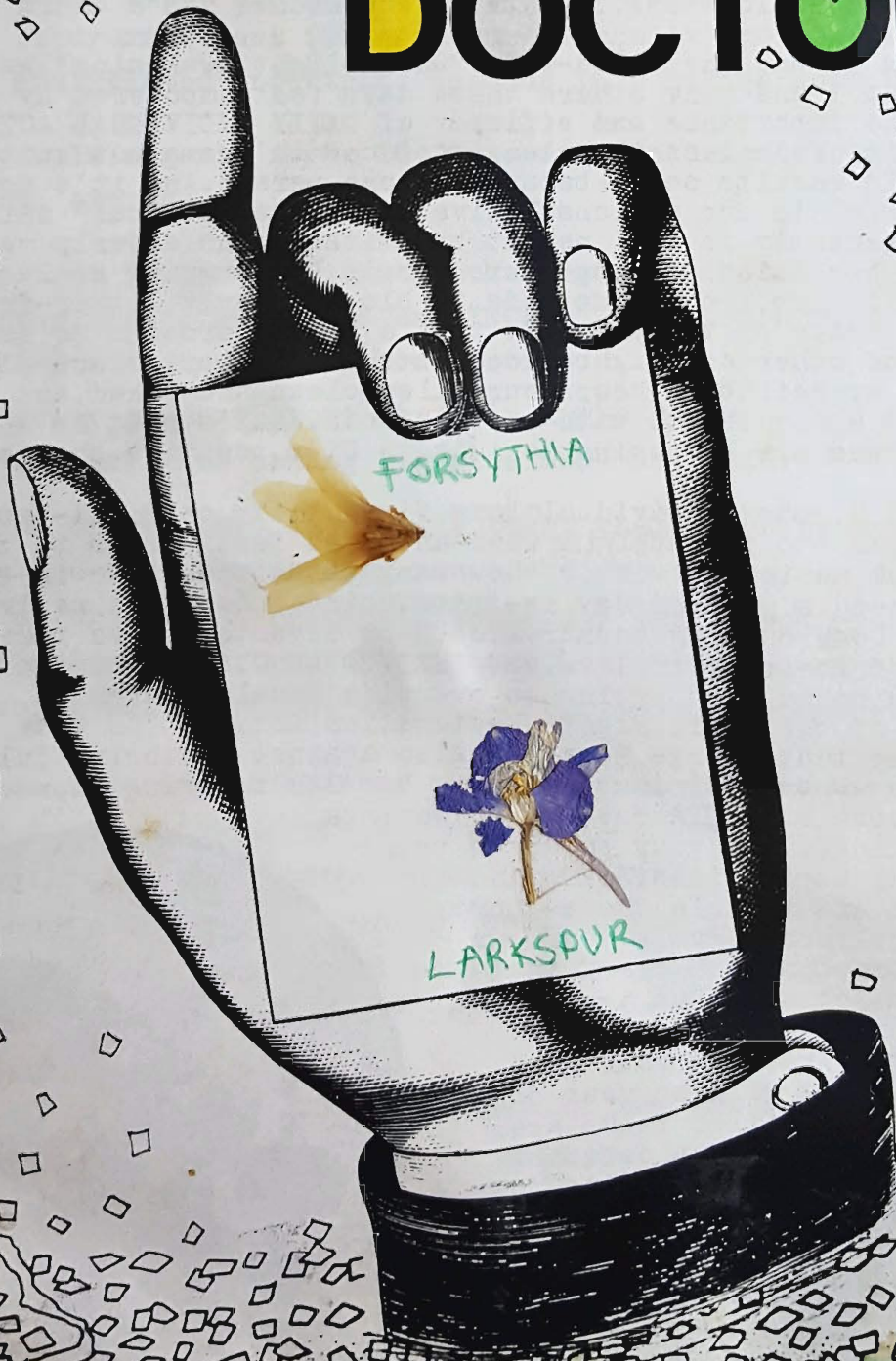


THE GARDEN DOCTOR

ISSUE NO. 3





W

hen I was 23 I felt certain that a new age of non-violence and cooperation would dawn soon if only we kept trying. A lot of us felt that way. Change, I felt, would come as a broad, historic wave cleansing human consciousness...youthful exuberance has a charm and value of its own.

Well now I'm 34 and the world-wide "white-light awakening" hasn't happened yet. But I and many others these days feel empowered by our discovery of the importance and efficacy of DAILY INDIVIDUAL ACTION. Granted, there is often less the element of cosmic drama, but quite often real-world results occur because of one person. And it's more FUN being powerful in our actions. I live in a "transitional" neighborhood until recently in decline, but by imitating an elderly man who de-litters his daily jogging route simply by carrying a plastic shopping bag with him, I now have made 11 blocks nearly litter-free, easily, with no trace of martyrdom. It took a few afternoons to get my block and one other on Neighborhood Watch...burglaries are WAY down. Vi, one of my neighbors, keeps our alley clean and raked, and we will plant it's whole length with poppies soon. What's neat is that others in the area are beginning to imitate US...positive change is a virus.

Across the U.S. many individuals have fired their chemical-based lawn "service", or stopped applying weed-and-feed fertilizers to their lawns, a powerful action in view of how many yards there are in the world. Others spend a weekend day re-introducing endangered native plants to their surrounding countryside. Many investors have taken South Africa off their portfolios. And INDIVIDUAL U.S. government representatives voted this spring to override Ronald Reagan's appalling veto of the Civil Rights Restoration Act. So YOU vote this fall, remembering that George Bush was also against restoring full civil rights to women and minority races but FOR imposing "democracy" on Central America a la CIA payoffs to Noriega and Contra funding...use your power to prune his Presidential aspirations. Spare the air a bit of poison and bicycle those short trips of a few blocks. Recycle your own aluminum cans. Compliment a clerk that does her or his job well. Put two bricks in your toilet tank to reduce water waste. Plant three trees in your yard. Pick up litter while walking your dog.

I know, bricks in toilet tanks are real low in human drama, but deciding to DO that simple act is deciding to address a problem that threatens the planet. And any "New Age" will be composed of personally-empowered moments throughout each ordinary day.

John Starnes





GOOD NEWS

Chemists at Texas A&M University have developed a simple process using superoxide ions (which occur naturally) to convert deadly PCB's and related industrial poisons into baking soda and salt!

Large-scale organic farms in India are yielding 2-3 times the national average.

In the last few years Nicaragua has reduced the use of pesticides in cotton fields by 30-40% and INCREASED yields by 15%.... this is a step in the right direction.

The Safeway grocery store chain in England now offers organically grown produce, thus making its name more accurate.

ChemLawn (nice name) is finally being challenged by several states and cities regarding its practice of spraying a whole range of untested herbicides, fungicides and insecticides on people's lawns. Ever wonder how many kids roll around on grass glistening with diazinon and 2,4-D? No wonder Johnny can't read.

Japanese industry efficiency now uses just $\frac{1}{2}$ as much energy as does U.S. industry to produce each dollar equivalent of GNP, thus polluting the biosphere that much less.

Some large-scale rice farms in Thailand now grow fish in the paddies; the fish eat insect pests of the rice, their droppings fertilize the rice, and now harvest time yields rice AND fish. Neat huh?

Leon Carney of Murray County, Minnesota has won a court battle after his 320 acres were sprayed with the herbicide 2,4-D without his consent. Even though the spraying apparently killed nearly 9,000 of his trees and $2\frac{1}{2}$ acres of ginseng, he was billed \$1,055! When he refused to pay, the county had gotten a judgement against him for delinquent taxes. The appellate court sided with Leon, who is now suing for \$800,000. The weed inspector responsible for the spraying had no training in weed control or herbicide use!

SPRING TWILIGHT

the azalea bushes are on fire
and gardenias white as angel wings
breathe perfume at the dusky shore
it's a good night to sit on
the front porch swing and gossip
or sing old time gospel songs, because
there's something in the air
besides gardenias and lightning bugs
something bright as flowers
something light as moths
which flutter at the yellow lamp
beside the door
there's something special in the air
shh, you can almost hear it
maybe it's
a promise

Renee' Ashley



Forsythia

a conservative government is organized hypocrisy. Benjamin Disraeli 1804-1881

A man should BE upright, not be KEPT upright. Marcus Aurelius Antoninus AD 15

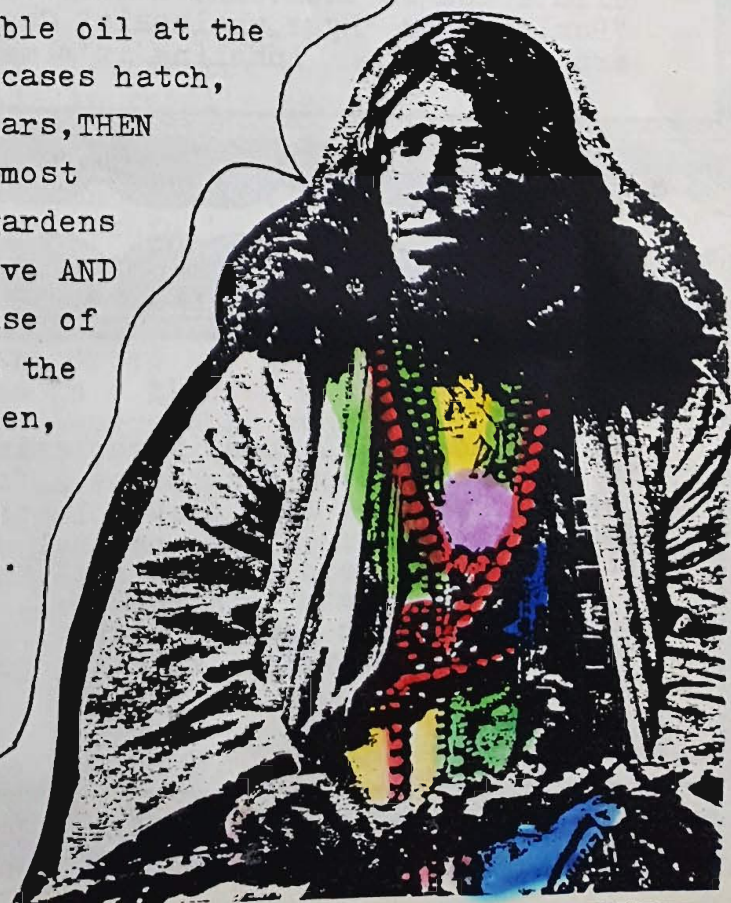
Insects belong in the garden, all kinds, each contributing to the balanced bio-community that a healthy garden is. When white hunters killed off the buffalo herds, the meat-eating animals either starved to death or left the plains. As a result, crops were ravaged by plant-eating rodents enjoying a population boom. When the remaining coyotes were nearly wiped out years later by ranchers, this happened again. So if the gardener wipes out ALL the aphids or mites in the garden, predatory insects like lacewings, praying mantis and ladybugs will leave in search of prey, leaving the garden wide open to attack by herbivorous insects.

My point is this, Grasshopper... don't rush to use even natural insecticides every time you see a bug on your plants... too many people seek a sterile yard with nothing moving except the kids and the dog. A few insects here and there keep birds coming back to eat others. And most carnivorous bugs taste terrible to birds, just as humans rarely eat carnivorous mammals. A few holes in your broccoli leaves won't reduce your harvest. If your garden gets a moderate attack of caterpillars, hand-pick them and toss them into the fishpond or drop them into a jar with a couple inches of vegetable oil at the bottom. But if several butterfly egg cases hatch, releasing hundreds of baby caterpillars, THEN spray the garden with Thuricide. The most productive, attractive and soothing gardens are teeming with life in balance, above AND below the soil line. Indiscriminate use of even natural pesticides will disrupt the health and productivity of your garden, vegetables and ornamentals alike. So regard the pesticides I'm listing as emergency measures only, last resorts.

Cosmically Yours,

Chloro Phil

Turn The Page

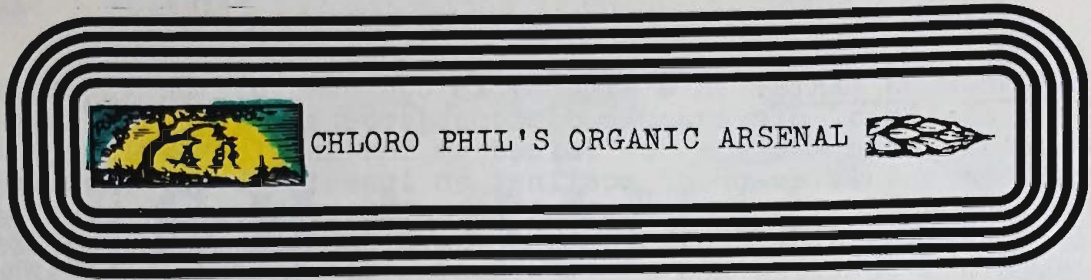


I fart, therefore I am. John Starnes 1953-


Sample Packet 1: Bacillus Thuringiensis is a natural bacteria that kills ONLY the caterpillars of moths and butterflies...they take a bite of sprayed leaf, stop eating an hour later then die in 3 days, releasing more bacteria as they decay. Buy Thuricide or Dipel powder in 4 lb. bags for about \$3 at feedstores or thoughtful nurseries. Mix 3 tablespoons into 1 gallon water that has been aged 24 hours (to release the chlorine) and pour into a tank or trigger sprayer. Or mix 6 tablespoons in 1 quart aged water in your hose-end sprayer. Spray the affected plants or lawn till dripping. Tent caterpillars, sod webworms, corn earworms, cabbage loopers, inchworms, tomato hornworms and others are controlled safely, quickly and very cheaply.

Sample Packet 2: Hey, how many magazines send you bird shit? This exotic material teems with beneficial bacteria, supplies organic material AND the 3 primary plant macro-nutrients nitrogen, phosphorus and potassium at a typical analysis of 4-3-2. Mix the contents of your packet with 1 quart aged water, let steep for a day then treat your potted plants to a drenching with this tea. Or once a year apply $\frac{1}{4}$ " dried chicken dooki to the soil in your garden and water in for an hour to dissolve the ammonia and methane gases and carry them to the roots. May burn young seedlings, so use a dilute tea on them. Find a source in the Yellow Pages under either "Poultry" or "Eggs, wholesale". Caution: you may have a religious experience after inhaling it's memorable fragrance.

Sample Packet 3: Legume-innoculating Bacteria live symbiotically in root nodules on peas, beans, alfalfa, clover, sweet peas and other legumes, and work WITH those plants to transfer nitrogen gas from the air into the soil as natural nitrate fertilizer! Like most plants they like a neutral soil. Mix your packet's contents with 1 gallon aged water and pour onto 10 feet of row of freshly-planted seeds or young plants to increase yields and enrich the soil terrifically. Available at nurseries and feedstores.



CHLORO PHIL'S ORGANIC ARSENAL



BACILLUS THURINGIENSIS

ROTENONE: This plant extract, also called derris, is harmless to birds and mammals but deadly to insects and fish. It was discovered by tropical Indians who pounded branches of the rotenone plant in jungle streams and then plucked paralyzed fish downstream from the water's surface. I use Hi-Lo, available at many feedstores. It is liquid rotenone in a wonderful smelling pine oil base and is effective against most insect pests at a strength of 3 tablespoons per gallon of water...add a teaspoon of castile soap shavings to each gallon for better sticking qualities.

RYANIA: This natural insecticide, like rotenone, is harmless to mammals and is extracted from a plant, in this case the roots of the RYANIA shrub. Most often sold as a powder, ryania can be mixed with water and sprayed to control many insect pests.

INCOME TAX FORMS: Early reports indicate that if used as a mulch, income tax forms confuse, anger and disorient pests then drive them underground.

NICOTINE: This highly toxic alkaloid is extracted from the tobacco plant, and will kill not only insects but people, pets, birds, reptiles, amphibians, and fish. It is readily absorbed through the skin. Most organic gardeners won't use it because it readily kills beneficial organisms. It can be bought as a ready-to-use liquid, in tobacco dust, or you can boil and strain old cigarette butts. If you must use it, be careful!

PYRETHRUM: A colorful perennial daisy, *Chrysanthemum coccineum*, is the source of this insecticide, most often sold as a powder. The petals of the "painted daisy" are dried and ground, although one can whizz the flowers and leaves in a blender with water and strain the liquid to use as a spray. Commercially available pyrethrum liquids usually, unfortunately, also contain toxic synthetic "boosters" like piperonyl butoxide.

WATER: This exotic material, if sprayed with force, dislodges slow-moving pests like mites, aphids, mealy bugs and white fly larvae that often die of starvation before making it up the plant again. This natural pesticide so far seems safe to humans and wildlife, is easy to prepare and poses no danger to lakes and streams, although it has been shown to corrode the fenders of 1957 Buicks.

All things considered, our only reasonable choice is to be happy. John Starnes 1953-



The goal of life is living in agreement with nature. Zeno 300 B.C.

DIATOMACEOUS EARTH: This mineral is composed of the fossilized glass shells of microscopic diatoms deposited in great layers on prehistoric seabeds now raised up. The intricate glass shards puncture the water-proof coatings on insects' bodies, killing them by dessication. Cheapest at swimming pool supply houses in 25 lb. bags, diatomaceous earth is harmless to earthworms, birds, amphibians, reptiles and mammals. In fact, it is fed to livestock and even humans to kill intestinal parasites, to whom it is like broken Coke bottles are to us. It is also rubbed into a pet's fur to control fleas. Dust it liberally on plants wetted by dew or rain for better sticking, and achieve control of beetles and other hard-bodied insects.

PATUS ROBERTSONSIENSIS: This newly reborn pathogen may have value both as a repellent and as an aid to climate control. Unfortunately, it often causes nausea in those in the immediate vicinity. I would vote against its application anywhere.

PURDUE GOO: Purdue University researchers found that 5 lbs. of flour and 1 pint of buttermilk in 25 gallons of water very effectively controlled spider mites, even in orchards...the sticky mixture kills the little bastards by suffocating them.

HOT PEPPERS: Boil a few tablespoons of hot red pepper flakes in $\frac{1}{2}$ gallon water for ten minutes, strain, and add 1 tsp. shavings of Octagon Soap or any castile soap (for better sticking) and spray affected plants to repel and even kill soft-bodied insects.

NUCLEAR WASTE: This plentiful material, if applied at night, will light up the garden as you work, plus suppliers will pay YOU to use it up! Reports of effectiveness vary, but I'm told that Chernobyl is free of insect pests... and insects...and people... and livestock and.....

SABADILLA: The seeds of a South American and Mexican lily are ground to yield this powerful but expensive insecticidal powder. It is effective against "bugs" like squash bugs, chinch bugs, stink bugs, harlequin bugs plus other insects.

TRUE SOAPS are made of some fat and lye...I use Octagon Soap, but any castile soap (coconut oil and lye) will work. Whereas most bar "soap" these days is pressed detergent, true soaps in solution create an emulsion of fatty compounds that plug up insects' breathing holes. I use 1 part soap shavings to 10-15 parts water then spray using a 3 gallon sprayer, a trigger sprayer for house plants.

For a catalog containing some of these botanical insecticides plus biological controls (beneficial nematodes, praying mantis egg cases, etc.) just write:

THE NATIONAL GARDENING RESEARCH CENTER
Hwy. 48 P.O. Box 149
Sunman, IN 47041



SHARING SECRETS

Time is the most valuable thing a person can spend. Theophrastus 278 B.C.

The beginning is the most important part of the work. Plato 400 B.C.

Commercial potting soil is usually lifeless homogenized crap, but if you live in an apartment and can't easily make compost, what are you to do? Glad you asked. Enlivening dead potting soil can be done very cheaply and easily...take your pick from the "handy dandy" list below.

1. Buy alfalfa pellets at a pet store if you have a few plants, or from a feed store in 50 lb. bags if you grow an indoor jungle (about \$6 per 50 lb. bag). Lift the plant out of the pot, pour in 1 inch of alfalfa pellets, replace the plant, then work 1 inch more into the top of the soil. When potting new plants mix 1 part of this pleasant-smelling, protein-rich (thus nitrogen-rich) plant material to 3 parts potting soil.

2. Take a walk and bring home 6-inch long pieces of living twigs about 1/4 inch in diameter and stick a dozen of them vertically into the soil of each potted plant. As the live cells in the cambium layer decay, beneficial fungi and bacteria will multiply, eventually converting the woody tissue into lignin, the substance that makes forest soil spongy and luscious.

3. Bring home fresh cut clover or grass clippings from an unpoisoned lawn, or better yet, fresh leaves or discarded pea or bean pods from a friend's organic garden. Put two handfuls in your blender then fill it with bottled water, or tap water aged 24 hours to release the chlorine and/or ammonia. Whizz it all on high speed for 30 seconds...the resulting elixir will literally be ALIVE with enzymes, DNA, RNA, sugars, starches, lipids, proteins and chlorophyll. Treat the soil in your pots to this instead of a watering at least twice a year. Less effective but better than nothing is to whizz vegetative kitchen waste.

4. Fill a garbage bag with dry leaves or dry grass clippings from an unpoisoned yard, add a dozen crushed eggshells to control acidity and supply calcium, then moisten it all with a gallon of aged water to which you have added 6 tablespoons of fish emulsion (to feed bacteria and fungi). Close the bag and punch it about 20 times with a pencil to admit oxygen. Store the bag in the trunk of your car or a closet for 3-6 months and PRESTO!...you'll have LEAF MOLD, long created and coveted by English gardeners. Mix it 50/50 with potting soil.

hand - some to see is the ma - gi - cal fruit of the yum - yum tree,

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FOOD

In this culture the leaves of many edible plants are discarded with only the female reproductive (seed-bearing) organs being eaten. Not only is this very wasteful, it for me has a sexist tone to it. In contrast, the Chinese have for centuries cultivated squash, pumpkin, and luffa as much for the tender young leaves as for the fruits. They use young daylily leaves as a cooked green, as well as the flower. Greek cooking, of course, uses grape leaves to roll up spicy meat mixtures, and South Americans and Asians find the sweet thin leaves of the winged bean delicious raw or cooked. I grew them in Florida and will testify to their succulence. And my friend Renee' in Tampa looked forward more to my giving her broccoli LEAVES than the broccoli flower heads.

Pea leaves taste like pea pods, which are, in fact, modified leaves. Try them raw as a garnish or in salads...they're good in stir fries, too. Grain amaranth yields leaves that are delicious steamed for months before the seed heads form. Cauliflower, Brussel's Sprouts and kohlrabi are close relatives of collards, cabbage and broccoli, so their leaves are equally useful as cooked greens. And of course, onions and garlic, being closely related to chives, provide leaves that can be snipped into soups, gravies, salads, dips and sauces. Same goes for parsley's close relative, the carrot...carrot tops look and taste like the non-curly forms of parsley. Use them as a garnish, or finely chopped in quantity into home-made soup. Freshly-unfolded okra leaves are tender sources of greenery for hot dishes, as are hibiscus, marsh mallow, hollyhock and the ornamental garden mallows like Southern Belle...for that matter, try the huge petals of Southern Belle mallow as a nibble or for a spectacular source of color in a green salad. Young horseradish leaves, related to mustard, have a nice zing to them and also make a fine addition to salads.

I personally do not like the green taste of the leaves of wheat or alfalfa, but many people like to whizz them in a blender with ice-cold water for a healthy beverage rich in vitamins, minerals, live enzymes, chlorophyll and fiber, whereas those crops are again traditionally grown for their seeds.

Use this list of edible leaves to add a variety of flavors and textures, not to mention nutrition, to your diet. Just avoid COMPLETELY the leaves of rhubarb and those relatives of nightshade (tomato, potato, peppers, eggplant and garden huckleberry, for they are TOXIC!)

S
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...is when the northern or southern hemisphere of the earth is tilted most directly at the sun. Plant and animal life peaks.

Notice the growth of roadside weeds, remember how they looked early this spring, watch their blossoms become seeds. Note that the sun is directly overhead, unlike the winter sun that sags into the southern sky.

If you are a gardener, I suggest you do the following:

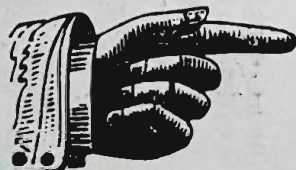
Keep Dipel or Thuricide powder on hand, as *Bacillus Thuringiensis* is wonderfully effective in controlling bad outbreaks of caterpillars.

Feed the birds daily to encourage them to hang out and eat bugs. Food scraps, old pet food, cheap birdseed from the feed-store or discarded bread from a bakery's dumpster is fine. Buy a cement birdbath or just sink a big clear drainage dish into the soil of your garden. Flush them out with the hose frequently, whichever you use.

Grind up one bar of Octagon Soap or a cheap castile soap into one gallon of hot water. To control mites, aphids and other tiny pests, spray the affected plants till dripping with soapy water, using one part soap sludge from the gallon jar, to 10-15 parts water. Use 1 part soap sludge to 6 parts water to control mites on conifers. And the lye in the soap is alkaline and thus is quite helpful in controlling fungi on roses.

Feed the soil continually with grass clippings, dog poop, chicken poop, cottonseed meal, fish tank drainings, bush trimmings, food scraps whizzed in the blender, sawdust used as kitty litter (a GREAT nitrogen source!), bird cage cleanings...anything derived from a living source.

Occasionally lie down in a cool spot on the ground and become human mulch.



Though boys throw stones at frogs in sport, the frogs do not die in sport but in earnest.

BION 280 B.C.

note that "FC" represents hot Florida and Southern California.



All these crops are frost-sensitive. Call your extension service to learn your area's average last frost date.



VEGGIES

<u>VARIETY</u>	<u>WHEN</u>	<u>EASY FROM SEED?</u>	<u>SEED DEPTH</u>	<u>EDIBLE PORTIONS</u>
EGGPLANT	MAY, JUNE (APRIL, MAY FC)	YES	1"	RIPE FRUIT
OKRA	MAY, JUNE (APRIL, MAY FC)	YES	1"	UNRIPE FRUIT, LEAVES
POLE BEANS	MAY, JUNE (APRIL, MAY FC)	YES	1"	SEEDS, PODS, LEAVES
AMARANTH	MAY, JUNE (APRIL, MAY FC)	YES	1"	LEAVES, SEEDS
PEPPERS	MAY, JUNE (APRIL, MAY FC)	YES	1"	FRUITS ONLY
SUNFLOWER	MAY, JUNE (MARCH, APRIL FC)	YES	1"	RIPE SEEDS
CORN	MAY, JUNE (MARCH, APRIL FC)	YES	1 1/2"	SILKS, SEEDS
TOMATO	MAY, JUNE (MARCH, APRIL FC)	YES	1"	FRUITS, ALL STAGES
SQUASHES, PUMPKINS	SAME AS CORN	YES	1"	FRUITS, LEAVES, FLOWERS
DILL FAMILY	MAY, JUNE (MARCH, APRIL FC)	YES	1/2"	FLOWERS, SEEDS, LEAVES

"TENDER" (SUMMER) ANNUAL FLOWERS

Summer annuals love heat but are damaged or killed by frost; hence they are "tender" to frost, so plant them after your area's frost danger has passed each spring. Sow their seeds about twice their widest diameter in sunny, rich soil and water them daily for two weeks to insure germination and survival of the seedlings. Water well twice weekly thereafter until you have added grass clippings, 1 inch every two weeks until 4 inches have accumulated. Then water every 7-10 days. Annuals sprout, grow, bloom set seed then die all in one year; if you delay seed formation by treating yourself to weekly bouquets the annuals will respond by blooming longer in an attempt to set seed. Always store your seed in your refrigerator to insure a long life for them. And cut flowers will last longer if placed in water of 110 degrees, or baby formula temperature. A few summer annuals, like Shirley Poppies, California Poppies and Sweet Peas like to germinate in cold weather, so plant their seeds 6-8 weeks before your last expected frost. In Florida and Southern California or similarly hot areas plant these cool season sprouters in mid-winter, and the tender annuals in very early spring so that they can achieve near adult size by the time the REAL heat sets in. Remember, too, that ALL new seeds will germinate better if stored in the fridge for a few days before planting.

MORNING GLORIES
MARGOLDS
ZINNIAS
CELOSIA
COSMOS
AMARANTHUS
VINCA
CLEOME
NICOTIANA
TORENIA
RED SALVIA
MOONFLOWER
COCKSCOMB
BALSAM
VERBENA
NASTURTIUM



Digitalis purpurea.
(X. 13)

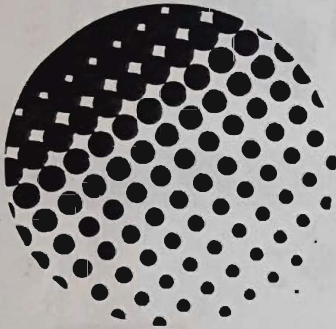
VEGETARIAN HIGH-NITROGEN FERTILIZER

- 1 part cottonseed meal
- 1 part soybean meal
- 1 part alfalfa meal
- 1 part phosphate rock powder
- 1 part granite dust or wood ash

VEGETARIAN ROOT CROP FERTILIZER

- 1 part phosphate rock powder
- 1 part cottonseed meal
- 1 part granite dust or wood ash

*find these materials at feed stores, stone-cutters, and poultry farms.

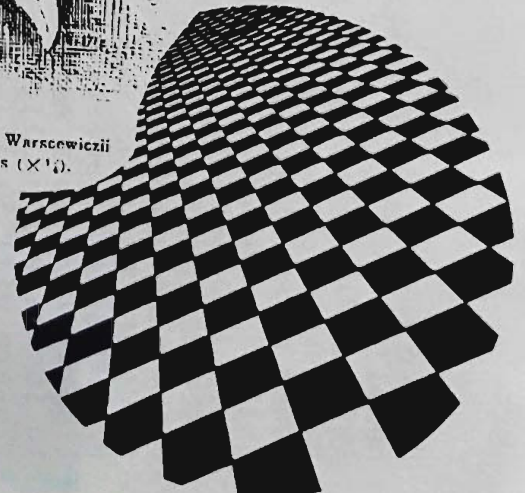
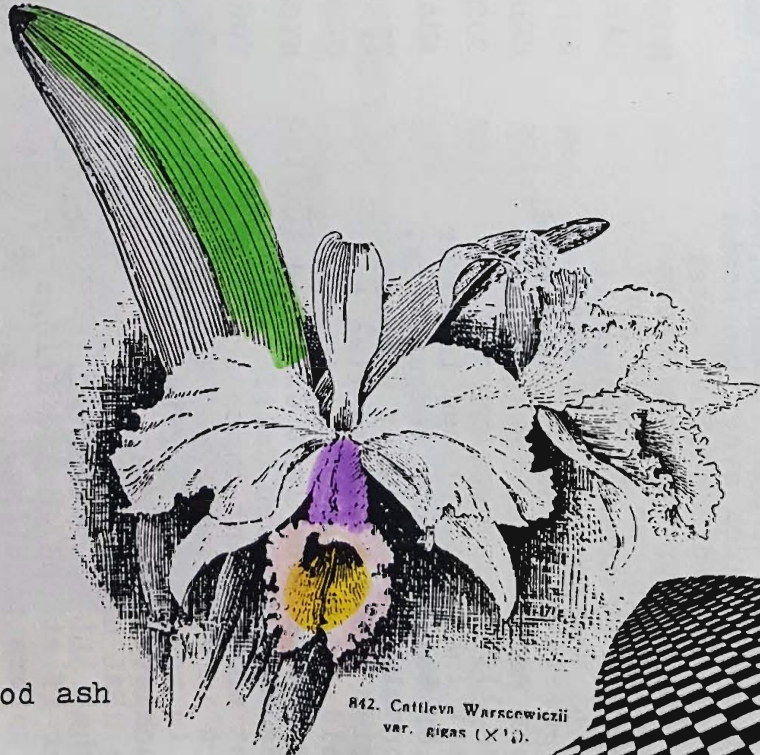


BLOOD-THIRSTY
OMNIVORE'S
FERTILIZER,
HIGH-NITROGEN

- 1 part blood meal
- 1 part cottonseed meal
- 1 part dried poultry poop
- 1 part meat-and-bone meal

BLOOD-THIRSTY
OMNIVORE'S
ROOT CROP FERTILIZER

- 1 part bone meal
- 1 part dried chicken poop
- 1 part granite dust or wood ash



In mid April of this year on a glorious Denver spring morning I was driving home from the Sunday services at the Unitarian-Universalist church I've started hanging out at. Imagine my joy upon seeing up ahead a dust devil made not of dust but of fallen pink apple blossom petals! Since I was driving I could not run and stand inside the 20 foot high swirling pink cylinder, but I'm a lucky man to have seen such a beautiful, ephemeral event, one I'll never forget.

But two weeks later I was painfully reminded of nature's other side, its apparent cruelty. On the morning of May 2 I woke up to discover huge wet snow flakes plummeting to the ground, that the previous night's vicious wet winds still raged. This I enjoyed, because the dry clay of Colorado and the dormant seeds within badly needed the moisture. Around 11 a.m. the snow ceased and I walked up the muddy alley with shovel in hand to dig up a rhubarb plant left at a home abandoned to foreclosure two years ago. But on the way there I discovered in the cold mud a broken robin's egg blown out of its nest. Half the shell was gone, revealing a chick just days away from hatching normally. So I cupped it in my hands and ran home, having noticed only a tiny spot of blood on

its egg tooth...although motionless, its cold body seemed uninjured. Once home, I saw through its translucent skin that the bright red arteries weren't pulsing, but after all it was 36 degrees outside. So I lined a lidded pot with a soft pot holder and wrapped the baby bird, still in half its shell, in the moistened cloth. I warmed the oven using the lowest setting while I tried to invent an incubator using some kerosene candles I had found in a dumpster the week before. I placed the lidded pot in the oven then continued working. Checking the chick a few moments later I found it still motionless, still very cold. So I put it back in the oven, then ran up the alley where I found an unbroken egg. With it in my shirt pocket beneath my sweater, I quickly dug up the rhubarb and returned home.

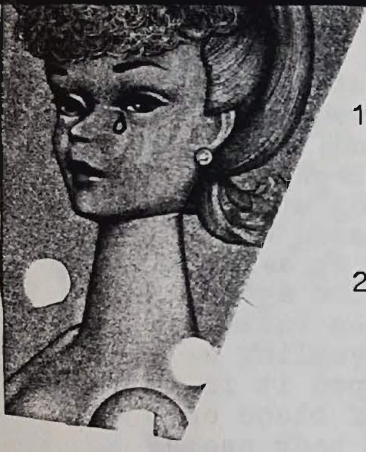
Imagine my horror to discover that the injured (dead?) robin chick had cooked in those few moments, despite the oven being set BELOW the warm setting. I'll never know if it was alive when I brought it home; nonetheless I felt terrible.

And the next morning I discovered that my "incubator" had cooked the other egg, too. I still don't know how to integrate the brutality of unborn robins being flung to icy mud days before hatching with the surge of new life that followed in the sunny days after the storm. Trees of all kinds went green, adult robins scoured my yard for worms and the seed my brother sets out. I'm told that the universe holds many moments like that, when mystery, love, and horror together hold the human heart, when all we can do is breathe and move on.

And remember, there are dust devils in this world made of flower petals.



WHY IS MARY CRYING?



Once again she planted seeds in her rich soil, envisioning plump vegetables for her body and flowers for her soul, but once again, Mary's garden is nearly bare, few seeds having seemed to have sprouted. What happened?

Mary's not alone. Many people say "I can't grow things from seeds", a harsh, self-imposed truism that results from not knowing a few key steps:

1. DON'T PLANT THE SEEDS TOO DEEP. Cover the seed with soil to a thickness of 4 times the widest diameter of the seed if your soil is light and sandy, twice the seeds widest diameter if your soil is heavy clay.
2. WATER EVERY DAY FOR TWO WEEKS 20 minutes at a time if growing tiny seeds like cabbage or alyssum...the $\frac{1}{4}$ inch of soil above them dries out quickly, and it takes only one episode of thorough drying to kill the emerging root of a sprouting seed. Drying out is THE BIGGEST REASON people fail with seeds. Big seeds, like bean, squash and nasturtium will be planted deeper due to their larger size, so a 1 hour watering twice weekly will meet their needs.
3. MULCH THE SOIL AFTER THE SEEDS SPROUT to keep the soil moist and cool. A 1 inch layer of grass clippings will do initially, but as the seedlings grow taller keep adding clippings till the soil between the plants is mulched to a thickness of 6 inches. Don't press the clippings up against the base of the plants, as this may encourage rot or slugs. If the latter show their slimy little faces, a ring of fire-place ashes around each plant will caustically fry their figurative little asses.
4. WRAP SEED STARTING TRAYS WITH SARAN WRAP to retain moisture.

Here's a Kleenex, Mary.



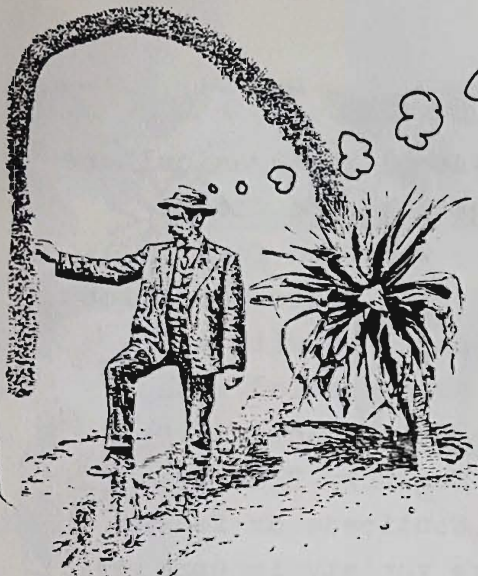
This newsletter-kit is bringing out the best in me, and I want to thank you all for supporting me with your subscriptions and kind letters of encouragement. Thanks to Craig Wood and Lloyd Hayhurst of Printech, Inc. here in Denver for reducing my printing costs again, allowing me to add 4 pages beginning this issue...goody, more room to grow into! And thanks to; Gianna Russo, Ruth Reinertsen, Rene Motta, Jo Ann Seiquist, Karen Kelly, Norma Garcia, Pat Gaddy, Corene McCollum, Annette Phillips, Julia Baraniuk, Becky Marsh, Jorli McLain, Janet Galipo, Cecelia Smart, Family Natural Health Foods, Inc., G.M. Garden Service, Inc., Elliott's Wholesale Nursery, Mary Pietsch, Vivia Hayden, A. Wydrinski, Ethel Stroh and all the rest for buying for themselves and/or a friend... "THE GARDEN DOCTOR".



Never give way to melancholy, for the habit will encroach. Sydney Smith 1771-1845

Earth is but the frozen echo of the silent voice of God. Samuel Miller Hageman 1848-1905





Agave attenuata.

PHUCKINAY!!

Kiwi fruit vines can grow 8 inches in 24 hours.

The matter inside a neutron star is so dense that a sphere of it measuring $\frac{1}{2}$ inch across would weigh ten billion pounds!

Blue thistle seeds have been known to drift for 1,000 miles.

10 of the Amazon's TRIBUTARIES are larger than the Mississippi.

In healthy organic soil earthworm poop may add 50 tons of natural nitrogen fertilizer to each acre.

The giant blue-white sun Regulus in the constellation Leo, at 5 million miles across, is 5 times wider than our own sun and is 150 times as bright.

A honey bee makes approximately 60,000 round trips of over a mile each to gather enough nectar to make 1 pound of honey. That is almost $2\frac{1}{2}$ times the circumference of the earth!

The parasitic "corpse flower" (Rafflesia) of South America has no stem or leaves and lives entirely within the underground roots of host vines. Once a year its flowers emerge from the soil and open to nearly 4 feet across, smelling like rotting flesh and pollinated solely by flies.

Leaf-cutter ants in the Amazon jungle chew up leaves into a compost in subterranean growing chambers and cultivate on it their only food, a fungus that grows nowhere else in the world but in their nests; a true symbiosis.

New fossil discoveries clearly show that pterodactyls, flying contemporaries of the dinosaurs, were fully clad in FUR!

Tritium and deuterium, naturally-occurring heavy isotopes of hydrogen; only 2 ounces of either power a 1 megaton H-Bomb.

The largest volcano known in the solar system is Olympus Mons on Mars; it covers an area the size of Arizona and is nearly 3 times the height of Mt. Everest, earth's tallest mountain at over 5 miles.

1 gram of soil rich in decaying organic matter can contain:
1 million protozoa
1 million fungi
1 thousand yeasts
1 billion bacteria
1 hundred thousand algae
and 15 million actinomycetes, closely related to bacteria.

Men never do evil so completely and cheerfully as when they do it from religious conviction.
Blaise Pascal 1623-1662



FORGET TO REMEMBER



?

....that lawns respond to organiculture as well as do vegetable and flower gardens? Don't buy weed-and-feed fertilizers laced with toxic herbicides, just interplant your lawn with a few pounds of clover seed treated with natural nitrogen-fixing bacteria. A solid stand of Kentucky Blue or St. Augustine or Centipede or fescue or any other grass variety is unnatural; monoculture presents a lawn's enemies with an uninterrupted smorgasbord, whereas a blend offers them snacks.

A lawn or garden of many varieties

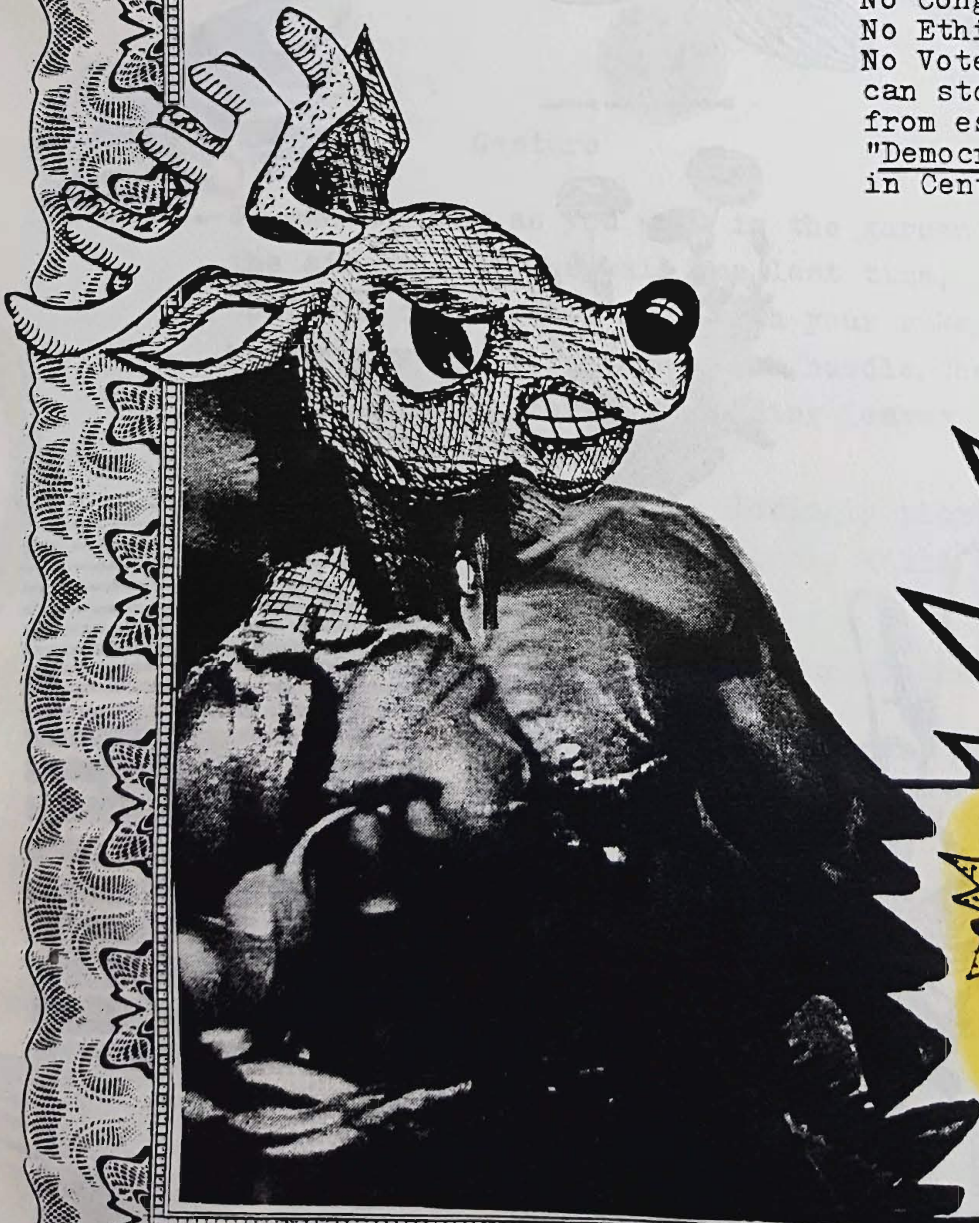
(polyculture) also harbors a greater diversity of organisms that together tend to contain pest infestations. We've been programmed by advertisers to create lawns that rob us of our weekends, screw up our budgets AND the watertable and wildlife, all the while subjecting our children and/or our pets to toxic chemicals. Below is a means of restructuring your lawn AND your attitude towards it...the American obsession with "The Perfect Lawn" is intimately tied to its depiction of a kitchen-bound Mrs. Cleaver as "The Perfect Woman".

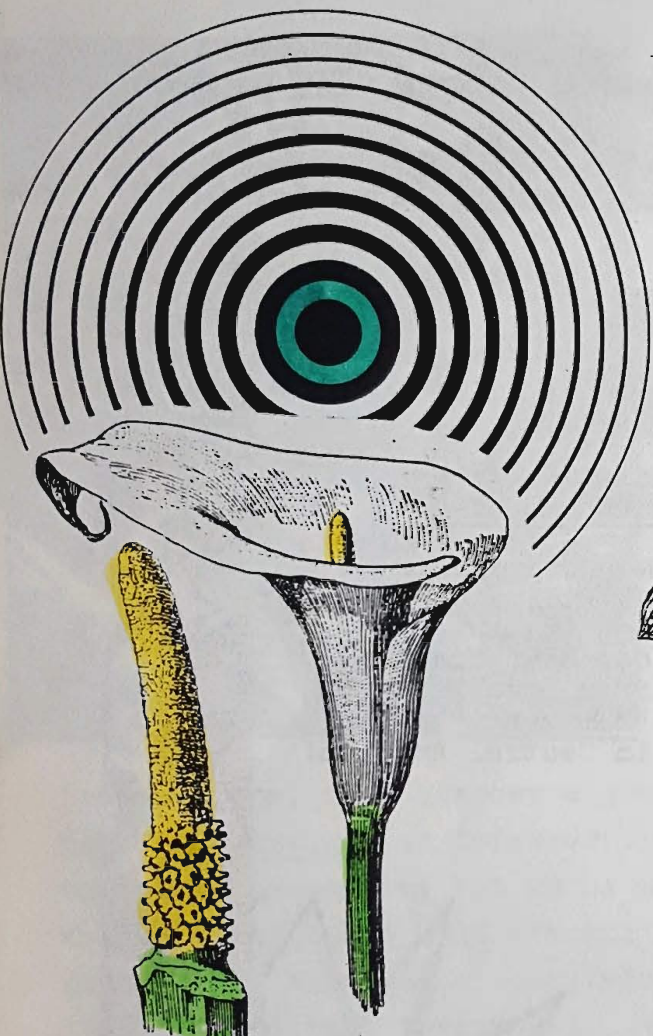
1. This fall buy a few pounds of white clover seed and a packet of dried nitrogen-fixing bacteria at a feed store. Mix the two with a few pounds of dry sand for easier distribution and spread the mixture evenly over your lawn. Clover likes to sprout in cool weather, so it will sprout on its own next spring or this fall if you water daily for 30 minutes for two weeks, weekly for an hour thereafter. The bacteria live in nodules on the clover's roots and actually draw nitrogen gas from the air and convert it into nitrogen fertilizer for a thicker lawn! Clover clippings are rich in nitrogen too so when you mow you enrich the soil. Clover resists freeze-browning, disease, insects and is a dark green. Before the advent of herbicides it was a traditional component of beautiful lawns; plus it annually produces thousands of white flowers for a short time to feed honey bees.
2. While at the feedstore buy about 3 50 lb. bags (for a standard-size lawn) of either: Cottonseed meal, soybean meal, meat and bonemeal... expect to pay about \$9 per bag. All three are high in protein, and thus slowly release nitrogen for leafy growth as bacteria digest them.
3. Unless you use the meat and bone meal, also buy a couple bags of powdered dolomitic limestone if you live East of the Mississippi to control acidity and supply calcium. (Bone Meal contains calcium).
4. Leave the bag OFF your mower every other mowing; fallen clippings decay and enrich the soil and DO NOT cause thatch on a properly fed lawn.
5. Mix dry yeast with water & spray the lawn annually to decay clippings.

BAMBO

MORE BLOOD, PART II

No Congress
No Ethics
No Voters
can stop him
from establishing
"Democracy"
in Central America!

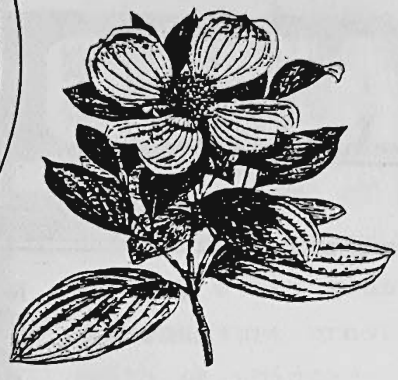




The great white spathe (and the spadix) of the garden calla.



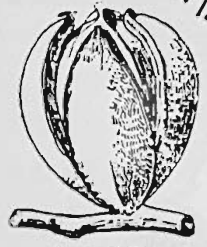
Clouded Sulphur (*Eurymus philodice*)



Dogwood (*Cornus florida*).



23



Fruit of *C. ovalis*, the false shagbark. (Natural size).



Hercules-beetle, about one third natural size.



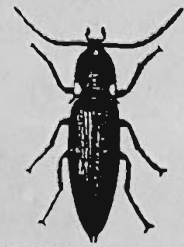
Camomile (*Anemis nobilis*)



Clachoma (*C. calycosa*).



Lilium superbum. (X 1/2)



Fire-beetle (*Pyrophorus noctuicus*).



Anise.

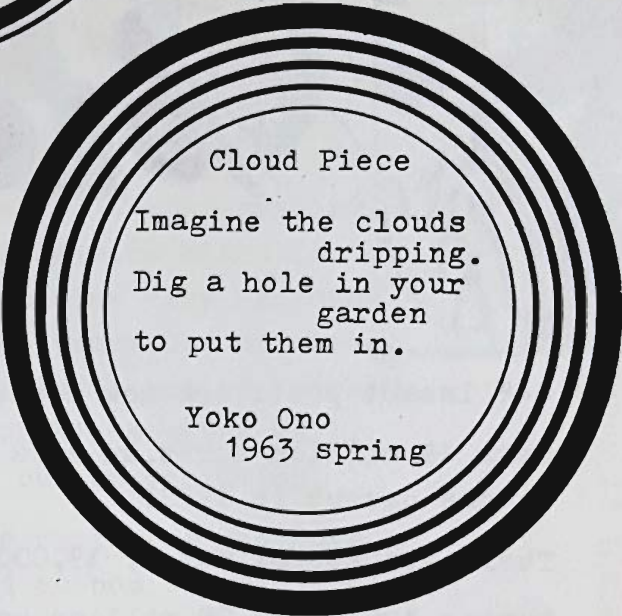


Bloodroot: (*Sanguinaria canadensis*).



Flying-frog (*Rhacophorus marmoratus*).

blood-root (blud'rüt), n. An old-world rosaceous plant, *Potentilla tormentilla*, with a reddish root; also, a North American papaveraceous plant, *Sanguinaria canadensis*, with red root and root-sap.




Cloud Piece

Imagine the clouds
dripping.
Dig a hole in your
garden
to put them in.

Yoko Ono
1963 spring



ETRY

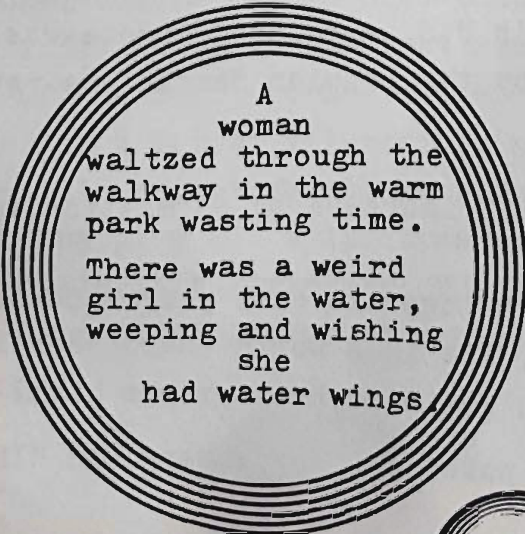



Gesture

If, one morning, as you work in the garden
the air raid sirens wail one last time,
continue combing the soil with your rake, your
hands grasping the warm wooden handle, the
hopeful green glint of unfolding leaves
diluting your fear and
be sure to be stooped over lovingly planting seeds
when the atomic fireball suddenly kills the sky
over your house.


Seedlings will survive where your shadow falls.

John Starnes March 1988

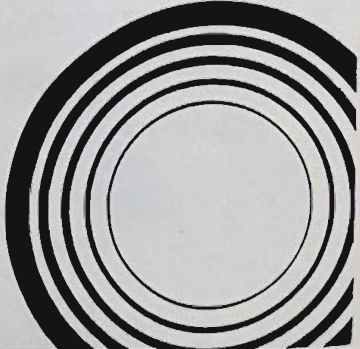



A
woman
waltzed through the
walkway in the warm
park wasting time.

There was a weird
girl in the water,
weeping and wishing
she
had water wings.



Glenn Anderson age 10





Bad NEWS

448 insect pests are now resistant to artificial chemical pesticides. Over 19 million acres, an area 4 times the size of Jamaica, will become desert in 1988.

There are approximately 19,000 hazardous waste sites in the U.S. During 1987 over 29 million acres of tropical forest were lost to development, clear cutting by the timber industry, and to slash-and-burn agriculture.

In the last 100 years the U.S. has lost 50% of its topsoil to wind and water erosion.

Parathion, a commonly used commercial agricultural pesticide, was originally developed by the Nazis as a nerve gas.

Wild birds are dying in great numbers worldwide as a result of eating pesticide-resistant insects leaving freshly-sprayed areas.

600 million people around the world are starving, barely staying alive on a diet of less than 1500 calories daily, plus water, sometimes.

In much of the Third World 80% of the land is controlled by 3% of the population. Nicaragua's U.S. appointed Somoza was a classic example until toppled by the popular Sandinista revolution.

India still uses DDT.

The earth's human population will increase by 83 million in 1988.

Approximately 18 million human beings die each year because THEY DID NOT GET ENOUGH TO EAT, this in a world where "developed" countries dump surplus milk and grain to keep prices high.

There are 4 REPORTED pesticide poisonings of humans PER MINUTE.

HEAD'S

The Office of President of the United States carries vast responsibilities. To make this load more bearable to the persons who seek out the position, some very handsome accomodations have been made over the years. One of these is a very generous lifetime pension. Plus a lot of "perks". For a President who has served her or his country well, this is the least we can do to show our appreciation.

But what of the less than notable employees who have held the job? Accidental wars, wrecked economies, political scandal and other results of O.J.T. hardly warrant an annual freebie greatly exceeding the annual wage of a more typical citizen. It is also worth noting that most American corporations require something closer to twenty than FOUR years of commendable employee performance to qualify for lifetime pensions.

Thus, at the end of each Presidential term, a national referendum should be held on the Optional Presidential Pension Provision I now propose, to determine whether or not the new ex-President gets the big bucks. I, Margaret Head, say NO nest egg for Presidential turkeys. For example, Mr. Ronald "Balance-the-Budget-by-'84" Raygun will soon be leaving behind both the White House AND a national debt load greater than that created by all previous administrations COMBINED! He has insured that future Presidents will inherit inflation, high interest rates, foreign capital-control of the U.S. economy, a fiat currency, huge trade deficits AND a lot of ill-performing military gee-whiz stuff.

Maybe it's me, but should we reward him for that? Would YOUR company give YOU a lifetime pension if you destroyed it's economic infrastructure? Think on that, honey, then write your congressperson to demand the O.P.P.P.

Nature, to be commanded, must be obeyed. Francis Bacon 1561-1626

Diligence is the mother of good fortune. Miguel De Cervantes. 1547-1616

XOXOXOXO
Margaret
Head



The actuality of thought is life. Aristotle



GARDEN DOCTOR GROWS, ORGANICALLY

The most interesting, humorous and informative publication to come over the transom at *Organica* in many months is the new newsletter, *The Garden Doctor*, by Denver-based organic gardening consultant/artist/writer John Starnes.

Each issue of this 20-pager, with a purposely home-grown look, is hand-colored by the ecologically minded artist, which adds a human touch to the equally colorful and personal editorial content.

Issue No. 1 is a REAL collector's item, since it had an initial subscribership of eight. But *Garden Doctor's* circulation figures soared to 20 for issue no. 2, being mailed now, Starnes revealed.

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

However, we will tweak your curiosity by saying the maiden issue included advice on boiling water as a cheap way to get rid of weeds in sidewalks and driveways, planting schedules, tips on winter lawn and landscape care, columns about edible

houseplants and "children and plants," poetry and cartoons. There are also "good news" and "bad news" pages about environmental and wildlife issues and even an editorial critical of the Reagan Administration's "Star Wars" plan.

Starnes admits that the newsletter is "liberal, some might say left-wing," but he doesn't apologize since GD's meant to reflect his personality as well as know-how.

Equally surprising, each *Garden Doctor* is also a gardening kit, since Starnes includes little envelopes of useable powders, seeds and what-not.

In the debut issue, the goodies included a packet of soybean meal ("excellent source of nitrogen for plant growth"), an envelope of rumex ("a wild relative of buckwheat and rhubarb; a hardy perennial") and catnip for felines and sore throats.

"It amuses me to think that someday *Garden Doctor* will be on the newsstands and people will rush it home to find out what's inside the latest issue," Starnes said.

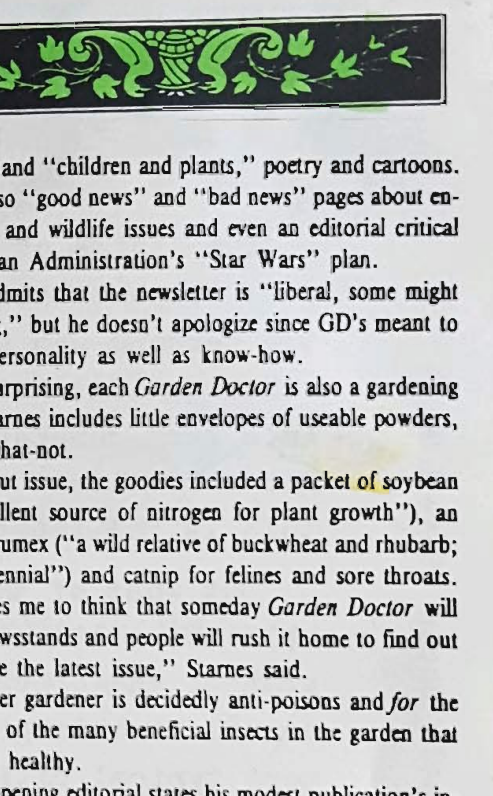
The Denver gardener is decidedly anti-poisons and for the preservation of the many beneficial insects in the garden that help keep it healthy.

Starnes' opening editorial states his modest publication's intentions, "...ethics in the marketplace are NOT idealistic pap, we are not helpless victims of 'them,' cynicism is NOT a realistic or healthy response to reality. And since better gardeners usually make for better people, this newsletter is my effort to make a living while effecting positive change in a spirit of slapstick and delight in our vast potential for joy and appreciation for our brief appearances in an amazing universe."

See, and you thought garden writing was dull.

The quarterly *Garden Doctor* is \$24 annually. For more information, write to John Starnes, c/o *The Garden Doctor*, 1684 Willow, Denver, CO 80220.

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FROM THE SPRING 1988
ISSUE OF "ORGANICA"



Don't bend over backwards trying to describe "The Garden Doctor" to your friends..buy them a year of it!For a measly \$24 you'll give them four hand-colored and signed quarterly issues.BUT WAIT! THERE'S MORE!! They ALSO receive 3 sample packets of neat seeds, organic pesticides and natural fertilizers.ZOWEE!So send \$24 and their name and address to:
THE GARDEN DOCTOR, 1684 Willow,
Denver, CO 80220

