1 part melted lard in a large bowl thoroughly. When it has cooled, spoon the greasy mixture into mesh onion sacks or suet cages or even just spoon it into the birdbath or on a stump. While you and I may be trying to avoid animal fats and chloresterol, cold hungry songbirds regard it as a life-saving fuel to help their rapid metabolisms warm their little bodies. Dedicated vegetarians may wish to substitute coconut fat, often available in 5 gallon tubs at restaurant supply houses or Asian groceries. Oil rich seeds like sunflower, canola or flax are good for winter feeding stations.

Garlic is easy to grow IF it is planted in the fall. Most people find that a bulb purchased at the grocer works fine. Just peel off the papery outer coating and break the bulb up into individual cloves. Choose a full sun garden site, broadcast some manure or compost and turn the soil till loose. Plant the cloves about 3" deep and 4" apart, ideally in November through December. The following summer the foliage will yellow and collapse....Harvest!!!

Buzz kitchen scraps in your blender with water and use as a liquid fertilizer.

Sons and fathers are both the fragile shadows of the same trembling hurt.
Margaret Head



bergamot

by Moe Narda



Native to North America, Bergamot is a colorful and flavorful perennial member of the Mint (Labiatae) Family. Known also as Oswego Tea, Bee Balm and horse mint, Bergamot prefers rich, moist soil and full sun, though it tolerates dappled sun quite well. Like most mints, it spreads rapidly by underground runners, but can easily be contained simply by lifting these plantlets as they form. Every 3 years lift the parent plant, remove and discard the woody core, and replant a healthy new clump. It's a very good idea to mulch the soil around your bergamot (*Monarda didyma*) with 4"-6" of grass clippings or hay to help keep the soil moist and fertile.

The wild species are rather slender and small-flowered, with the florets being either red or lavender. The hybrids are much fuller and stockier; this, combined with their wider color range (white, salmon, deep red and rose) make this hardy perennial a fine addition to flower, herb and vegetable gardens. "Cambridge Scarlet" is a large-flowered variety fine for arrangements that exude a rich minty aroma while providing an unusual look. Bergamot very much needs an extended winter dormancy to do well, and so struggles in mild regions like San Diego, Miami, St. Thomas and much of coastal Texas.

Either fresh or dried, Bergamot leaves make an excellent tea served hot or on ice. A bit of honey or brown sugar will bring out the minty taste. Or try pulling the individual florets out of the flower head and sprinkle them on desserts and salads. If you end up with a very big patch some year, harvest armloads of bergamot just as the flowers form, dry them on screens in the shade, and stuff pillows with the minty crisp leaves. Sweet Dreams!

As a cure for worrying, work is better than whiskey.

Thomas A. Edison



Organic gardening seeks to create healthy soil above all else by feeding it with various plant and animal-derived materials. Microorganisms digest these, thus releasing the simpler compounds plants absorb through their roots. Materials rich in nitrogen relative to phosphorus and potassium foster the growth of leafy plant tissue AND a wide range of beneficial bacteria and fungi. An "F" after a material indicates particular usefulness in feeding your soil (and thus your plants). An "M" denotes a material recommended for mulching your soil.

MATERIAL

nitrogen phosphorus potassium

Alfalfa Hay (M)	2.45%	0.50%	2.10%
Apple Leaves (M)	1.00%	0.15%	0.10%
Bat Guano (F)	1.0-12%	2.5-16%	0.0%
Brewer's Grains, wet (F)	0.90%	0.50%	0.05%
Silk Waste (F)	8.37%	1.14%	0.12%
Coffee Grounds (F)	2.08%	0.32%	0.28%
Fresh Duck Manure (F)	1.12%	1.44%	0.49%
Eggshells (F)	1.19%	0.38%	0.14%
Feathers (F)	15.30%	0.0%	0.0%
Bean pod shells (M)	1.70%	0.30%	0.35%
Fish Waste (F)	7.76%	13.00%	0.38%
Greensand (F)	0.0%	1-2%	5.00%
Hair (F)	12-16%	0.0%	0.0%
Hoof Meal, Horn Dust (F)	10-15%	1.5-2%	0.0%
Kentucky Bluegrass, dry (M)	1.20%	0.40%	1.55%
Bluegrass, green (M)	0.66%	0.19%	0.71%
Leather Dust (F)	10-12%	0.0%	0.0%
Lobster Waste (F)	4.50%	3.50%	0.0%
Oak Leaves (M)	0.80%	0.35%	0.15%
Olive Pomace (F)	1.15%	0.78%	1.26%
Peanut Shells (M)	0.80%	0.15%	0.50%
Pigeon Poop, fresh (F)	4.19%	2.24%	1.41%
Pine Needles (M)	0.46%	0.12%	0.03%
Red Clover Hay (M)	2.10%	0.50%	2.00%
Salt-Marsh Hay (M)	1.10%	0.25%	0.75%
Atlantic Seaweed (M,F)	1.68%	0.75%	4.93%
Shrimp Waste (F)	2.87%	9.95%	0.0%
Spanish Moss (M)	0.60%	0.10%	0.55%
Tobacco Leaves (M)	4.00%	0.50%	6.00%
Wheat Straw (M)	0.50%	0.15%	0.60%
White Clover, fresh (M)	0.50%	0.20%	0.30%
Wood ashes, unleached (F)	0.0%	1-2%	4-10%
Wool Waste (F)	5-6%	2-4%	1-3%

Many of these materials are discarded as waste materials and are thus free for the taking, or, often quite inexpensive. Using these materials to enliven your soil will not only help create a healthy garden, you will also be intervening in the needless waste of valuable resources. Don't be shy about approaching breweries, feed lots, farmers, canneries, fish markets, restaurants, fishermen, and other net producers of organic wastes...very often they're delighted to have someone haul away their "garbage". Closely related to the honorable skill of "dumpster diving", intercepting free fertilizer is another guerilla action organic gardeners can employ to benefit their budgets while keeping these materials from generating the Greenhouse Effect Gas methane after being buried in landfills.



Margaret Head's View of the News

When I try to look objectively at the plight of Planet Earth's OTHER inhabitants, the birds, mammals, reptiles, fish, amphibians, insects, corals and others who preceded humanity but are now being wiped out DAILY by it, I am filled with a sadness and anger beyond which I do not know how to move. It seems that we humans, even when moved by a desire to help our animal companions, tend to operate from an assumption that we are the superior life form. Perhaps this is because we make and use the deadliest and/or most complex tools. Or because we are the only species "advanced" enough to render extinct yet another species every 15 minutes. Or because our numbers are increasing by 92 million ANNUALLY while so many other creatures are declining in number. So if pogrom and vermin-like fecundity are true measures of superiority, perhaps we are the "best" species. But since we humans are quickly and singlehandedly disrupting billions of years' worth of global ecological evolution, we don't seem all that superior to me.

Looking down our noses at "lower" life forms can infuse a patronizing arrogance even into our efforts to "help" our fellow travelers on Planet Earth as it silently whisks through space. For instance, programs of annual "culling" (read "killing") of wild deer, elk, buffalo and other grazing mammals are promoted as efforts to "help" them by combating "overgrazing" to spare them winter starvation. (If their natural predators weren't also "culled" in vast numbers to aid the ranching industry, their numbers would be naturally moderated). But gee, I can't help but notice that one end result is a bonanza for sport hunters eager not to feed their families but to display stuffed heads on their den walls. The very phrase "wildlife MANAGEMENT" indicates a belief that humans understand the complex workings of bio-ecology. The record suggests otherwise...we have for centuries taken pristine, BALANCED ecosystems and left them lopsided, pockmarked by extinctions and festering with monocultural swarms of introduced foreign species. Some have labelled human arrogance "Speciesism". Works for me. This "speciesist" inclination of ours reminds me of the patronizing tyranny called "apartheid" we often use against each other..."You people live over there, out of our sight, do what we say and when, and we'll 'take care' of and 'protect' you." The slavemaster thus sees himself as benevolent and sleeps well, guiltless, unmotivated to change and most of all, IN CHARGE.

Since even many of our good intentions can and do harm so many living things, what are we to do? We MUST recognize that this perceived need to "manage" wild creatures arises from the simple fact that there are too damn many of us. Our swelling population has rendered each person an "AIDS virus" nibbling away at the earth's immune system. Why? Unlike most other animals, human females are in "heat" all year long, as are the males. And sadly, many human cultures have trained us to believe that we are diminished, sadly incomplete if we do not pair off and breed, as though the ability and willingness to exchange semen was the truest measure of our worth. So our cities swell like malignancies into the forests, meadows and prairies; we feel "crowded" by wildlife. "How DARE those prairie dogs live where we want to build a school?!" I know I've discussed population control before, as has Paul Ehrlich, Margaret Sanger and many others. Trouble is, the babies, wanted or not, keep coming, due in part to patriarchal religions that cruelly forbid both birth control AND abortion. But the so-called "right-to-life" is not exclusive to human fetuses. We are now rendering extinct, FOREVER, 1 entire species of creatures every 15 minutes!...what about THEIR right to life?!

"The art of being wise is the art of knowing what to overlook."

William James 1842-1910

HARRY KRISHNA'S

karmic relief

RESOURCE REPORT

Friends of the Earth
530 Seventh Street SE
Washington, DC 20003

The Nature Conservancy
Suite 800
1800 N. Kent St.
Arlington, VA 22209

The Sierra Club
730 Polk Street
San Francisco, CA 94109

New York Green Party
29 Middagh Street
Brooklyn, NY 11201

Tampa Bay Greens
AFSC, Tampa Bay Area
130 19th Ave. SE
St. Petersburg, FL 33705

Green Letter (send \$20)
P.O. Box 14141
San Francisco, CA 94114

Rainforest Action Network
466 Green Street, Suite 300
San Francisco, CA 94133

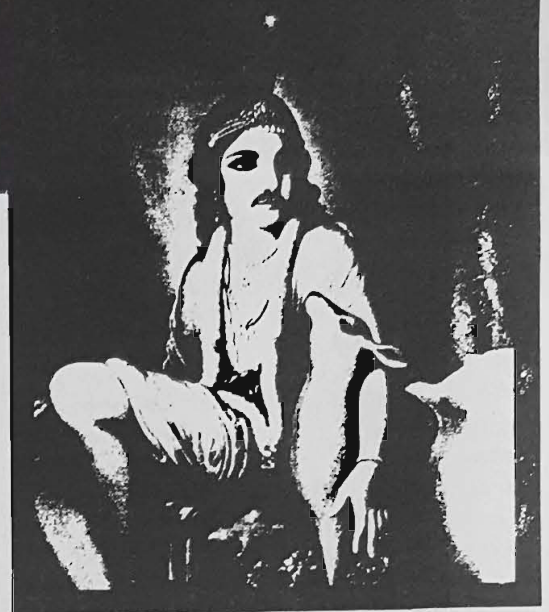
World Wildlife Fund
1250 24th Street NW
Washington DC 20037

**Green Committees of
Correspondence**
Interregional Clearinghouse
P.O. Box 30208
Kansas City MO 64112

The Canadian Green Hub Office
831 Commercial Drive
Vancouver, BC U5L 3W6

Hawaii Green Movement
P.O. Box 61508
Honolulu, HI 96839

Cascadia Greens Alliance (OR, WA)
3619 Linden Ave. North
Seattle, WA 98103



American Vegan Society
Box H (Old Harding Hwy.)
Malaga, NJ 08328

**North American Vegetarian
Society**
P.O. Box 72
Dolgeville, NY 11329

Friends of the Trees
P.O. Box 1466
Chelan WA 98816

PESTICIDES DO THE
DARNDEST THINGS

by Bart Sinkwetter

Diazinon, originally developed by the Nazis as a nerve gas for use against "undesirable" humans, is now commonly used on lawns, flowers and food crops to kill "undesirable" insects. Unfortunately, it also kills beneficial insects, and has been confirmed or implicated in approximately 60 separate bird-kills of 23 different species, including waterfowl, shore and song birds, and others, including 700 Atlantic Brant geese that alighted on a Long Island golf course.

PESTICIDE ALERT
copyright 1987



9

Using reeds and grasses, the Towhee Bunting fashions a nest that expresses an elegant simplicity.

HONEY PLANTS



by
BEA BOMBLE

We can increase the production of vegetables and fruits in our farms, gardens and orchards simply by growing the nectar-rich flowering plants that attract that delightful pollinating insect, the bee. Not only the domestic honeybee but also the many wild species of bee greatly increase fruit set on cultivated plants as they pass from flower to flower in search of nectar and the pollinating agent itself, pollen, which transfers male genes to the unripe female seeds. Unfortunately, huge numbers of bees have been killed by the use of pesticides, so let's make our properties hospitable to the survivors by growing them a seasonal succession of food flowers; after all, after pollinating our food crops, the busy sweet little dears bless us with golden honey!

SNOWY CLIMATE HONEY PLANTS

White Clover	Aster
Goldenrod	Sweet Clover
Raspberry	Alfalfa
Dandelion	Sunflower
Red Clover	Monarda (Bee Balm)
Buckwheat	Alsike Clover
Loosestrife	Apple
Basil	Anise Hyssop
Cleome	Plum, Peach
Borage	Sage

MILD WINTER REGIONS

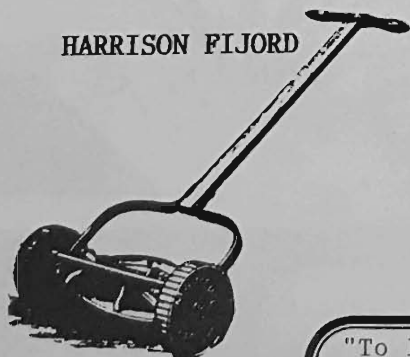
Cotton	Mesquite
Vervain	Basswood
Palmetto	Persimmon
Tupelo	Tamarisk
Citrus	Sunflower
Buckwheat	Blackberry



BLADE RUNNING

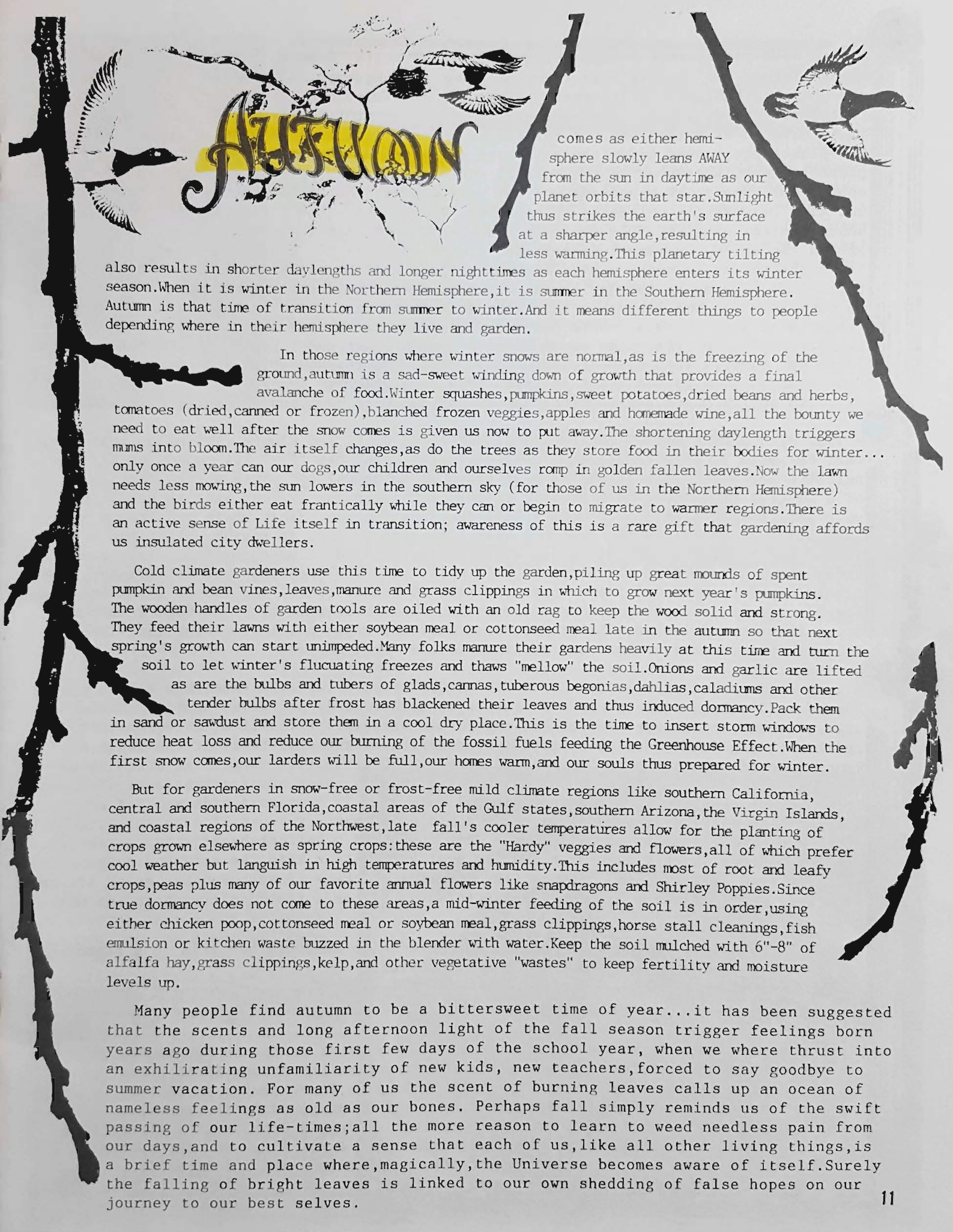


by
HARRISON FIJORD



Most perennial plants store surplus food (manufactured in their leaves) in their roots for future growth and health. If the plant is cut back too short and/or too often, the roots are drained of their reserves and the plant as a whole suffers. Most lawn grasses are perennial plants. And many of us "scalp" our lawns with 2 or 3 severe mowings per month, removing up to 3/4's of the total height of the blade each time. This not only stresses and starves the roots, it favors the growth of many tough weeds no longer shaded and crowded by a thick 3 inch tall canopy of grass leaves. Except for low-growing grasses like Bermuda or centipede, most other grasses prefer a mowing height of 2, preferably 3, inches. And to avoid removing more than 1/3 of the total height of each blade of grass, mow more frequently, say every 5 days. And be sure to mow with the bag OFF the mower, so that the many organisms living in your organically-grown lawn can quickly digest the fallen clippings into natural fertilizer for the soil beneath your lawn. These fallen clippings will also form a thin mulch to help retain soil moisture AND to shade out sprouting weed seeds. Here's the wrap-up: Running your mower blade FREQUENTLY but SPARINGLY is a crucial aspect of growing a healthy, attractive poison-free, weed-reduced lawn, one safe for children, wild birds, earthworms and pinics. **Note*** Try a mowing height of 2 inches on the low-growing grasses.

"To label family planning and legal abortion programs "genocide" is male rhetoric for male ears." Shirley Chisholm 1970



Autumn

comes as either hemisphere slowly leans AWAY from the sun in daytime as our planet orbits that star. Sunlight thus strikes the earth's surface at a sharper angle, resulting in less warming. This planetary tilting

also results in shorter daylengths and longer nighttime as each hemisphere enters its winter season. When it is winter in the Northern Hemisphere, it is summer in the Southern Hemisphere. Autumn is that time of transition from summer to winter. And it means different things to people depending where in their hemisphere they live and garden.

In those regions where winter snows are normal, as is the freezing of the ground, autumn is a sad-sweet winding down of growth that provides a final avalanche of food. Winter squashes, pumpkins, sweet potatoes, dried beans and herbs, tomatoes (dried, canned or frozen), blanched frozen veggies, apples and homemade wine, all the bounty we need to eat well after the snow comes is given us now to put away. The shortening daylength triggers mums into bloom. The air itself changes, as do the trees as they store food in their bodies for winter... only once a year can our dogs, our children and ourselves romp in golden fallen leaves. Now the lawn needs less mowing, the sun lowers in the southern sky (for those of us in the Northern Hemisphere) and the birds either eat frantically while they can or begin to migrate to warmer regions. There is an active sense of Life itself in transition; awareness of this is a rare gift that gardening affords us insulated city dwellers.

Cold climate gardeners use this time to tidy up the garden, piling up great mounds of spent pumpkin and bean vines, leaves, manure and grass clippings in which to grow next year's pumpkins. The wooden handles of garden tools are oiled with an old rag to keep the wood solid and strong. They feed their lawns with either soybean meal or cottonseed meal late in the autumn so that next spring's growth can start unimpeded. Many folks manure their gardens heavily at this time and turn the soil to let winter's fluctuating freezes and thaws "mellow" the soil. Onions and garlic are lifted as are the bulbs and tubers of glads, cannas, tuberous begonias, dahlias, caladiums and other tender bulbs after frost has blackened their leaves and thus induced dormancy. Pack them in sand or sawdust and store them in a cool dry place. This is the time to insert storm windows to reduce heat loss and reduce our burning of the fossil fuels feeding the Greenhouse Effect. When the first snow comes, our larders will be full, our homes warm, and our souls thus prepared for winter.

But for gardeners in snow-free or frost-free mild climate regions like southern California, central and southern Florida, coastal areas of the Gulf states, southern Arizona, the Virgin Islands, and coastal regions of the Northwest, late fall's cooler temperatures allow for the planting of crops grown elsewhere as spring crops: these are the "Hardy" veggies and flowers, all of which prefer cool weather but languish in high temperatures and humidity. This includes most of root and leafy crops, peas plus many of our favorite annual flowers like snapdragons and Shirley Poppies. Since true dormancy does not come to these areas, a mid-winter feeding of the soil is in order, using either chicken poop, cottonseed meal or soybean meal, grass clippings, horse stall cleanings, fish emulsion or kitchen waste buzzed in the blender with water. Keep the soil mulched with 6"-8" of alfalfa hay, grass clippings, kelp, and other vegetative "wastes" to keep fertility and moisture levels up.

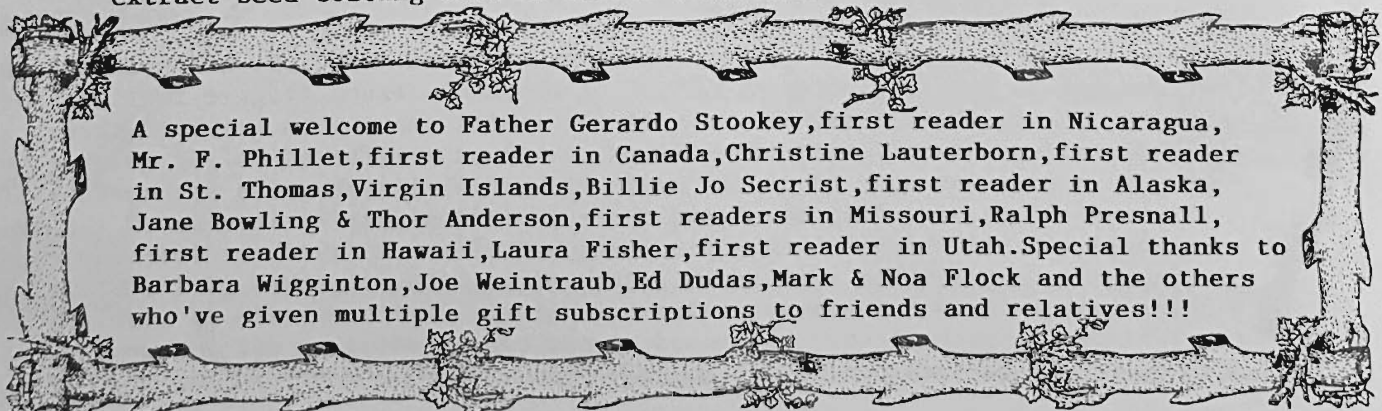
Many people find autumn to be a bittersweet time of year... it has been suggested that the scents and long afternoon light of the fall season trigger feelings born years ago during those first few days of the school year, when we were thrust into an exhilarating unfamiliarity of new kids, new teachers, forced to say goodbye to summer vacation. For many of us the scent of burning leaves calls up an ocean of nameless feelings as old as our bones. Perhaps fall simply reminds us of the swift passing of our life-times; all the more reason to learn to weed needless pain from our days, and to cultivate a sense that each of us, like all other living things, is a brief time and place where, magically, the Universe becomes aware of itself. Surely the falling of bright leaves is linked to our own shedding of false hopes on our journey to our best selves.

On your seed packet with 1 BEET JUICE FINGERPRINT write: **Common Vetch (Vicia sp.)**. This annual legume has several uses for the farmer and gardener, all tied to its ability to use Rhizobia bacteria on its roots to convert atmospheric nitrogen gas to natural nitrate fertilizer. This ability also translates into high protein levels in its tissues; thus it is coveted as a feed hay for animals, as an excellent mulch and as a "green manure" if the plants are turned under the soil just as the seed pods begin to form. Protein-rich plant tissues, introduced to the subsoil while still alive, provide an excellent food source for beneficial organisms, who not only convert the "green manure" into rich humus, but also release the nutrients it contains. Vetch also makes a fine pasture plant and helps control erosion. Its delicate flowers produce edible seeds used as food by humans around the world. **Growing Instructions:** Common vetch is NOT very winter hardy, so plant it in the spring in snowy winter regions, or late fall or early winter in mild winter areas like Florida or the Caribbean. Vetch tolerates acid soil, but prefers a neutral pH, so work some crushed limestone into your soil if it is acid. Since vetch is a heavy-feeder, also work in much manure, compost, feed-grade cottonseed meal, or fish waste. Grow vetch in FULL SUN. Plant the seeds about 6 inches apart and 1 inch deep if your soil is loose and sandy, $\frac{1}{2}$ inch deep if heavy clay. Space the rows about 18 inches apart. Vetch can be grown as a potted plant if given MUCH sunlight. Try the green unripe pods in stir fry. The entire plant can also be chopped and added to your compost heap.

On your seed packet with 2 BEET JUICE FINGERPRINTS write: **Red Clover (Trifolium pratense, var. "Mammoth")**. This traditional soil-enriching plant can "fix" 114 pounds of nitrogen per acre per year. This legume is best grown as an annual, and wants a rich fertile soil of a neutral pH, so work much organic matter (and limestone if your soil is acid) into your soil before planting. Choose a full sun location, preferably where you grew a soil-exhausting heavy feeder the previous year, like corn or okra or squash. Plant the seeds in spring in harsh winter areas, in early winter in mild-climate regions. Plant the seeds about $\frac{1}{2}$ inch deep and keep the soil moist till the seedlings are established. The plants may be spaced 6-8 inches apart in rows 18 inches apart. Red clover is an excellent bee plant, makes fine hay, mulch and compost and some people enjoy a tea made from the dried flowers and leaves. Children (and adults, too) enjoy pulling out the individual florets from the flower head and sucking out the sweet nectar.

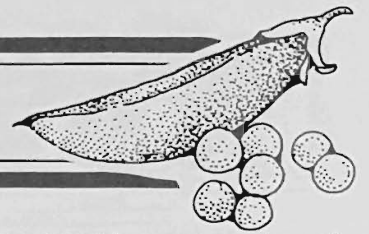
On your seed packet with 3 BEET JUICE FINGERPRINTS write: **Alfalfa (Medicago sativa var. "Spredor 2")**. Perennial in snowy winter regions, this hardy perennial has all of the uses of vetch and clover. But unlike them, this variety thrives in arid regions, AND, unlike other alfalfa varieties, spreads by underground runners. Tests at the Lasseter Ranch in arid Colorado show "Spredor 2" requires NO irrigation to germinate and establish itself, just a light mulch of hay applied the day the seeds are broadcast, although it would not complain if given supplemental watering. It prefers a rich soil of neutral pH, and like most hardy perennials needs a winter dormancy to do well. For this reason alfalfa does not usually do well in the Deep South and other hot, humid, mild winter areas. Plant the seeds about $\frac{1}{2}$ inch deep, and for best germination keep the seed bed damp. All alfalfas need full sun, and produce fine feed for chickens (raw), cured hay, mulch (fresh or dried) and like other legumes employs rhizobia bacteria to add nitrogen to its own soil.

***Note:** All 3 seed types have been pre-innoculated with Rhizobia bacteria in a flaxseed extract seed-coating base to insure adhesion.



A special welcome to Father Gerardo Stookey, first reader in Nicaragua, Mr. F. Phillet, first reader in Canada, Christine Lauterborn, first reader in St. Thomas, Virgin Islands, Billie Jo Secrist, first reader in Alaska, Jane Bowling & Thor Anderson, first readers in Missouri, Ralph Presnall, first reader in Hawaii, Laura Fisher, first reader in Utah. Special thanks to Barbara Wigginton, Joe Weintraub, Ed Dudas, Mark & Noa Flock and the others who've given multiple gift subscriptions to friends and relatives!!!

"GIVE PEAS A CHANCE" by Yogi Ono

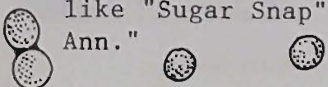
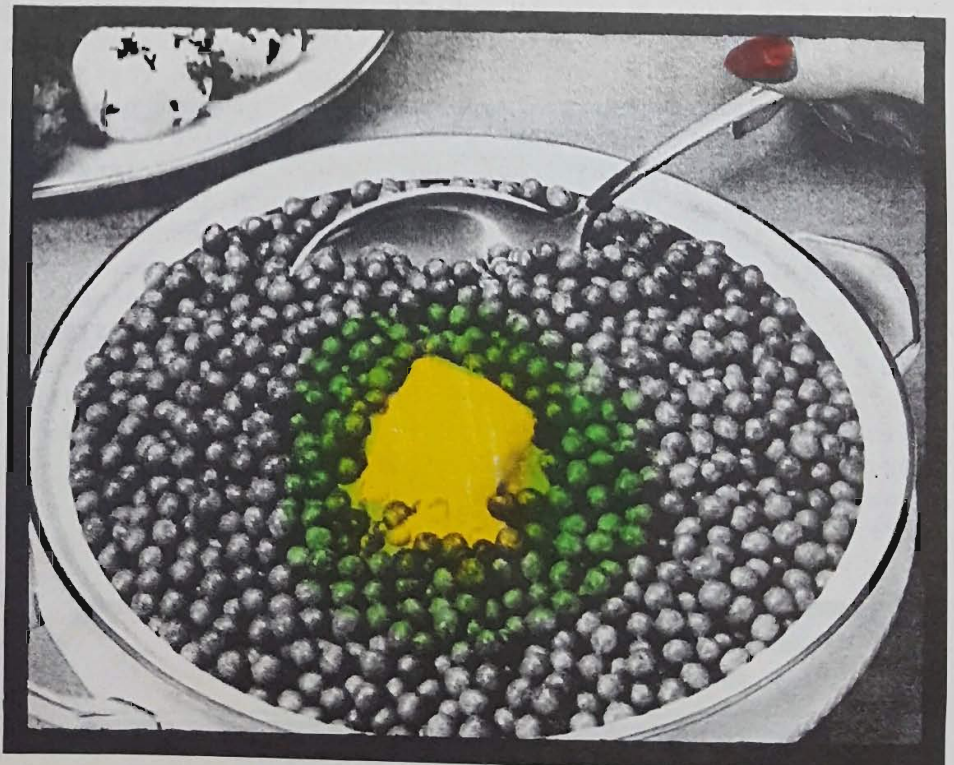


Everybody's talkin' 'bout pesticides and herbicides, compost and glasnost, Dan Quayle and sand pails...all I am saying is... Give Peas a Chance. Imagine sweet crunchy pea pods tossed raw into salads, or lightly steamed with rice and tempeh! Even the "fresh" pea pods at the produce market have wilted and lost their sweetness since picking and shipping. Don't be scared; I'll give you the straight talk on this easy-to-grow legume. With your hands, your healthy soil and an understanding of this cold-loving annual's needs, you're the one who can grow dew-kissed peas and snow peas. Why?

Pea plants (*Pisum sativum*) have just a few basic requirements:
A. COOL TEMPERATURES, especially when young. B. A RICH, FERTILE SOIL OF A NEUTRAL pH. C. FULL SUN. D. STEADY MOISTURE E. SUPPORT FOR THE VINES. F. STEADY PICKING OF THE PODS to encourage more to form.

Can peas tolerate frost? A thousand times, yes! Can they withstand high heat and humidity? No! So if you live in a mild climate region like peninsular Florida, southern California, St. Croix, coastal Texas or Nicaragua, begin planting peas in November and stop by February 1. That way, they'll mature before spring heat settles in. This intolerance of heat is why many first efforts to grow peas fails. If you live in a snowy winter area, plant your pea seeds as soon as the soil thaws. If there's a late snow or frost, don't worry, don't have a sleepless night, even if the next morning finds you walking on thin ice while inspecting your pea patch; even if the young plants freeze SOLID they'll be fine. What WILL kill them is HEAT, like in mid-summer New York. Proper planting time is critical.

Be sure to choose a full sun garden site. Cover the soil with plenty of organic matter: horse or chicken poop, grass clippings, chopped hay, seaweed, cottonseed meal (feed grade), compost, alfalfa meal or some other high-nitrogen material. If soil in your area is acid (Call your Extension Service to find out) heavily sprinkle crushed dolomitic limestone all over the garden too, to neutralize the acid AND to supply vital calcium and magnesium. Peas hate acid soil. Turn the soil shovelful by shovelful to incorporate the organic matter and limestone down deep. Then mulch the soil with 6 inches of hay, straw, grass clippings, seaweed gathered from the beach or freshly-cut alfalfa...this keeps the soil moist between waterings. Use your hands to "part" the mulch to expose a row of soil. Inoculate your pea seeds with nitrogen-fixing rhizobia bacteria from a nursery. Plant the seeds 2" deep in loose sandy soil, 1" deep in heavy clay. Insert 4 foot high branches along the row...your peas, about 6" apart, will grow up the branches. Water deeply after planting, weekly thereafter. Within 6 weeks pods will form from the flowers; pick them every few days and many more will form till spring and early summer heat kills the vines. Never say goodbye to pea culture: cool weather will return next year. All I am saying is...Give Peas a Chance! Hey hey hey, Boo Boo! I'm talkin' to you! Try varieties like "Sugar Snap" and "Sugar Ann."





Are you a frustrated organic gardener living in an apartment or condominium? Do you dream of eating the literal fruits of your loving labor? Well, long no more, for if you have a bright, sunny SOUTH or EAST window, you can grow oodles of fresh

produce all year long, even in winter. How? Well I'm glad you asked. **FIRST:** Get some growing containers of at least ONE GALLON capacity. 10 inch diameter clay pots are nice and can be gotten for \$2 on sale. Buy drainage dishes to go with them. Or you can recycle 1 gallon milk jugs or 2 gallon rectangular plastic water jugs, the ones with a spigot. Good drainage is ESSENTIAL, so poke a bunch of drainage holes in the bottom of each one. You can fashion a matching drainage tray by cutting off the bottom 2 inches of one jug and slipping it under the jug you are using as a growing container...when it gets full, just slip it off and use the accumulated water to water a plant. **SECOND:** If your window sill is too narrow for your pots, you can widen it easily with the correct length of a 1" X 12" board laid along the full width of the window sill. **THIRD:** Obtain some rich compost or some composted HORSE manure from a local stall if possible. Also get a 5 lb. bag of crushed limestone, preferably dolomitic limestone (it's rich in vital magnesium). Be sure that the horse stalls are not sprayed with pesticides to control flies! **FOURTH:** Cover the bottom of each pot with 2 inches of either straw, dried grass clippings or dried leaves to keep the soil from washing out the drainage holes. This material will also slowly compost in the pot, enriching your soil. Mix 2 table-spoons of crushed limestone to each gallon of soil (to neutralize excess acidity and to provide the calcium and magnesium plants MUST have). Fill each pot to 2" below the rim. **FIFTH:** Plant your crop. Avoid seeds at first, unless you have an EXTREMELY sunny balcony or patio to set the pots on. Emerging seedlings need a GREAT deal of direct sun or they will get leggy and flop over...not good for your confidence as an apartment gardener. Instead, buy organically-grown BEETS, CARROTS, TURNIPS, DAIKONS, GARLIC, SCALLIONS, LEEKS, RUTABAGAS or a whole CELERY. You can crowd them a bit in a pot, say 3 beets or garlics or one celery. Why replant a pre-grown crop? Well, I'm glad you asked. These plants are either biennial or perennial, and so if replanted will begin growing again. All of them produce leaves that if snipped off make fine additions to salads, soups, omelettes and stir fry. Garlic bulbs, for example, will produce vast amounts of chive-like leaves that give a rich, warm flavor to winter soups, as will freshly-harvested celery leaves. If you wish to try growing basil, broccoli, perennial herbs, tomatoes, peppers or other non-root crops, BUY YOUNG PLANTS IN 6 PACKS, at least at first. Trying them from seed from the very start can be discouraging. Another source of plants is a friend with an outside garden...if you live in a snowy climate region, rescue from their garden adult broccoli, pepper, collard, Brussel's Sprout or basil plants the day before the first freeze of the season is expected to arrive. Cut the plant back by HALF to compensate for all that root loss. Remove ALL the large adult leaves, as they will likely falter and drop anyway, stressing the plant. Plant the sorry-looking remnants in your pots, and in a few weeks new growth will emerge. Some people prefer broccoli leaves to the buds; your rescued plant will put out tender leaves all winter long. **SIXTH** and last, keep your window farm moist but not soggy, and fertilize every month with weak fish emulsion or non-salty kitchen waste buzzed with water in your blender. So...do you remember Oliver Wendell Douglas from "Green Acres" growing crops in his penthouse? You can do it too! For effect, buy a toy pig, name it "Arnold" and set it near your window farm. "Eat Hootersville rutabagas!"

apartment
apartment



Open Bay-Window Garden.

"Republicans understand the importance of the bondage between parent and child." Dan Quayle

HURT GIRL

a sestina

Somewhere in the darkness
a cat springs
into orbit
encircling its prey, touching
flesh with its fangs for no reason
tearing flesh and leaving meaty wounds for the flies

If I could fly
against this darkness
I could find reasons
for the spiraling years. Spring
is out of touch,
comes suddenly, without knowing winter's orbit

A boy's cigarette smoke orbits
the table, flies
into the mouth of a girl who is touched,
that girl is me, in the darkness,
in the shadows, I am looking for a spring,
a river, some reason

There is no reason
to be found in a tavern. Still I orbit
the room, searching for a man who will spring
for a drink for a barfly
like me. There is something to be said for the darkness
of his touch

and his touch
is the cool dry argument of reason
is the hot wet feel of passion in the darkness,
he's not in my social orbit,
what a laugh. I stretch my throat like a crane that cannot fly,
like a wounded bird that can't return home with the spring

I can feel in this barstool the springs
are rusted and broken. The touch
of his fingertips is like a fly
walking over my knees. There's no reason
for his heart to orbit
mine in this darkness.

Yet the planets spring into some sort of reason
when he touches me, they turn in their orbits
like angels, flying me out of my darkness.

Renee' Ashley

BIAFRAN MOTHER AND CHILD (a photograph)

cheeks caved in to suck the useless skin
these breasts like naked black balloons
left withering in the sun
I think I am this milkless mother
with the vacant eyes
and you the child who never
cries but grows thinner
each day, absently fingering your
matted hair, gently, like a wound.
These breasts were emptied long ago
so that you've forgotten your hunger
and the camera almost captures the trace of
a curious smile.

Renee' Ashley

Breath's Blessing

Cool dew of morning seeps into
the azure sky,
Where sun-drenched droplets
become air.

A spider's lace web flashes in
the light,
As moss and lichen breathe
over their rock-homes.

The scent of pine bark, rich
with honey golden sap,
Is gathered to me on
Saturated currents.

Delicately feeling, touching,
smelling the sacred earth;
Heart quivering,
Sun burning hot,
I exhale.

The warm wind scales the rock-
face, whispers by alpine
saxifrage,
across the prairie
and to the coastal sea;

Around the world and back,
resting as a crimson blush
on my skin.

Francine Wynkoop

Then Fly Free

When trees shed golden leaves and blind men see
The sleeping secret glint of diamond light,
The stars I caught in jars can then fly free.

The ancient code is broken with a key
Of silent silver flashes speaking bright
When trees shed golden leaves and blind men see.

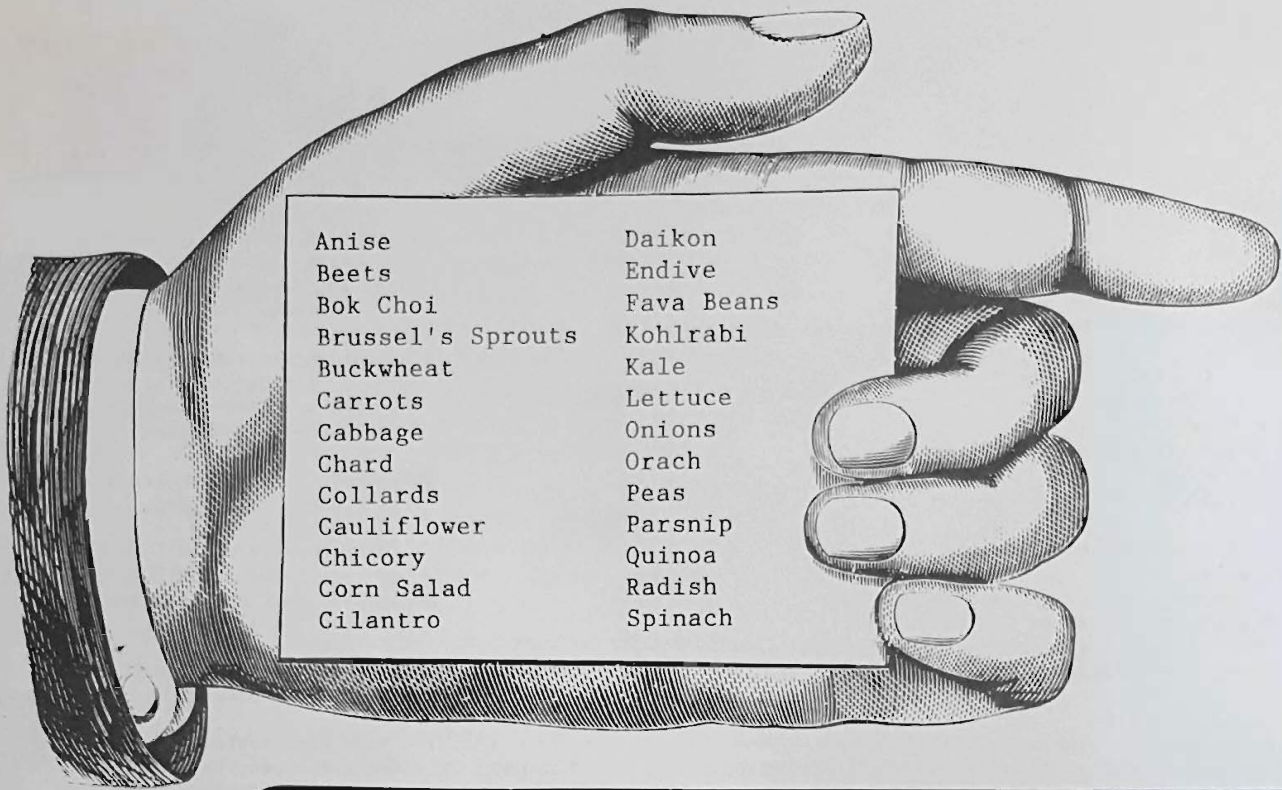
With spider webs I spin a canopy
And in its camber sail concealed from sight;
Then stars I caught in jars can then fly free.

I weave new dreams in lace of what might be--
I'll sow the fields with windsongs lovers write
When trees shed golden leaves and blind men see.

Free-falling fast without a guarantee,
The fear flung out in arcing trails of white,
The stars I caught in jars can then fly free.

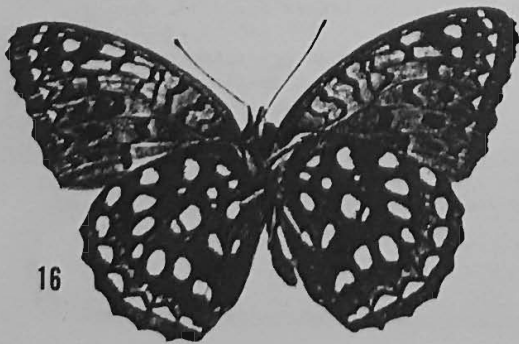
A wolf will howl the full moon down for me,
And we will ride the wild wet road of night
When trees shed golden leaves and blind men see;
The stars I caught in jars can then fly free.

Linda Sarbo



- | | |
|-------------------|------------|
| Anise | Daikon |
| Beets | Endive |
| Bok Choi | Fava Beans |
| Brussel's Sprouts | Kohlrabi |
| Buckwheat | Kale |
| Carrots | Lettuce |
| Cabbage | Onions |
| Chard | Orach |
| Collards | Peas |
| Cauliflower | Parsnip |
| Chicory | Quinoa |
| Corn Salad | Radish |
| Cilantro | Spinach |

...Broccoli, parsley, chives, mustard, garlic, radicchio, canola, dill, leeks, basella, fennel, tat soi, turnip, rutabagas, wong bok.



Those of us over 35 sometimes feel certain that there were a whole lot more fireflies and butterflies when we were kids. Perhaps we're right; in those 3 decades a lot of habitat has been lost and a whole lot of pesticides have been sprayed. By planting certain flowering plants we can give adult butterflies the nectar they need. Below are some known to be quite attractive to butterflies; those in bold lettering are especially so.

GARDEN FLOWERS

- | | | |
|----------------------|-------------------------|-----------------------|
| Ageratum | Scabiosa | Hawthorn |
| Monarda | Sedum | Huckleberry |
| Iberis | Shasta daisy | Lilac |
| Coneflower | Sweet Alyssum | Mockorange |
| Coreopsis | Sweet William | Redbud |
| Cosmos | Verbena | Spirea |
| Daylily | Zinnia | Weigela |
| Gaillardia | | |
| Lantana | <u>TREES AND SHRUBS</u> | <u>WILDFLOWERS</u> |
| Lobelia | Beauty bush | Asters |
| Loosestrife | Blueberry | Black-eyed Susan |
| Mignonette | Buckeye | Butterfly Weed |
| Morning Glory | Bush Honeysuckle | Cornflower |
| Nicotiana | Butterfly Bush | Dandelion |
| Phlox | Fruit trees | Goldenrod |

TWIN PEATS

by David Lynchmob



Who killed Laura's palm tree? Why were her once bright Queen Elizabeth roses now a dull eraser head pink? Why were the once blue velvety petals of her Dutch irises a faded memory? Elementary. Her sandy soil was a veritable dune, poor in nutrients and nearly absent of organic matter. "You put a disease in me" Laura's palm tree would surely have told her (if only it could have) as Laura, one sunny spring morning, dumped chemical fertilizer on its roots, meaning well but sadly misinformed. But, oddly enough, a new palm tree now thrives in her yard. And something else has changed... her soil used to be thin, sandy and pale. Now it's dark. And rich. Why?

Shortly after Laura's palm tree died, Detective Pooper came to Timbertown to solve the mystery. As he examined the dead palm log, it told him something. "Add peat! Add peat!". Munching a glazed donut and sipping a cup of joe, he was startled by the log's comment. But at last an ear to the true cause of the tragic death had been found. All that remained was to ponder which of the two main types of peat the log cried out for, woody or sphagnum.

Detective Pooper knew several things... Peats of both types tended to be quite acidic (as had been Jack Dunno's comments about Laura's gardening ability when he was questioned). Both peats are also quite low in available plant nutrients. But they also help soil hold water and nutrients. They loosen heavy clay soils and bind together loose sandy soils (like Laura's) and both aid root growth. Both are usually free of weed seeds and harmful organisms. But, curiously enough, the two peats are yes, quite different, quite different indeed.

Sphagnum, or "Canadian" peat, is a light, fluffy, reddish-brown, rather expensive soil amendment usually purchased in big plastic bags at nurseries. Made of partially decomposed sphagnum moss, it is used in potting mixes and for enlivening garden soils. On the other hand, "woody" peat is formed over the centuries in swamps from the slow accumulation of litter from trees, shrubs and undergrowth. It's a dark brown, nearly black when damp, heavy and crumbly in texture and when fully decomposed greatly improves garden soil. So Detective Pooper asked Laura's cranky neighbor Frank Tolbooth, who had been watching him with steely, deranged eyes while sipping a Pabst Blue Ribbon, if he knew of a nearby landscape supply company. Being from the neighborhood, the neighbor knew. Detective Pooper smiled wisely moments later after calling the company and learning that "woody" peat was by far the best deal. He had 10 cubic yards delivered to Laura's only yard.

He radioed for help from the young and handsome local sheriff, Harry S. Trueblue, who politely tipped his hat as an attractive young couple walked by. First, Detective Pooper and he spread the woody peat over Laura's yard in a 4 inch thick layer, along with a heavy sprinkling of dolomitic limestone to neutralize all that acid AND to supply the calcium and magnesium vital to plant life. They then broadcast a ¼ inch thick layer of soybean meal, not only to feed the plants but primarily soil organisms, who will in the end release the simpler compounds absorbed by plant roots. Using shovels they put their backs into turning the soil, peat, limestone and meal upside down, shovelful by shovelful, so that the process of healing Laura's sad soil could begin. Detective Pooper then planted a new palm tree, adding 1 cup of Epsom Salts to the soil in the planting hole, since palms need extra magnesium. Tamping the soil into place with his hands, he smiled upon noticing a robin singing from a nearby branch. Sheriff Harry S. Trueblue smiled too. Standing confidently, Detective Pooper stroked his prominent furrowed chin after planting dozens of new Dutch Iris bulbs, imagining their future pastel blooms nodding in a breeze like candy-colored clowns.

Who killed Laura's palm tree? Laura did. Her soil was once thin, sandy and pale. Now it's dark. Detective Pooper made it happen. He's so phukin suave.

The Wall Street Kernel

CREATING CRUELTY-FREE PORTFOLIOS by Irving R. Ravine

Investors' biggest victories often result from buying into neophyte firms that express and serve emerging social needs, concerns and trends. At one time microchips were a "farout" fringe product...their early backers were made rich. Now, it seems that the growing empathy and concern of millions for the needless suffering inflicted on animals may be another opportunity to "buy in cheap" into an emerging growth industry while contributing positive energy to a fine cause; after all, why hold a rabbit immobile in a body brace, pin its eyes open and ulcerate its corneas (without anesthesia) with oven cleaner to "learn" that said cleaner will damage a living eye. Listed below are some companies, many young and growing, that manufacture and/or sell "cruelty-free" products. They not only refuse to use animals for pointless, cruel tests, they also refuse to use animals as ingredients, a truly vegan product line. At the time of this writing stock symbols for those traded on the exchanges were not available; ask your broker to do a bit of research for you regarding their financial standing, corporate structure, trading volatility, and annual growth rate. Conscientious investing can enrich both your financial AND your spiritual portfolios.

ABENTERPRISES, P.O. Box 120220
Staten Island, NY 10312-0006
(718) 948-2622. Household and personal care products.

ALFIN FRAGRANCES, INC. 15 Maple Street, Norwood, NJ 07648 (201) 767-6880. Beauty products.

AURA CACIA, INC. P.O. Box 391, Weaverville, CA 96093 (916) 623-3301. Beauty products.

ALLENS NATURALLY, P.O. Box 339, Dept. T, Farmington, MI 48332 (313) 453-5410. Home care products.

THE MURPHY-PHOENIX COMPANY
P.O. Box 22930, Beachwood, Ohio, 44122. (216) 831-0404. Household products, including Murphy's Oil Soap.

BEAUTY WITHOUT CRUELTY, LTD. -
PAMELA MARSEN, INC. P.O. Box 119, Teaneck, NJ 07666 (201) 836-7820. Beauty products firm based in England.

AESOP UNLIMITED, 55 Fenno St. P.O. Box 315, N. Cambridge, MA. 02140. Leather-free goods.

DR. E. H. BRONNER, P.O. Box 28, Escondido, CA 92025 (619) 745-7069. Toiletries, food supplements.

DESERT ESSENCE, P.O. Box 588, Topanga, CA 90290 (213) 455-1046. Beauty and health-related goods.

KEY WEST FRAGRANCE AND COSMETIC FACTORY. P.O. Box 1079, 524 Front St., Key West, FL 33041 (800) 445-2563, in Florida dial 1-(800)-433-2563.

WARNER-LAMBERT CO. 201 Taboar Rd., Morris Plains, NJ 07950 (201) 540-2000. Manufactures Listerine, Certs, Clorets, Efferdent, Listermint.

BUG-OFF, Route 3, Box 27A, Lexington, VA 24450. (703) 463-1760. Makes and sells a bug repellent made of natural oils.

FAULTLESS STARCH/BON AMI CO. 1025 W. 8th St., Kansas City, MO. 64101 (816) 842-2939. Laundry starch, scouring powder, cleaning products never tested on animals.



we'll berry you!

by Anita Krushev

Vell,vell,vell,dahlinks,back in the U.S.S.R. our wise country comrades have long grown berry vines and bushes to guarantee our victorious peoples fresh,nutritious fruit each glorious year,for these plants demand leetle,only full sun,a thick mulch and a good watering every vonce in a vwhile. You arrogant expansionistic Vesterners call the growing of perennial food plants "permaculture" as though it were a new thing invented by you. But surely as I'm banging my high heel on this podium,I'm tellink you now that self-reliant peoples in our Motherland have long grown berry plants to produce a storable source of natural Vitamin C and good sweet flavorings. Plus,berry plants give us formidable barriers to invading humans,animals and the cold vinter vind.

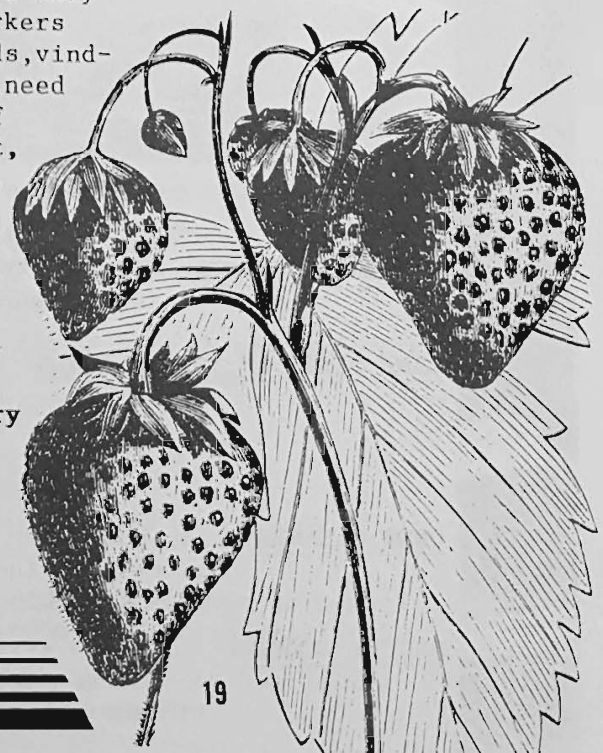
Dahlinks,the **Bramble Fruits**,being members of the Rose Family,produce nearly impenetrable thickets also excellent for controllink erosion on steep banks. Their young leaves,when dried,give us medicinal bitter teas. And vwhile all the Bramble Fruits bear heavily each year,the common **Blackberry** produces vell even where vinters are mild;unlike raspberries and dewberries,it does NOT need an extended vinter dormancy. So you decadent,bourgeois property holders in southern California,southern Florida and other mild regions can grow them (no doubt to be thornily picked by your oppressed vorking class). All the bramble berries may be preserved by drying,freezing,jams and wines. Propagation is seemple;divide established plants.

Another berry is the **Grape**;it's vwoody vines can leeve for centuries. And vwhile you elitist Imperialists see this noble fruit as fodder only for champagne for the upper class,victorious proletariats throwing off the shackles of capitalism know the grape as the source of fresh fruit and juice,tender young leaves for meat dishes,strong vwoody vines for covering fences and,of course,good red and white vines. Many kinds thrive where vinters are harsh; **Concord,Steuben,Catawba,Niagra,Cascade,Baco Noir and Villard Blanc...** these hybrids are derived from ancestral European grapes,and they actually NEED a good vinter to give them vital dormancy. For snow-free mild winter areas,grow the Muscadine type of grape,derived from wild North American grapes.

Berry bushes comprised of permanent woody branches have many uses for us on our march towards a bright future for vorkers everywhere; fresh fruits,habitats and food for wild birds,vind-breaks,and beauty for the Motherland. Many,eef not most,need a sustained vinter chilling to leeve year after year. If vinter eez snowy for you,grow berry booshes like **Currant,Gooseberry,Blueberry,Blackthorn,Bush Cherry,Sand Cherry,Cranberry,Choke Cherry,Quince,Elderberry,Rugosa Rose,European Cranberry Bush (Viburnum opulus),and Blackhaw.** Eef you leeve een a tropical or subtropical area, try growink **Acerola,Surinam Cherry or Casimiroa.**

Lastly,my leetle babushkas,there are the low-growink berry plants like **Strawberry,Physalis species** (ground cherry,tomatillas,Cape Gooseberry) and **Garden Huckleberry** (Solanum species). Our glorious peoples have long known of and grown perennial sources of fresh berries,cherishink their form,flowers and fruit. And vwhile you deluded decadent capitalists slowly go nuts...

WE'LL BERRY YOU!



'GREENER' CLEANERS



A significant source of the artificial toxic chemicals being dumped into our rivers, bays and water tables is the average kitchen cupboard that brims with the high-priced elixirs we've been brainwashed to believe we MUST use to keep our homes clean and sanitary. By using many of the simpler safer and cheaper cleaning compounds our Grandma's used we can reduce water pollution AND plug the drain in our budgets. Try some of these substitutions:

WINDOW AND MIRROR CLEANER: Fill a spray bottle with a mixture of $\frac{1}{2}$ water and $\frac{1}{2}$ cider vinegar. Mist the glass evenly then wipe it thoroughly with a sheet of newspaper for a lint-free shine.

DRAIN CLEANER: Dump in $\frac{1}{2}$ cup baking soda, then 4 cups BOILING WATER.

SCOURING POWDER: Good old-fashioned Bon Ami Cleanser is a mild but effective substitute for chlorine-based abrasive cleansers.

ROOM FRESHENERS: Burn incense in each room. Put a drop of a fragrant oil like cinammon or rose on a lightbulb BEFORE turning it on...the heat of the bulb will release the scent. Stuff your decorative throw pillows with dried mint, potpourri mix or fresh pine or cedar sawdust.

FURNITURE POLISH: Use "Murphy's Oil Soap" or a blend of 1 tsp. lemon oil in 1 pint olive oil.

MOTH BALLS: Fill mismatched socks (everybody has several) with cedar chips or dried lavender or dried wormwood (*Artemesia species*). Keep the pungent socks in drawers and closets.

ALL-PURPOSE KITCHEN AND BATHROOM CLEANERS: A. Fill a spray bottle with water and 1 tablespoon sudsy ammonia. Good for greasy jobs and CHEAP. (Ammonia IS an artificial irritant, but soil microorganisms convert it to nitrate fertilizer).
B. In another spray bottle mix $\frac{1}{4}$ cup Pine Sol or Scotch Pine-type cleaners with water. A quite natural, PLEASANT-smelling and CHEAP cleaner.

"Jeepers! I never realized..."



COPPER CLEANER: Rub copper pieces with a fine-grained salt, like popcorn salt, moistened with lemon juice or vinegar.

CARPET FRESHENER: Sprinkle a box of baking soda evenly on the carpet, let sit for an hour, then vacuum.

LIME RINGS IN TOILET BOWLS: Use a plunger to push all the water out of the bowl, then slowly pour 6 cups of cider vinegar down the sides, starting at the rim. Use your toilet brush to swish the vinegar back up the sides several times. Repeat as needed.

OVEN CLEANER: Line your oven with aluminum foil to catch the spills. Remove and recycle the foil when it is soiled. Scrub spills with a paste of baking soda and water.

SILVER CLEANER: Soak the silver pieces in 1 quart water containing 1 teaspoon cream of tartar or 1 teaspoon baking soda. Drop in a wad of aluminum foil to act as a catalyst.

Looking through the bent back tulips to see how the other half live, looking through a glass onion. The Beatles

READERS DIGESTED

Hello, Mr. Starnes...

I am so glad a friend of mine in Tampa got hold of the newspaper article regarding your doctrines and practices. I myself have been associated with horticulture for some 10 years—though I'm more an organic farmer/practitioner than the usual. Yes, please send me your year's subscription starting with your September 89 issue....I'm also interested in Mr. Weaver's home in Colorado utilizing tires as insulation.

Thank You, Sincerely,
Edward J. Dudas Jr. Clermont, FL

Thankya John for another year of priceless information from The Garden Dr....continued success.

Melinda Menne, Oak Harbor, WA

...I sure have enjoyed my one year's subscription. Know- that my best thoughts will keep winging your way.

Evelyn Bradford, Land O' Lakes, FL

Dear John;

I love your magazine & I love you. Please send a gift subscription to my friend Margaret, too. I live in a condo & am a frustrated organic gardener. Does it count that I have shit laying all over the place? ha ha ha But seriously, I grow mint in my kitchen & have numerous little friends in the sunny areas of my home. Also some plants. (ha ha ha!).

Be well. Be happy. love,
Kimberly Ashley,
Cocoa Beach, FL

John-...Keep up the good work! We are really enjoying it.

Donna Waller
Gainesville, FL

Send your comments, suggestions, complaints, gardening stories, environmental experiences but especially your ENDLESS PRAISE to: John Starnes, Editor, 1684 Willow St. Denver CO 80220

OKRA WEEDFREE'S GARDEN RAP!!

I'm a wild woman who collects the begonias;
Angel Wing or Rex I just wanna own yuz.

I got a reputation as the Queen of Agriculture;
but my green thumb's green cuz I'm a mean
master mulcher.

Chicken poop or horse poop as quick as I can get it;
makes my flowers bright and sweet
even tho it's kinda fetid.

I never use them pesticides
on them muhfuggin bugs;
I rely on beneficials and
I handpick those slugs.

I boogie in my garden to a tune so sweet,
my boom box blastin' dat Mozam Beat!

I like to call this melody my Rap City in Blue
cuz all my friends be tellin' me
that I'm a rappin' foo'!



TROPICAL TROPICS



by Dr. Jack A. Randa

A climatic region where winter frosts are infrequent, and snow nearly impossible offers its gardeners and farmers the enviable opportunity to grow food and flowers throughout the year. BUT if these folks do not know at WHICH TIME OF YEAR to grow WHICH PLANTS, they will be in opposition to BOTH the climate AND the natures of the plants themselves. The results? Heat damage, frost damage, bug damage, damage damage, stunted growth, premature flowering (bolting), you name it. For instance, each spring and summer, gardeners in central and southern Florida go strictly zonkers in their efforts to grow broccoli, bok choy, lettuce, snapdragons, pansies and other crops that are easy summer growers for northern gardeners. Florida gardeners who try to switch gears by growing tomatoes, squash, peppers, zinnias, morning glories or okra in the winter quite often lose them to sudden January frosts. What are the poor souls to do? The answer may seem like a stark and arbitrary system of classifying unrelated plants, but it is a simple reflection of the needs of the plants themselves.

FROST HARDY vegetables and flowers not only tolerate frost but very much prefer cooler weather. They can take a sudden frost but NOT a prolonged heat wave, which is what summer in Florida, S.W. coastal Texas, southern California, the Caribbean, and Gulf Coastal regions IS. So gardeners and farmers in these areas should try planting the cool weather-loving **FROST HARDY** crops in November through February, allowing them to reach maturity BEFORE the return of spring and summer heat. A partial list of these plants appears on page 16..... here's a tip for learning how to identify the **FROST HARDY** veggies; if you grow it mainly for the roots or leaves (carrots, beets, mustard, turnips, orach etc.) chances are that vegetable prefers cool weather. Why? Most of the leafy and/or root vegetables originated in cooler parts of the planet, places where spring frosts are a common hazard to sprouting seedlings. A bit of reading will teach you which annual flowers are frost hardy, as there does not seem to be a neat rule of thumb for identifying them.

FROST TENDER plants evolved in tropical or subtropical regions and so easily succumb to frost. Most tolerate heat well, although the extremely humid heat of the Caribbean, Florida and Gulf Coastal states during summer may tax these plants beyond their limits. Plant them a few weeks BEFORE the last expected frost (have frost protection on hand just in case) to give them a chance to reach maturity before mid-summer's sweltering heat. Okra and sweet potatoes are true tropicals, and so LOVE the gawdawful heat. Black-eyed peas, too. An easy rule of thumb DOES help in deciding if a crop is **FROST TENDER** or not. If it is grown primarily for the SEED-BEARING FEMALE REPRODUCTIVE ORGAN (fruit), chances are it is frost tender. Peas and fava beans are exceptions; even though we eat the seed-bearing portions, they LOVE cold weather. So melons, tomatoes, peppers, squashes, corn, eggplant, green beans, pumpkins, and cucumbers are **FROST TENDER** crops best planted when frost-danger has largely passed.

Classifying plants into these two categories not only accurately reflects the natures of the plants themselves, but also couples nicely with the fact that mild winter regions essentially have two seasons; "Cool" and "Hot-as-Hell". The successful farmer and gardener in San Diego, Tampa, St. Croix or Brownsville doesn't have a "green thumb", which is, after all, nothing more than an indicator of advanced gangrene...he or she gets plump heads of broccoli and armloads of snapdragons just by waiting for those first luscious cool autumn nights before planting. Be seeing you.

"George Bush doesn't have an integrity problem, America has a hearing problem. What the poor guy REALLY said was "NO NEW TAXIS!" Margaret Head

BAD NEWS

In just 1 week the earth's human population increases by 1.7 MILLION while another 750 THOUSAND acres of Brazilian rainforest is destroyed for the sake of human "progress".
Werner Fornos, The Progressive

Since 1945 pesticide use on U.S. farm crops has increased by 900% while crop loss due to insect damage has increased by 86%! **David Pimentel, College of Agriculture and Life Sciences, Cornell University.**

Due largely to livestock agriculture, the U.S. loses 5 BILLION tons of topsoil ANNUALLY.
Keith Akers, The Vegetarian Sourcebook

Less than $\frac{1}{4}$ of 1% of the energy needs of the U.S. is met by solar electrical production. **NBC Nightly News**

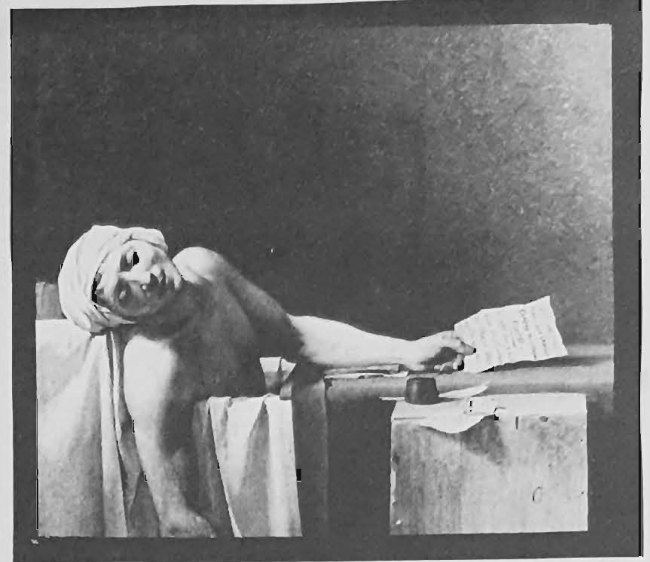
It took all of recorded history till the 1800's for the human population to reach 1 billion. By 1930 that had doubled to 2 billion. Despite the casualties of WW II, 3 billion people resided on earth by 1960. Another 1 billion people were added by 1975. By 1987 the figure was 5 billion people worldwide. Worse is the fact that in the next decade 3 billion young people (the equivalent of the ENTIRE 1960 world population) will enter their reproductive years. **Werner Fornos, The Progressive.**

Approximately 1 species of life on earth is becoming extinct every 15 minutes to make room for all those humans.

Some cattle ranchers pour gasoline into prairie dog tunnels and ignite it to kill the native mammals. **F.A.R.M. (Farm Animals Reform Movement).**

The U.S. government is so deep in debt that ALL of the federal taxes collected west of the Mississippi River each year are used to pay just the annual INTEREST on that debt.
Sen. Patrick Moynihan

*Environmental disease is incurable;
it can only be prevented.*
Barry Commoner



A single chlorine atom from a chlorofluorocarbon like Freon can destroy 100,000 radiation-blocking molecules of ozone in the stratosphere due to a virulent chain reaction involving chlorine monoxide. **Infinite Voyage, PBS**

300 million TONS of hazardous waste is produced ANNUALLY in the U.S. **Greenpeace Toxic Report.**

67% of the wild animals caught in traps for their fur are discarded as "trash" or non-target animals. **Humane Society.**

500,000 newly-hatched male chicks deemed useless by the U.S. egg industry are dumped into plastic garbage bags to suffocate. **Humane Society.**

75% of Australia's rainforests have been cut down since the arrival of European settlers. **Nature. PBS.**

It takes 1,000 gallons of water to produce just 1 McDonald's hamburger. **Vegetarianism for a World of Plenty.**

6,000 cancer drugs successful on other species failed in humans. "...animal studies prove little or nothing..." **American Medical Association.**





Some people think that organiculture is simply a matter of switching from the use of artificial pesticides to so-called "natural" ones. But even natural poisons like rotenone, nicotine sulphate, and pyrethrin can and do kill off beneficial creatures. Organiculture relies PRIMARILY on a thriving COMPLEX farm or garden population of predatory organisms that eat the plant-damaging ones. Interestingly, most of the bug-eating bugs taste bad to birds, who much prefer to eat grasshoppers, caterpillars and other crop-damaging insects. Same goes for frogs and toads, both of which are prodigious insect-eaters. Spiders are, too. So are lizards. Snakes not only eat insects but also mice, moles, and like most predators, an occasional "good" critter.

The more complex the biocommunity of the farm and garden (just as in nature), the more stable and free of rampant infestations of pest organisms it becomes. Why? Using poisons to kill off pests invariably kills off many of their natural enemies, so the pests bounce back in even greater numbers. Stated another way, poisons simplify the biocommunity, creating open niches readily filled by the pest we sought to control. Reliance on poisons thus requires from us a vigilance that robs us of much of the joy of gardening and true farming.

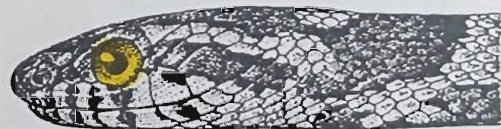
It's hard to imagine ever needing a "natural" pesticide more potent than a true soap spray.



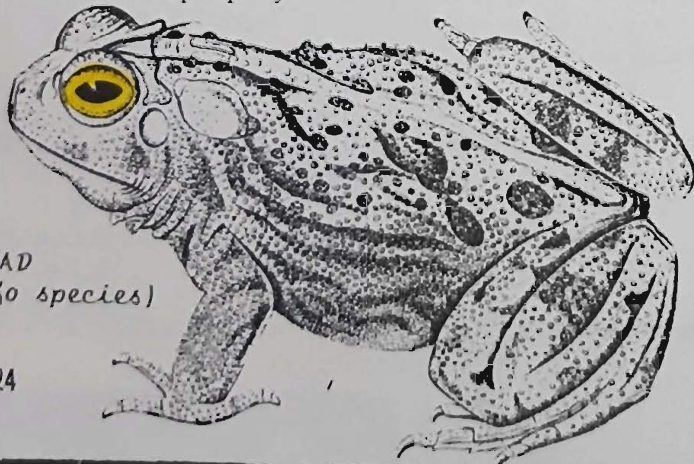
RED-EYED VIREO
(*Vireo olivaceus*)



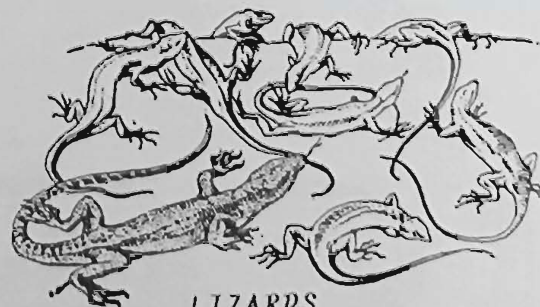
LADYBUG



RAT SNAKE
(*Elaphe guttata*)



TOAD
(*Bufo species*)



LIZARDS



PHUKINAY!!!

An eagle can see a cat-sized animal from an altitude of 3 miles! **It's A Fact.**

In the 24 hours of March 15-16, 1952, 73.62 inches of rain fell on Cilaos, La Re'Union in the Indian Ocean! **1989 Guinness Book of World Records.**

Blackpoll warblers fly 1,400 miles NON-STOP in just 80 hours during their fall migration across the Atlantic to their destination in Venezuela. **National Audubon Society.**

The 6 hottest years of this century occurred during the 1980's. **Science News.**

In 1985 and 1986, "humanitarian aid" to the U.S.-backed U.S.-created Contra rebels in Nicaragua made a delivery of \$5,670 worth of deodorant! **U.S. State Department.** (raise your hand if you're sure).

It has been estimated that Americans spend 20 billion dollars ANNUALLY on their lawns. **It's A Fact.**

In the first 48 hours of life the larvae of the Polyphemus moth (*Antheraea polyphemus*) eats food weighing a total of 86,000 times its birth weight, which is equivalent to a 7 lb. newborn human infant consuming and excreting 301 TONS of mother's milk in two days! **1989 Guinness Book of World Records.**

In 1986 Edward Gancarz of Jacobstown, New Jersey grew a squash measuring 11 FEET in circumference and weighing 595½ pounds! **1989 Guinness Book of World Records.**

10 acres of mirrors line Donald Trump's Taj Mahal casino in Atlantic City. **Harper's.**

Hummingbirds that weigh just 4 ounces fly 500 miles NON-STOP while migrating across the Gulf of Mexico to Central America. **National Audubon Society.**

Donna Waller of Gainesville, Florida successfully grows in her garden the perennial herb comfrey (*Symphytum officinale*), a plant noted for requiring EXTENSIVE winter chilling to achieve a needed annual period of dormancy. Gainesville only gets brief episodes of frost a few times each winter.

In 1987 in Palm Beach Gardens, Florida Germaine Avert-Brown grew an 8½ FOOT tall Aztec marigold (*Tagetes erecta*). **1989 Guinness Book of World Records.**

The best mirror is an old friend.

George Herbert

SLEEP WELL ALL NIGHT WITHOUT NARCOTICS



...stop worrying about household and garden pesticides by discovering easy, inexpensive ways to grow a poison-free lawn, herbs, flowers and veggies! Learn how you and your family can live Eco-Logical lives without sacrificing the comforts you've worked so hard to finally have. HOW? Subscribe NOW to THE GARDEN DOCTOR. Each quarterly issue is hand-colored, AD-FREE, and also gives you 3 PACKS OF UNUSUAL SEEDS, with complete growing instructions! It's UPBEAT, OFFBEAT, HARD-TO-BEAT, but terrific reviews in national magazines, local newspapers and organization newsletters say it best:

"The Garden Doctor is so rich in sound advice, compassionate editorializing and humanistic humor that it's impossible to encapsulate here." *Organica* Spring 1988

"...cheerfully left-liberal...giddy innocent bits of humor lend it a distinctive texture." *Utne Reader* September-October 1989

"A positive (if somewhat irreverent) voice in the gardening world is The Garden Doctor. *Herb Companion*, March 1990.

"The Garden Doctor sows the seeds of ecological revolution..." *The Tampa Tribune*, July 14, 1989

"The Garden Doctor is one of the most unusual publications I've ever seen...hand-colored...an ad-free smorgasbord of information on gardening, ecology, the environment, and politics, with an occasional poem. Because of production costs, and their "no ads" policy, **The Garden Doctor** sells for a steep \$24 for four issues. The magazine is so much fun to read, though, and packed with so much information, that it's well worth it." *East West* March 1990

"....charming..." *Environ*, Fall 1989

"an adventure...global in orientation." *Tampa Tribune*, July 14, 1989

"editor John Starnes presents serious and useful information in a manner that is purely enjoyable..." *East West*, March 1990

"...the most interesting, humorous and informative publication to come over the transom at *Organica* in many months..." *Organica*, Spring '88

"What the publication offers its elite group of subscribers...is a concise source of gardening information, sound advice on adopting an ecological lifestyle, a potpourri of observations to laugh at and three packs of unusual seeds." *Tampa Tribune*, July 14, 1989

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