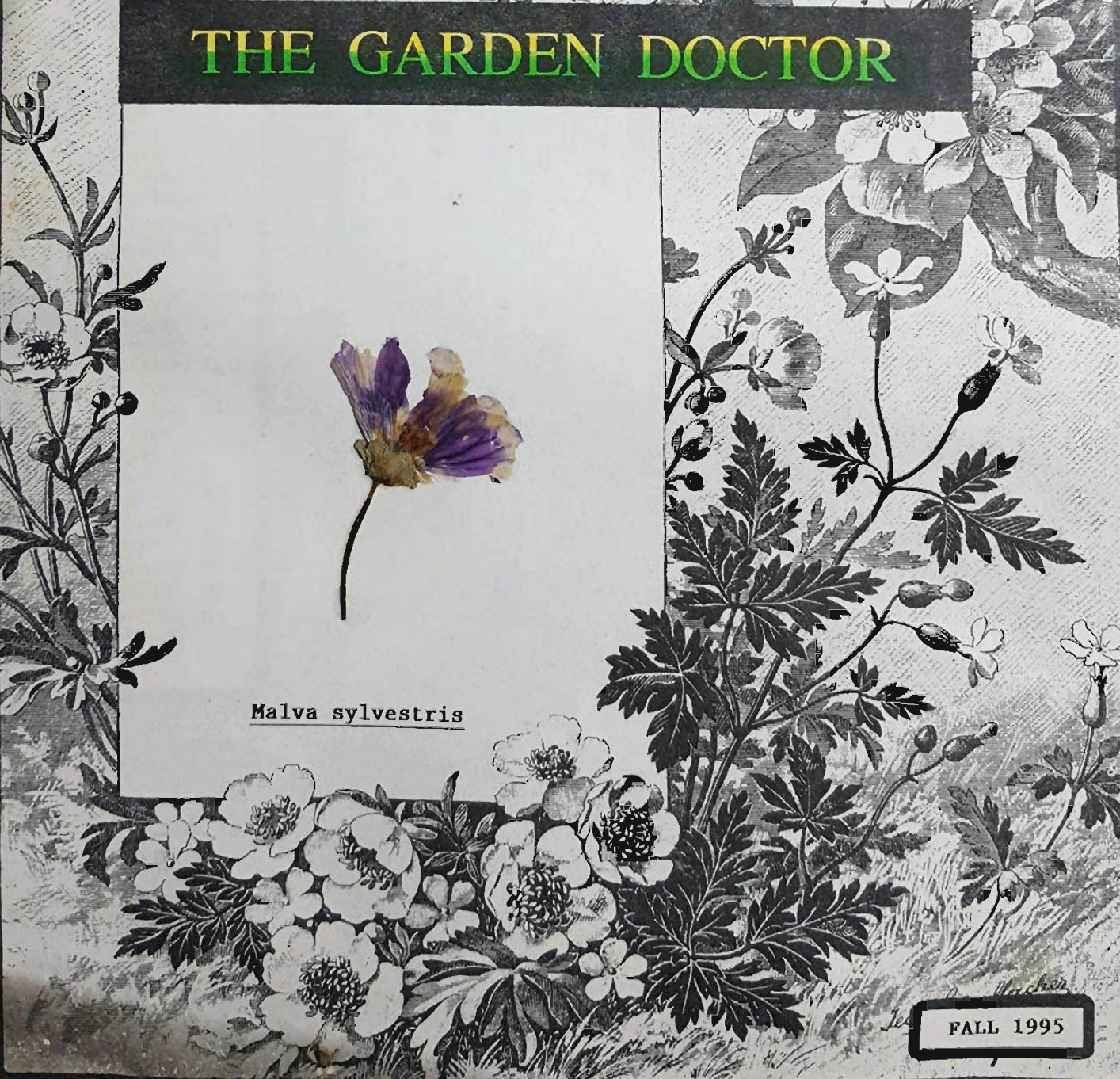




THE GARDEN DOCTOR



Malva sylvestris



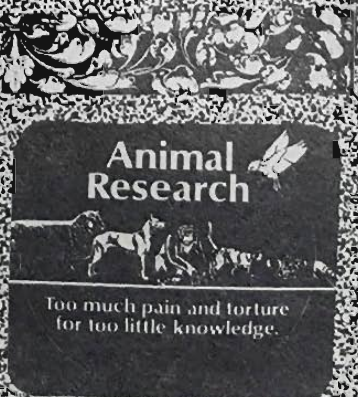
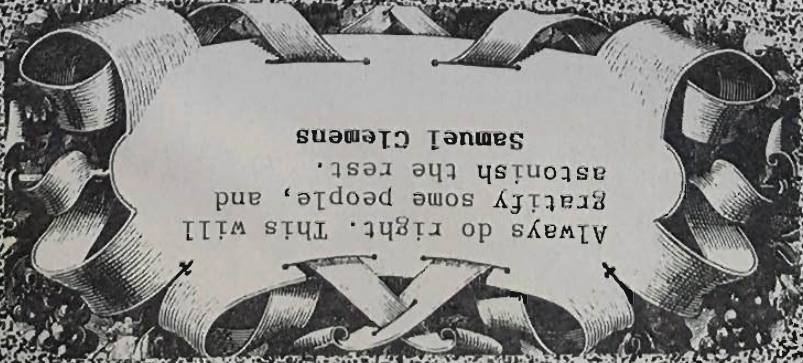
FALL 1995



WRENS (top), DIPPERS (center), BLACKBIRD

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**T**

his issue of **THE GARDEN DOCTOR** is a celebration of prosperity in all its forms, and of the choices we can make that in turn create those riches. Substituting healthy, expansive and creative beliefs about ourselves and the world for limiting, negative and obsolete beliefs (often acquired when we were very young) can allow us to create, accept and enjoy vibrant, life-enhancing relationships with some of the truly remarkable people in this beautiful world, people that affirm us and encourage us to grow further. New beliefs about our own worth can also allow us to create and accept higher levels of financial prosperity resulting from honorable and worthwhile pursuits. Believing we deserve long, fruitful and dynamic lives can let us enjoy the indispensable gift of good health by choosing healthy diets, pesticide-free yards and gardens, and vigorous daily physical activity. Emotional prosperity can come when we are equipped, and ready, to address, feel then heal the silent unseen wounds we acquired as children, for those persistent scars can lead us, as adults, to make choices that limit or even hurt us. Spiritual prosperity seems to come to people in many forms and at different times in their lives, blessing them with a sense of their place in this universe and thus creating a core of calmness, strength, and vision within them. So in that tug-of-war between the part of us which is brave, expansive and growth-oriented, and that part which is fearful and craving of "security", we can be reminded that life continually offers us chances for further inner prosperity; sometimes even adversity and sorrow are gifts that strengthen and enrich and reveal our truest selves.

And of course prosperity can manifest as vibrant gardens around our home, teeming with colorful living things and filling our bellies, and our hearts, and our homes with the uplift of fragrance and seasonal change, a living kaleidoscope thriving under our stewardship. And we can choose to create the potential for prosperity for future generations, (human, plant and animal) by recycling more, gardening organically, eating lower on the food chain, consuming less, limiting our birthrate, and electing people that see protecting the Earth as a true family value...our kids deserve to inherit an intact world.

This issue of **THE GARDEN DOCTOR** is a celebration of all that and more, for prosperity seems to be limited only by our vision of it as we tend to our gardens, our loved ones, our own hearts, and each brief new day. I hope you enjoy reading this issue (and growing its seeds!) as much as I did creating it!

*John*



Rain-soaked, I was amazed by variegated elephant ear plants, colorful heliconias, arboreal orchids and more in a rainforest botanic garden near the Caribbean coast of Costa Rica in July 1994. If you can, GO to that remarkable country!

"In the time of your life, live---- so that in that wondrous time you shall not add to the misery and sorrow of the world, but shall smile to the infinite variety and mystery of it all." William Saroyan 1908-1991



## Good News

After rising by 1 percent per year since the 1950's, atmospheric levels of carbon monoxide have DROPPED by 18% from 1991 through 1994. Since this may be the result of Mt. Pinatubo's eruption generating more of the air's main cleansing agent "hydroxyl radical" via it's thinning of the ozone layer, levels of carbon monoxide may begin rising again due to continued burning of fossil fuels and rainforests.

**Paul C. Novelli, U.C. at Boulder**

Ingestion of large amounts of garlic by lab rats resulted in a 40% to 80% drop in cancer-causing "adducts"—chemicals resulting from the ingestion of nitrosamines.

**John A. Milner, Penn State University at University Park**

Eating tomatoes can block the formation of toxic nitrosamines in humans due to the Vitamin C content plus the newly-discovered nitrosamine blockers "p-coumaric acid" and "chlorogenic acid". Green coffee beans also contain large amounts of these blockers.

**Michael A. Helser, Joseph H. Hotchkiss, Cornell University**

Long harvested for its roots that yield a fragrant oil, "'Vetiver Grass" is now being employed as a very effective means of controlling erosion in tropical countries. Vetiver, which forms a tall dense, deeply-rooted hedge, thrives in hot humid areas or desert regions, even in poor soils, living for decades. Only the domesticated vetiver from southern India, which is sterile and spreads only by vegetative propagation, should be used, not the wild, seed-bearing strain from North India, so as to keep the plant from becoming a pest as has kudzu, once highly-touted for erosion control.

**National Research Council**

Orange peels yield a substance called "limonene", which reduces and prevents human breast cancer tumors in mice. A compound in fragrant lavender oil called "perillyl alcohol" eliminated 60% of tumors, and shrank another 20% in lab mice. Tumor recurrence was rare.

**Michael N. Gould, University of Wisconsin-Madison**

Quercetin, found in onions, garlic and red wine, appears to be one of the most powerful anticancer agents ever found.

**Terrance J. Leighton, Univ. of California, Berkeley**

"Regular" gypsum drywall waste from construction sites, crushed and added to soil, increased soil fertility and corn yields.

**Mark E. Burger N.Y.S.U. College in Syracuse**

Once established in healthy, fertile, initially mulched soil, the following are tough and reliable xeriscopic roses.

### COLD WINTER AREAS:

1. Austrian Copper
2. Alba suaveolens
3. Alba maxima
4. Banshee
5. Eglanteria
6. Desiree Parmentier
7. Sir Thomas Lipton
8. Rugosa rubra
9. Victorian Memory
10. Lawrence Johnston
11. Rugosa alba
12. Hansa
13. R. glauca
14. R. woodsii
15. "Mr. Nash"
16. Persian Yellow
17. Therese Bugnet
18. Fruhlingsgold
19. R. paulii
20. R. hugonis
21. R. setigera
22. R. spinosissima
23. Blush Damask
24. Harison's Yellow

### SUBTROPICAL AREAS:

1. Cherokee Rose
2. R. banksia
3. "Cracker Rose" (unknown China)
4. Louis Phillipe
5. Mutabilis
6. Mermaid
7. R. fortuniana
8. Old Blush
9. Blush Noisette
10. "Maggie"
11. Safrano
12. Champney's Pink Cluster

## SPROUTING SEEDS

Many people find growing plants from seed to be rife with failure, seeing an empty garden row where they planted a whole packet of seed. To avoid this frustration, and to be able to germinate the often sparse contents of the packets of exotic seeds from specialty seed houses like Thompson & Morgan, try the following techniques used by many successful seed sprouting gardeners.

### 1. STORE YOUR SEEDS IN

**A COOL PLACE**, like your refrigerator produce drawer. This improves germination by simulating winter dormancy, plus keeps the tiny embryo in each seed alive much longer than if stored in a kitchen drawer.

### 2. DON'T PLANT THE SEEDS

**TOO DEEPLY**; Covering the seed with a soil layer **TWICE** the diameter of the seed is fine. Seeds that require light to germinate should be just pressed into damp soil. This need for light should be mentioned on the packet or in the seed catalog description.

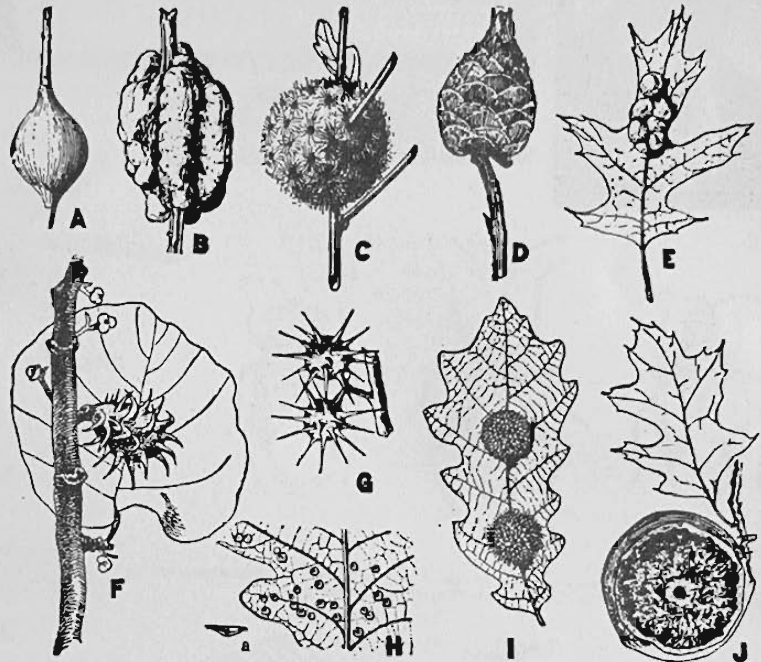
### 3. KEEP THE SEEDBED

**DAMP**, not soggy, which could rot the emerging seedlings, nor dry, which can shrivel the emerging root tip, killing the seedling.

### 4. TRY SOAKING SEEDS

**OVERNIGHT** in warm water before planting, especially **BIG** seeds like corn, beans, peas, squash, fava beans, morning glories, gourds, etc.

Those odd swellings you may have noticed on the thin twigs, or sometimes the leaves of trees and shrubs, were likely "insect galls", the result of an insect laying her eggs there. Irritated, the plant's tissues quickly grow new cells to surround and isolate the irritant, conveniently creating a nest for the eggs. Galls cause little harm.



—A group of insect galls. A, goldenrod ball gall, caused by a fly, *Eurosta solidaginis* Fitch; B, blackberry knot gall, caused by a gall wasp, *Diastrophus nebulosus* O. S.; C, wool sower gall on oak twig, caused by a gall wasp, *Andricus seminator* Harr.; D, pine cone gall, a common growth on willow, caused by a gall fly, *Rhabdophaga strobiloides* Walsh; E, dryophanta galls on oak leaf, caused by a gall wasp, *Dryophanta tanata* Gill; F, spiny witch-hazel gall, caused by an aphid, *Hamamelistes spinosus* Shim.; G, spiny rose gall, caused by a gall wasp, *Rhodites bicolor* Harr.; H, oak spangles caused by a gall fly, *Cecidomyia poculum* O. S., one gall shown in section at a; I, spiny oak gall, caused by a gall wasp, *Philonix prinoides* Beutm.; J, large oak apple, caused by a gall wasp, *Amphibolips confusus* Hart. (From Felt, Key to American Insect Galls, N. Y. State Mus. Bull. 200.)

### METHODS OF OBTAINING EVEN DISTRIBUTION OF SEEDS—



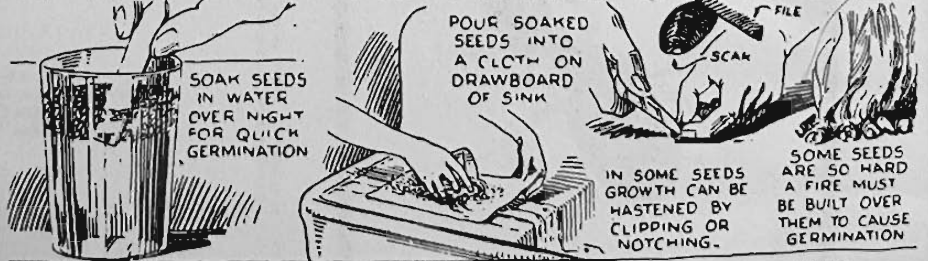
FOR REGULAR DISTRIBUTION MIX ONE OUNCE OF FINE SEEDS WITH ONE-HALF PINT OF FINE DRY SAND

TAPPING SEED FROM A FOLDED PAPER

A QUILL NOTCHED INTO THE SIDE OF A CORK MAKES AN EXCELLENT SEED SOWER

THIS TYPE OF SOWER IS FOR SALE BY SEEDSMEN

### METHODS OF PREPARING SOME SEEDS FOR QUICK GERMINATION



SOAK SEEDS IN WATER OVER NIGHT FOR QUICK GERMINATION

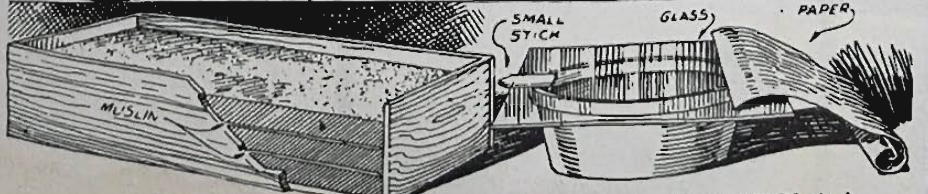
POUR SOAKED SEEDS INTO A CLOTH ON DRAWBOARD OF SINK

FILE

SCAK

IN SOME SEEDS GROWTH CAN BE HASTENED BY CLIPPING OR NOTCHING.

SOME SEEDS ARE SO HARD A FIRE MUST BE BUILT OVER THEM TO CAUSE GERMINATION



SEEDS WHICH LOSE THEIR VITALITY QUICKLY WHEN DRY—AND THOSE SLOW TO GERMINATE ARE "STRATIFIED" IN MOIST SAND—

START VERY SMALL SEEDS IN A BULB PAN COVERED WITH GLASS

"We can do only what we think we can do. We can be only what we think we can be. We can have only what we think we can have. What we do, what we are, what we have all depend on what we think."

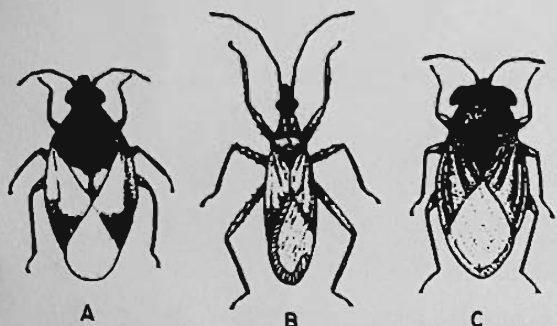
Robert Collier



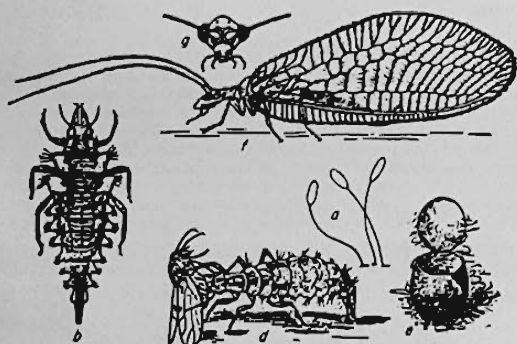
## PREDACEOUS INSECTS

by Harvey Larvae

Organic gardeners and farmers rely on these and other bugs to eat crop-damaging bugs. Give them a pesticide-free, botanically diverse garden to multiply in.



Important predaceous bugs: (A) the minute pirate bug, *Orius insidiosus*; (C) the big-eyed bug *Geocoris* sp.; (B) the common damsel bug, *Nabis americoferus*.



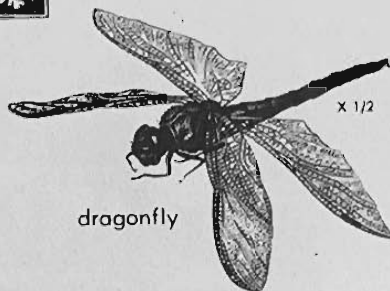
An aphid-lion or lace-winged fly. (a) Several eggs showing the long pedicels that elevate them; (b) larva, dorsal view; (c) larva feeding on a plant louse; (d) empty cocoon showing lid through which the adult has escaped; (e) adult, side view; (f) head of an adult, front view.



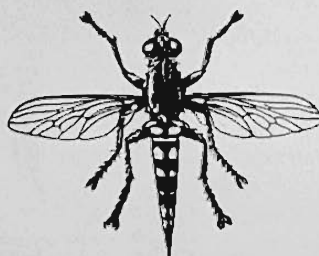
European ground beetle, *Calosoma sycophanta*. Adult, at top, feeding on pupa of gypsy moth, and larva, at bottom, feeding on caterpillar of gypsy moth. (From Mass. State Forester.)



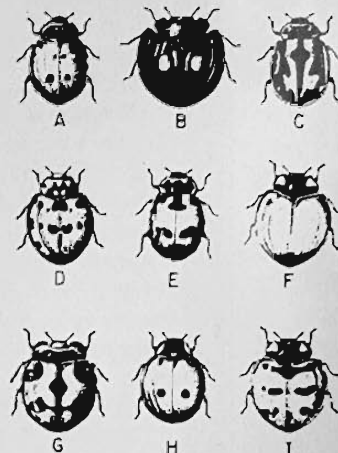
—Syrphid fly, *Allomyia obliqua*, and its larva.



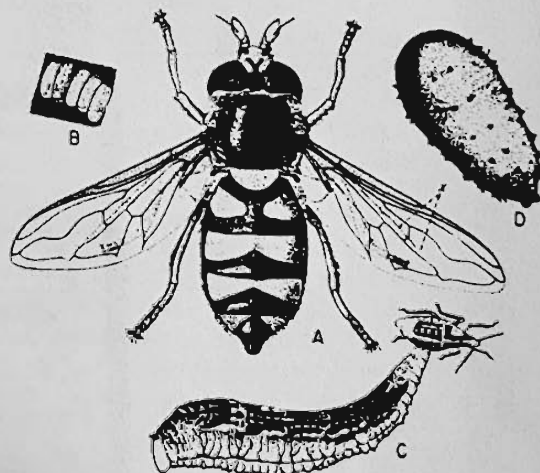
dragonfly



A robber fly, *Erax maculatus*, female. About two times natural size.



Some common lady beetles. (A) Convergent lady beetle, *Hippodamia convergens*; (B) twice-stabbed lady beetle, *Chilocorus stigma*; (C) American lady beetle, *Hippodamia americana*; (D) ash-gray lady beetle, *Olla abdominalis*; (E) Washington's lady beetle, *Hippodamia washingtoni*; (F) California lady beetle, *Coccinella californica*; (G) vedalia or Australian lady beetle, *Rodolia cardinalis*; (H) two-spotted lady beetle, *Adalia bipunctata*; (I) eastern lady beetle, *Coccinella transversoguttata*. (From C. Popp, Bull. S. Calif. Acad. Sci., 56.)



A syrphid fly. (A) Adult of *Didea fasciata*; x, the false vein in the wing that characterizes flies of this family (after Metcalf, from Ohio Naturalist); (B) eggs of *Melanostoma mellinum* (after Metcalf, Maine Agr. Exp. Sta. Bull. 253); (C) larva feeding on an aphid (redrawn after Jones, Colo. Agr. Exp. Sta.); (D) puparium of *Didea fasciata* (after Metcalf, from Ohio Naturalist).



A tachinid fly, *Winthemia quadripustulata*, a fly that lays eggs on armyworms and whose larvae destroy the worms. (From U.S.D.A., Farmers' Bull. 752.)

## Linen

Wait for a sunny day.  
With a large sharp knife cut out a piece of the sky  
and use it as a tablecloth.  
Watch clouds and Venus  
pass beneath your cereal bowl each morning.  
Watch the tablecloth with friends one night  
with the lights out  
and together see falling stars,  
the glint of a full moon in each other's eyes.

If a beloved old pet dies,  
wrap the body in the sky tablecloth and  
bury them together in your garden.

Plant sunflowers here.

## Gesture

If, one morning, as you work in the garden,  
the air raid sirens suddenly 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 planting seeds  
when the fireball suddenly kills the sky  
above you.

Seedlings will survive where your shadow falls.

## Interior III

Completely mirrorize a tiny windowless room...  
floor, ceiling, walls.  
Release 1,000 fireflies then  
turn out the light.

Sit with a friend and watch.

## Hear All This Very Clearly

Glass chimes.  
A stampede of wild horses.  
Snow falling.  
Ice cubes cracking from a freezer tray.  
Children singing in a cave.  
Machine guns.  
A harp.  
A window breaking.  
Mr. Rogers, singing.  
A summer night's rain.  
A baby laughing.  
Thunder.  
Lucy begging Ricky Ricardo for a new dress.  
Crickets.  
A couple arguing next door.  
Church bells.  
Niagra Falls.  
The screech of tires, the crash.  
Wind through pine trees.  
Children laughing in a cave.  
Machine guns.  
Snow falling.  
Glass chimes.

## Lesson

Wait for summer.  
Find a lake deep in the Rockies and  
walk across the water.  
Use each footprint as a lens  
to view fish and stones beneath you,  
deep in the clear cool.

Then close your eyes,  
breathe deep and

become the sky.

## Hobby

Use a garden shovel  
to dig a deep hole  
in the middle of a lake.  
Hide in the hole  
and quickly stand up and wave  
when water-skiers pass by.

## Anniversary

Line your bathroom with green cellophane.  
Fill the tub with warm sudsy water and  
scent it with cinnamon extract.  
Set a TV and VCR on the toilet seat cover  
then turn out the light.  
Have your spouse join you in the tub and  
together drink hot cocoa, smoke marijuana,  
and watch "Green Acres"  
until your marriage is completely healed.

## Water Gardener

Walk through a garden.  
If there are flowers, smell but  
do not pick them.

If there are vegetables, touch but  
do not eat them.

If the soil is dry,  
lie down between two rows and

become water.

## Creator

Go to your favorite hardware store  
and buy an icepick.  
Use it to perforate the night sky.

This is how stars are made.

## Fashion

Use a brand new pair of pliers  
to pluck dewdrops from your lawn at dawn.  
Drop the soft clear beads  
one by one  
into a glass bowl.

Use the dewdrops as sequins  
on a white cashmere sweater.

# COLD HARDY PERENNIALS

## WHAT TO PLANT FOR GARDEN COLOR

The best in hardy perennials arranged by size and season

SEASON	WHITE AND SHADES	YELLOW—ORANGE	PINK	RED	BLUE—PURPLE
<p><b>SPRING</b></p> <p>Bulbs in great variety are also valuable spring flowers.</p> <p>Most things in this group are best if planted in the fall.</p>	<p><b>DWARF</b></p> <p>Arabis Dianthus Hepatica Iberis Iris pumila Papaver nudicaule Phlox subulata Sedum Viola</p> <p><b>MEDIUM</b></p> <p>Aquilegia Campanula</p> <p><b>TALL</b></p> <p>Gypsophila Peony (tree)</p>	<p><b>DWARF</b></p> <p>Alyssum Caltha Erythronium Iris pumila Papaver nudicaule Primula Sedum</p> <p><b>MEDIUM</b></p> <p>Aquilegia Doronicum Hemerocallis Trollius</p> <p><b>TALL</b></p> <p>Hemerocallis Peony (tree)</p>	<p><b>DWARF</b></p> <p>Aubrietia Gypsophila Lychnis Papaver nudicaule Primula Phlox subulata</p> <p><b>MEDIUM</b></p> <p>Papaver orientale Sedum Viola</p> <p><b>MEDIUM</b></p> <p>Aquilegia Campanula Dianthus Megasea</p> <p><b>TALL</b></p> <p>Peony (tree)</p>	<p><b>DWARF</b></p> <p>Lychnis Papaver nudicaule Phlox subulata</p> <p><b>MEDIUM</b></p> <p>Papaver orientale</p> <p><b>TALL</b></p> <p>Peony (tree)</p>	<p><b>DWARF</b></p> <p>Anemone pulsatilla Aster alpinus Aubrietia Gentiana Hepatica Iris pumila Nepeta Phlox divaricata Trillium Veronica Viola</p> <p><b>MEDIUM</b></p> <p>Anchusa Aquilegia Campanula</p>
<p><b>EARLY SUMMER</b></p> <p>In most gardens this is the height of the color display.</p> <p>Many in this season group are also found in the next two because of their continued blooming.</p> <p>Bulbs such as Lilies, Montbretias, Tigridias, Gladiolus and others add to the display during the summer months.</p> <p>Early summer is the time to plan and plant for fall color.</p>	<p><b>DWARF</b></p> <p>Achillea Arenaria Cerastium Dianthus Gypsophila Helianthemum Heuchera Saxifraga Sedum Silene Thymus Viola</p> <p><b>MEDIUM</b></p> <p>Achillea Aquilegia Asilbe Campanula Gypsophila Hesperis Iris Linum Lychnis Papaver orientale Phlox Platycodon Pyrethrum Scabiosa Thalictrum Veronica</p> <p><b>TALL</b></p> <p>Aconitum Althaea rosea Delphinium Dictamnus Digitalis Iris Lupinus Monarda Peony Yucca</p>	<p><b>DWARF</b></p> <p>Alyssum Helianthemum Potentilla Primula Sedum Thalictrum Viola</p> <p><b>MEDIUM</b></p> <p>Aquilegia Coreopsis Doronicum Gaillardia Geum Helenium Hemerocallis Iris Oenothera Potentilla Thalictrum Trollius</p> <p><b>TALL</b></p> <p>Althaea rosea Digitalis Iris Lupinus Thalictrum Thermopsis</p>	<p><b>DWARF</b></p> <p>Allium Dianthus Dodecatheon Erica Helianthemum Heuchera Primula Thymus Potentilla Sedum Silene Thymus Viola</p> <p><b>MEDIUM</b></p> <p>Achillea Agrostemma Aquilegia Armeria Asilbe Dianthus Hesperis Incarvillea Iris Lychnis Papaver orientale Pyrethrum</p> <p><b>TALL</b></p> <p>Althaea rosea Digitalis Iris Lupinus Monarda Peony Valeriana</p>	<p><b>DWARF</b></p> <p>Armeria Erica Helianthemum Heuchera Primula Thymus</p> <p><b>MEDIUM</b></p> <p>Agrostemma Asilbe Dianthus Gaillardia Geum Lychnis Papaver orientale Phlox ovata Potentilla Pyrethrum</p> <p><b>TALL</b></p> <p>Althaea rosea Dictamnus Iris Monarda Peony</p>	<p><b>DWARF</b></p> <p>Campanula Myosotis Nepeta Veronica Viola</p> <p><b>MEDIUM</b></p> <p>Agapanthus Anchusa Aquilegia Campanula Delphinium Geranium Iris Linum Mertensia Phlox Platycodon Scabiosa Thalictrum</p> <p><b>TALL</b></p> <p>Aconitum Anchusa Campanula Delphinium Iris Liatris Lupinus</p>
<p><b>LATE SUMMER</b></p> <p>This period is likely to be lacking in color unless special efforts are made both in planting and care.</p> <p>Annuals in masses should freely supplement the perennials.</p> <p>Shearing back and feeding help many varieties.</p>	<p><b>DWARF</b></p> <p>Arenaria Dianthus Sedum Silene Viola</p> <p><b>MEDIUM</b></p> <p>Campanula Erigeron Gypsophila Linum Phlox Physostegia Scabiosa Sidalcea Stokesia</p> <p><b>TALL</b></p> <p>Aster Boltonia Cimicifuga Delphinium Eupatorium Hibiscus Phlox Romneya coulteri</p>	<p><b>DWARF</b></p> <p>Achillea Alyssum Dianthus Hypericum Sedum Sempervivum Viola</p> <p><b>MEDIUM</b></p> <p>Centaurea Coreopsis Gaillardia Geum Oenothera Potentilla</p> <p><b>TALL</b></p> <p>Cassia Helenium Helianthus Heliopsis Rudbeckia Senecio Thalictrum Tritoma Verbascum</p>	<p><b>DWARF</b></p> <p>Dianthus Sedum Silene Tunica Viola</p> <p><b>MEDIUM</b></p> <p>Achillea Armeria Centaurea Erigeron Lythrum Phlox Physostegia Sedum Sidalcea</p> <p><b>TALL</b></p> <p>Aster Boltonia Hibiscus Phlox</p>	<p><b>DWARF</b></p> <p>Sempervivum</p> <p><b>MEDIUM</b></p> <p>Gaillardia Geum Penstemon Phlox Potentilla</p> <p><b>TALL</b></p> <p>Helenium Hibiscus Lobelia Phlox Senecio Tritoma</p>	<p><b>DWARF</b></p> <p>Gentiana Myosotis Plumbago Veronica Viola</p> <p><b>MEDIUM</b></p> <p>Campanula Centaurea Erigeron Funkia Lavandula Linum Phlox Scabiosa Statice Stokesia Veronica</p> <p><b>TALL</b></p> <p>Aconitum Anchusa Aster Campanula Delphinium Liatris Lobelia Senecio Thalictrum</p>
<p><b>FALL</b></p> <p>The right varieties supply color even after early frosts.</p>	<p><b>DWARF</b></p> <p>Viola</p> <p><b>MEDIUM</b></p> <p>Anemone Stokesia</p> <p><b>TALL</b></p> <p>Aster Chrysanthemum Delphinium Pyrethrum uliginosum</p>	<p><b>DWARF</b></p> <p>Sempervivum Viola</p> <p><b>MEDIUM</b></p> <p>Coreopsis Gaillardia</p> <p><b>TALL</b></p> <p>Chrysanthemum Helenium Helianthus Senecio</p>	<p><b>DWARF</b></p> <p>Aster</p> <p><b>MEDIUM</b></p> <p>Achillea Anemone</p> <p><b>TALL</b></p> <p>Aster Chrysanthemum</p>	<p><b>DWARF</b></p> <p>Sempervivum</p> <p><b>MEDIUM</b></p> <p>Gaillardia</p> <p><b>TALL</b></p> <p>Chrysanthemum Helenium</p>	<p><b>DWARF</b></p> <p>Viola</p> <p><b>MEDIUM</b></p> <p>Delphinium Stokesia</p> <p><b>TALL</b></p> <p>Aconitum Aster Delphinium Echinacea purpurea</p>

NOTE—These classifications as to color and height indicate in a general way the variations. Check all varieties carefully in one or more comprehensive catalogs where many additional kinds will be found. Color indications are approximate as so many varieties come in between the above groups.

By their very nature cold hardy perennials REQUIRE a period of deep winter dormancy in cold or frozen soil; hence subtropical gardeners should ignore this list except for: Hemerocallis, Agapanthus, Gaillardia, Sempervivum, Chrysanthemums, and Stokesia. The rest would be VERY difficult for them.

These perennials may be planted and/or divided in early spring or late fall. Divide robust clumping varieties every 3 years.



As a bi-climate rosarian, I have planted dozens of varieties of China, Tea and Noisette subtropical roses in my Tampa customers' gardens. Here in Denver I have planted in my home landscape the following eclectic collection of roses (made possible by the soil and climate here) to use as propagating stock for my business, as breeders, for my pleasure, and to act as a safe haven for certain rare varieties. Those followed by an asterisk are Teas, Chinas and Noisettes mentioned in old Denver articles and elsewhere as being unusually cold hardy for their class, and so I planted them this year to test for cold-hardiness. I hope you find this list both interesting and useful in choosing your own roses. Oh yes, all but 5 of these are growing ON THEIR OWN ROOTS. John



**HYBRID MUSKS:**

1. Francis E. Lester 1946
2. Cornelia 1925
3. Nymphenburg 1954
4. Penelope 1924
5. Buff Beauty 1939
6. Felicia 1928
7. Ballerina 1937

**ALBAS:**

1. Alba maxima 1867
2. Alba suaveolens 1750

**RUGOSAS:**

1. Hansa 1905
2. Vanguard 1932
3. Conrad F. Meyer 1899
4. Dr. Eckner 1930
5. R. rugosa alba
6. Therese Bugnet 1950
7. Sarah Van Fleet 1926
8. Rose a Parfum de l'Hay 1901
9. Sir Thomas Lipton 1900

**ENGLISH ROSES:**

1. Fisherman's Friend 1987
2. Golden Celebration 1992
3. Ellen 1985
4. Chaucer 1981
5. William Shakespeare 1987
6. The Pilgrim 1991
7. Charles Austin 1981
8. Yellow Charles Austin 1981
9. Abraham Darby 1985
10. Proud Titania 1982
11. Gertrude Jekyll 1986
12. Graham Thomas 1983
13. St. Cecelia 1987
14. Othello 1986
15. Constance Spry 1961

**EGLANTERIAS:**

1. Lord Penzance 1894
2. Goldbusch 1954

**GALLICAS:**

1. Desiree Parmentier 1848

**DAMASKS:**

1. Mme. Hardy 1832

**CLIMBERS:**

1. Dr. Huey 1914
2. Lawrence Johnston 1923
3. Leverkusen 1954
4. Albertine 1921
5. Cl. Rhode Island Red 1957
6. Show Garden 1954
7. Golden Showers 1956

8. Rambling Rector 1912

**HYBRID PERPETUALS:**

1. General Jacqueminot 1853
2. Baronne Prevost 1842
3. Charles Lefebvre 1861
4. Alfred Colomb 1865
5. General Washington 1861
6. Sydonie 1846
7. John Hopper 1862
8. Paul Neyron 1869
9. Marchioness of Londonderry 1893

**BOURBONS:**

1. Queen of the Bourbons 1834
2. Souvenir de la Malmaison\* 1843
3. Commandant Baurepaire 1874
4. Variegata di Bologna 1909
5. La Reine Victoria 1872
6. Mme. Isaac Pereire 1881

**HYBRID TEAS:**

1. Gruss an Coberg 1927
2. Arizona 1975
3. Diamond Jubilee 1947
4. Amelia Earhart 1932
5. Night 1930
6. Margaret Anne Baxter 1927
7. Halloween 1962
8. Ibiza 1938
9. Pink Peace 1959
10. Dame Edith Helen 1926
11. Radiance 1908
12. Sutter's Gold 1950
13. La France 1867
14. Will Rogers 1936
15. Good News 1940
16. Ethel Brownell
17. Hadley 1914

**CHINAS:**

1. Old Blush\* 1752
2. Eugene de Beauharnais 1838 (China/Bourbon?)
3. "Cracker Rose" \*

**TEAS:**

1. Mlle. Franziska Kruger\* 1880
2. Lady Hillingdon\* 1910
3. White Maman Cochet\* 1896
4. Duchesse de Brabant\* 1857
5. Gloire de Dijon\* 1853

**NOISSETTES:**

1. Champney's Pink\* 1802
2. Blush Noisette\* 1817

**SHRUB ROSES:**

1. Complicata
2. Pleine de Grace 1985
3. Applejack 1973
4. Alchemist 1954
5. Trier (H. mult) 1904
6. Jacqueline du Pre 1988
7. Fruhlingsgold 1937
8. Edith Schurr 1976
9. Golden Wings 1956
10. Baltimore Belle 1843
11. "Darlowe's Enigma"

**PORTLAND:**

1. Comte de Chambord 1860

**POLYANTHAS:**

1. Mlle. Cecile Brunner 1881
2. Perle d'Or 1884

**FLORIBUNDAS:**

1. Margaret Merrill 1977
2. Chinatown 1963
3. Westerland 1969

**SPECIES:**

1. Rosa wichuraiana var. thornless 1965
2. R. multiflora
3. R. woodsii
4. R. foetida persiana 1837
5. R. foetida bicolor 1590

**"MYSTERY ROSES":**

1. Pink Hybrid China(?)
2. Wabash St. Hybrid China
3. Fairmount red (Study name) Baron de Bonstetton(?)
4. Dark pink HT (Rome Glory?)
5. Pale Pink Hybrid Perpetual (Sachsengruss?)
6. Dark Red HT, Vintage Gardens
7. Pink Hybrid Bourbon
8. "Victorian Memory" (Boursault Hybrid?)
9. Mr. Nash (Easley's Golden Rambler?)

**HYBRID BOURBONS:**

1. Great Western 1840

"If you are not making the progress you would like to make and are capable of making, it is simply because your goals are not clearly defined." Paul J. Meyer

# Radical Plants

## ARRACACHA

\**Arracacia xanthorrhiza* Bancroft. Family: Umbelliferae. Also known as Peruvian carrot, arracha, Peruvian parsnip, and *Arracacia esculenta* DC.

Native to the Andean highlands from Venezuela to Bolivia, arracacha\* is an herbaceous perennial that produces large, thick, edible, carrot-shaped, starchy roots with a color suggesting parsnip. Arracacha is cultivated today in most Latin American countries as far north as Costa Rica, usually in small gardens for local use. In the larger cities of Colombia, however, arracacha roots are sold in considerable quantities. In many areas arracacha replaces the potato; it costs only half as much to plant and harvest.

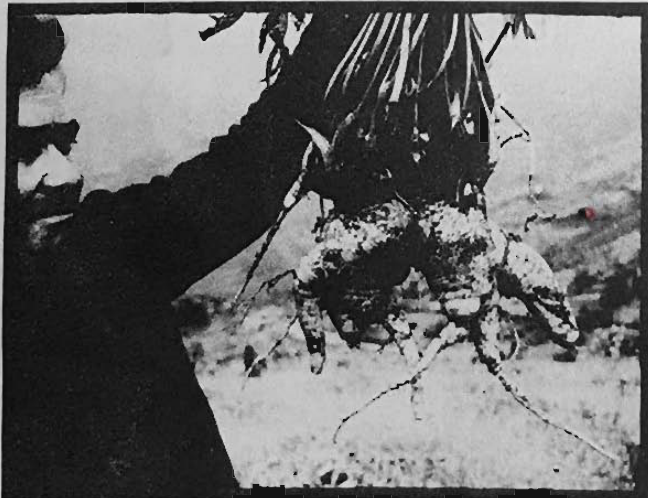
If introduced into other high-altitude areas of the tropics, arracacha is likely to be a valuable root crop, particularly if improved cultivars and cultural techniques are developed. The tubers are reported to have a starch content ranging from about 10 to 25 percent and to be rich in calcium and phosphorus. The starch is similar in many respects to that of cassava; it is easily digested and can be used in infant and invalid foods. It also makes a suitable laundry starch.

Secondary tubers (offshoots of the main tuber) are an important carbohydrate foodstuff and are boiled or fried as a table vegetable or used as an ingredient in stews. They have a delicate flavor, a crisp texture, and, depending on the cultivar, white, creamy-yellow, or purple flesh. In many areas yellow tubers are preferred.

All other parts of the plant are also used: offsets for the next planting, the coarse main rootstocks and mature leaves for livestock feeding, young stems for salads or a table vegetable.

Arracacha thrives in any good soil and is cultivated like, and often interplanted with, potatoes. The secondary tubers usually mature 10-14 months after planting; sometimes an early harvest of immature roots is taken after about 4-8 months. The entire plants are pulled up with the roots attached.

Seeds are seldom produced; propagation is entirely vegetative. Planting can be done at any time, but is usually done at the beginning of the rainy season.



Except in the lowlands, arracacha yields at all elevations in the Andes. It requires a moderate, evenly distributed rainfall of at least 60 cm (but preferably 100 cm); if the natural rainfall is insufficient, supplementary irrigation is required. For optimum results an equable temperature of 15-20°C throughout the year is needed. There are some varieties—those normally grown at lower elevations—that are frost sensitive, but the varieties adapted to the higher altitudes, where they do get occasional and light frosts, appear not to be seriously harmed by them.

In some regions arracacha is susceptible to nematode attack, but this can be controlled successfully with a copper-based pesticide.

Harvesting cannot be delayed because roots left in the ground become fibrous and tough and develop a strong, unpleasant flavor. Because of a short shelf life, it can be a relatively high-priced product in the marketplace.

Little direct testing of the environmental tolerances of arracacha has been conducted; study of the latitude, altitude, temperature, soil type, and moisture requirements is needed. A study of pathogens infecting arracacha should also be made.

Three varieties of cultivated arracacha (distinguished mainly by the color of the flesh of the roots) are known. Wild varieties may exist in the Andean region; they should be sought and preserved. No analysis of the relative nutritional and agronomic merits of even the existing varieties has been done. Research on this is needed.



### Selected Readings

- Constance, L. 1959. The South American species of *Arracacia* (Umbelliferae) and some related genera. *Torrey Botanical Club Bulletin*, 76:39-52.
- Hodge, W. H. 1954. The edible Arracacha—a little known root crop of the Andes. *Economic Botany*, 8(3):195-221.
- Higuítia Muñoz, F. 1968. El cultivo de la arracacha en la sabana de Bogotá. *Agricultura Tropical*, 24(3):139-46.
- Higuítia Muñoz, F. 1969. Comparative yield of nine varieties of *Arracacia xanthorrhiza*. *Agricultura Tropical*, 25(9):566-70. *Field Crop Abstracts*, 24(1):1015.
- León, J. 1967. Andean tuber and root crops: origins and variability. *Proceedings First International Symposium. Tropical Root Crops, 1 Pt.* 1:121.
- Kay, D. E. 1973. *TPI Crop and Product Digest No. 2: Root Crops*. Tropical Products Institute, London. (Available from Publications Section, Tropical Products Institute, 56/62 Gray's Inn Road, London WC1X 8LU, England. Price £1.50 plus postage.)

### Research Contacts and Germ Plasm Supply

- Botanical Museum, Harvard University, Oxford Street, Cambridge, Massachusetts 02138, USA (R. E. Schultes)
- Department of Botany, Indiana University, Bloomington, Indiana 47401, USA (C. Heiser)
- Instituto de Ciencias Naturales de la Universidad Nacional, Apartado 2535, Bogotá, Colombia (A. Fernández-Pérez)
- L. H. Bailey Hortorium, Cornell University, Ithaca, New York 14850, USA (W. Hodge)



# GREGORY PECS EZ:

A lot of folks in cold winter regions with short daylengths pork out each fall and winter, a layer of bodyfat covering up all those firm, nicely-sculpted muscles they fashioned all summer long in the great outdoors. If this is you try these tips to stay lean, cheery and fit. First, avoid "winter depression" (Seasonal Affective Disorder Syndrome, also called SADS) by using the light treatments developed by researchers and described in this issue's "SHARING SECRETS" feature to avoid the craving of carbohydrates (including alcohol), sluggishness, over-sleeping and over-eating, depression, and reduced metabolism triggered by short winter daylengths reducing the amount of full-spectrum light entering the eyes and thus understimulating the pineal gland deep in the brain, resulting in hormonal shifts affecting mood. Eat a lot of low-fat vegetarian or vegan soups on cold days, using frozen and dried produce from your garden plus lentils, beans and potatoes, not fatty meats. Drink plenty of water. On days too snowy to jog do 100 or more jumping jacks indoors for calorie-burning aerobic, mood-lifting cardiovascular workout. Use a set of free weights to do a vigorous body-building workout 3 times a week, hitting your shoulders, legs, arms, chest and back. Do 50 pushups 50 sit-ups, and 50 lunges every day. Grow a lot of houseplants to keep the indoor air fresh, freer of dust, more humid and richer in oxygen. Pig out on holidays, eat a high fiber low fat diet the rest of the time. Do all this and you'll not devolve into a walrus wallowing in the snow...Yo Bro!, Jock-and-Fit is the Way to Go!

# Floridata



by  
Sally Hassy



Every several years Florida gets hit by a killing freeze; since there is usually 2-3 days warning, use that time to give your entire landscape a VERY deep watering, as well-watered plants resist freeze damage better. The day before the cold front arrives, cover tomato and pepper plants and small tropicals with inverted 5 gallon buckets, garbage cans or cardboard boxes; you can also place a lit fat candle inside. Run strings of Christmas lights through hibiscus and gardenia bushes, etc. and cover them with blankets. Wrap blankets around baby citrus trees.



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## LEAST-TOXIC WEED CONTROL

Weeds are the one gardening problem that tempt organic gardeners to buy some hideously toxic (but "convenient") elixir in a perky spray bottle for covert midnight use. But trying to "round up" your weeds in a chemical corral using even the so-called "safe" herbicides that "break down" (into what?) in 2 weeks is a short term fix that disregards soil and environmental health. Following are several safer, CHEAP methods of weed prevention, control and elimination.

1. **BOILING WATER** in a tea kettle straight from the stove to the weed, allowing minimal time for the water to cool will kill most weeds in the seams of sidewalks, driveways, brickwork, stone walls, etc. Will also work in the lawn...it will, of course, kill a patch of grass, too, but a healthy, organically-grown lawn will quickly fill it in.
2. **WHITE VINEGAR** in a spray bottle will fry most annual weeds if they are sprayed till dripping on a sunny day.
3. **IRON SULPHATE**, commonly used to acidify soil or to correct iron deficiencies, if sprayed as a strong solution onto weeds on a sunny day, will quickly blacken and kill most weeds. Dissolve about  $1\frac{1}{2}$  cups of it in 1 gallon very hot water, stir, then filter through an old pillow case to remove the tiny grit that will plug your sprayer, then drench each weed. Caution: this mineral has a foul sulphurous smell that may persist in your sinuses for hours, plus the iron content will stain clothing and concrete irreversibly.
4. **FEED-GRADE UREA**, purchased from feed stores in 50 lb. bags for about \$10, is 46% nitrogen and can be poured about 1 inch thick on weed infestations along fencelines, curb sides, driveway seams, etc. to burn them out...the residues that rinse away in rain then feed the soil after being digested by beneficial soil microbes. (The scent of ammonia is detectable for a few weeks as the urea decomposes). Its use is controversial, advocated by some permaculturists and organiculturists due to its dependence on soil microbes and its manufacture primarily from natural gas (a natural substance)...others denounce its use as a soil amendment due to its artificial origins...certified organic farms, for example, CANNOT use it to feed the soil. But for some, using it as a relatively non-toxic weed killer is a comfortable third alternative in this either-or debate. Fertilizer-grade urea may contain an impurity called "biuret"...feed-grade urea is fed to cattle raised for human consumption...the high nitrogen content is converted by the animal's body directly into muscle mass, an unsavory thought at best. It is also found in many moisturizing lotions due to its ability to absorb atmospheric humidity and condense it.
5. **NUCLEAR WASTE**, if spot-applied to dandelions in your lawn, will not only kill them, all those brightly glowing spots in your front yard will make using your porchlight unnecessary, cutting your bill AND helping the environment by reducing your reliance on electricity likely generated by some nasty coal-fired power plant. Plus the radiation may create some intriguing mutations or "sports" in your garden plants (or your kids!). Just Kidding.
6. **BLACK PLASTIC**, if used to cover a weedy area that has first been heavily fed with high nitrogen soil amendments like cottonseed meal, Ringer Lawn Restore, fresh horse or poultry manure, etc., then heavily watered, can be used to "cook" the weeds out via the collection of solar heat AND the trapping of the ammonia gas that will be released by the decomposition of the nitrogenous nutrients and the weeds themselves. Just be sure to use heavy boards or long pipes or a good number of stones or bricks all along the edges to tightly seal in the heat and the ammonia. Six months later, remove the plastic, turn the now weed-free, moist and highly fertile soil, water deeply and replant.
7. **A THICK MULCH** of organic grass clippings (about 4"-6" thick) or straw or hay (about 6"-10" thick) will VERY effectively control most annual weeds in a vegetable or flower garden while keeping the soil quite moist and cool, not to mention fertile. If viciously perennial weeds like Canada thistle, dollarweed, bindweed, etc. are the problem FIRST apply that season's soil feeding (cottonseed meal, etc.) THEN cover the ENTIRE unplanted garden with a continuous layer of flattened cardboard boxes THEN apply a 10"-12" thick mulch of hay (alfalfa in temperate zones, "coastal" hay in the Deep South and Gulf Coast). Let the garden lie fallow for 3-6 months, then use your hands to make a small opening in the hay layer, make an opening in the now-soft cardboard layer, and then plant your seed or seedling. You can then recolonize the now weed-free garden with perennials, veggies or herbs. In an established (but weedy!) perennial flower garden, mulch the entire area RIGHT UP TO THE BASE OF EACH PLANT with a continuous  $\frac{1}{2}$ " to 1" thick layer of pre-dampened newspaper, then cover that with 4"-6" of organic grass clippings or alfalfa or coastal hay...just don't pack the mulch directly against the base of each plant or you may rot it out. Be sure to overlap each thick, heavy section of newspaper by 4" to insure there are no openings for the weeds to grow up through. Let the stack of newspapers sit in the rain or your sprinkler for a few days first to make it easy to work with.

# SHARING SECRETS

Snowy winter gardeners can take on old freezer with the motor and latch removed and bury it in the soil to within a few inches from the top for an in-ground "root cellar" to use all winter long. Just be sure to insulate the exposed lid well.

For easy rinsing of freshly-dug root crops, toss them into a plastic clothes basket, and spray them with a garden hose as you rotate and shake the basket. Then the mud and water can run off into a dry part of the yard, not your kitchen drain.

A posthole digger is far more effective and easier than a bulb planter for making holes for tulips, daffodils, etc.

After harvesting your sunflower seeds each fall, strip off the leaves for the compost and leave the stalks standing until they are dry and brittle. Then break them into small lengths to use as kindling in the fireplace.

Try setting your seedflats on top of the TV or refrigerator where the warmth may give you quicker and better germination.

To decide if a tree or shrub has died after a hard freeze or being transplanted, notice if the drop leaves drop off...if so, it's usually just shock. But if the dead leaves remain attached, it's probably dead. To be sure, scratch the bark with a pocketknife...if it's a bright green, it should be okay. If it's a dull green or tan, it's a goner.



For a lightweight and effective cloche to cover garden plants with to protect them from frost, check the dumpsters behind big pet stores or aquarium shops...live fish and water plants are shipped in big styrofoam "ice chests" that if inverted over a plant and held in place with a brick or stone, affords excellent insulating properties. Or punch a few holes in the bottom, sink it into a pit the same size and nearly as deep, fill it with compost and presto! you've got a nearly-buried growing container in which to grow mint, horseradish, and other invasive crops...for FREE!

For a list of very unusual fruits and veggies from eastern Europe and the former Soviet Union, send \$2 to: One Green World, Box 1080, Molalla, OR 97038. Ph. (503) 651-3005. This company is owned by Jim Gilbert and offers weirdies like edible-fruited honeysuckle, mountain ash-hawthorne hybrids, "black" plum tomatoes, a magnolia vine that bears red edible fruit, sea buckthorn and more!



**PRUNE WISTERIA IN AUGUST**  
 TRIM ENDS TO 3 OR 4 BUDS  
 PRUNE TO TWO MAIN STEMS—CUT TOP OF VINE TO INCREASE SIDE SPREAD.  
 ROOT PRUNE WISTERIA NON-BLOOMERS. THEN FILL CUT WITH GOOD RICH SOIL.

**PRUNE CLEMATIS IN MARCH**  
 LARGE FLOWERING HAVING TWO BLOOM PERIODS—CUT ONLY DEAD WOOD AND WINTER-KILLED TIPS. (MEXICAN, COMA, BURG, ETC.)  
 CUT CLEAN AT BUD TO AVOID END SPLIT AND ROT

**CLIMBING ROSES -- RAMBLERS --**  
 PRUNE LARGE FLOWERED CLIMBERS SPARINGLY IN SPRING. THEY PRODUCE ON OLD WOOD. SAVE THE NEW CANES. SHORTEN SIDE SHOOTS SLIGHTLY. TAKE OLDEST CANES OUT COMPLETELY AT BASE.  
 PRUNE AFTER FLOWERING—THEY PRODUCE ON LAST YEAR'S NEW WOOD. KEEP NEW GROWTH. PRUNE TIPS TO SHAPE TO THIN. TAKE OUT OLDEST OR DISEASED CANES.

**PLANT VINES WHERE WATER WILL NOT DRIP ON THE ROOTS**  
 3 FT. GOOD FERTILE SOIL  
 SHEET LEAD MAKES GOOD HANGERS  
 SOIL BROKEN UP TO DRAIN AGE

**LARGE FLOWERED SUMMER BLOOMING CUT 2 FT. FROM GROUND**  
 CUT THE RAMPANT GROWERS TO THE GROUND

**3 TO 4 FT. FROM ROOT STEM**

**2 FT.**

**DOORTHY PERKINS AMERICAN PILLAR EXCELLS A—**  
**M. WALLACE, OR VAN FLEK & JACOBY, ETC.**  
**PANICULATA TEXENSIS OREGONA**

A tree trunk or pole set into the ground with cement, & with anchored chains lashed to it tee-pee style is excellent for pillar roses, clematis.

# VOWEL MOVEMENTS

COMMONLY-USED BOTANICAL TERMS, OFTEN AS COMPONENTS OF PLANT NOMENCLATURE

**Alba, Albus, Album-** Means "white" i.e. "Rosa rugosa alba".

**Canadensis-** refers to any species native to Canada, i.e. "Sambucus canadensis"  
(Elderberry)

**Ruber, Rubrum, Rubra-** Means "red" i.e. "Rosa rugosa rubra"

**Sempervirens-** Means "ever-living" or "evergreen" i.e. "Rosa sempervirens"

**Chinensis-** means "Chinese" i.e. "Rosa chinensis"

**Deciduous-** Trees or shrubs which lose their leaves each fall.

**Cuticle-** A waxy layer on the outer surface of a leaf.

**Annual-** A plant which completes its life cycle in one year and then dies.

**Biennial-** A plant which completes its life cycle in two years and dies.

**Perennial-** A plant which continues to live year after year.

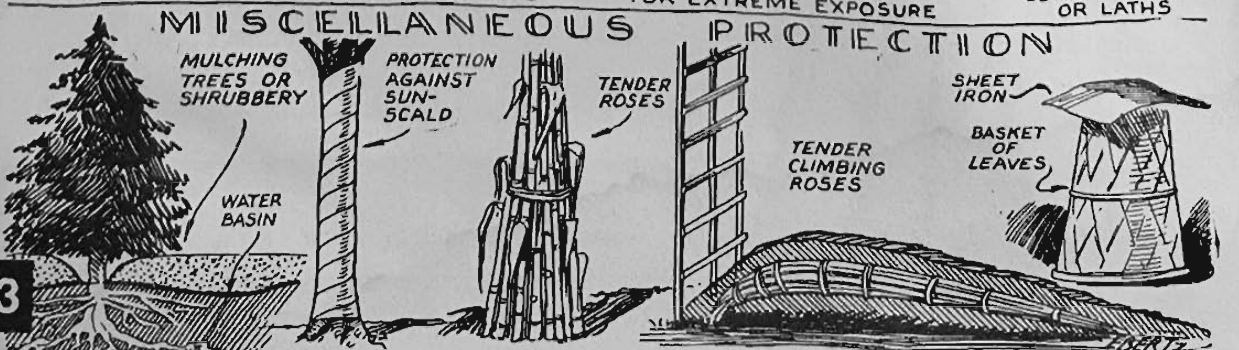
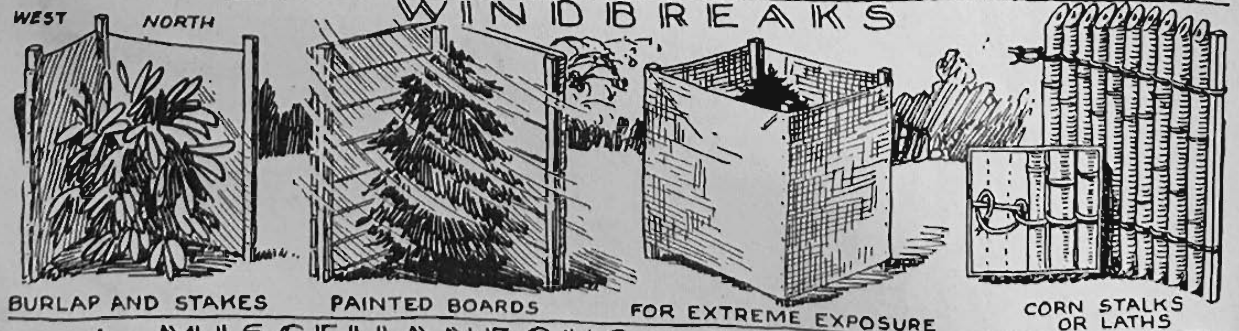
**Acer-** Latin for "Maple" i.e. "Acer palmatum".

**Atropurpureum-** Latin for "black-purple" i.e. "Acer palmatum 'Atropurpureum'".

**Quercus-** Latin for "Oak" i.e. "Quercus alba" (White Oak).

**Brassica-** Latin for "Mustard" i.e. "Brassica nigra" (Black mustard).

## WINTER PROTECTION



"Why must we learn it the hard way, and play the game of life with our hearts?" Yoko Ono



As our Northern Hemisphere of the Earth leans away from the sun during daylight hours once again, Fall returns, with winter on its heels. Our gardens respond to this and change, offering us many chores and much potential, so we can improve them once again.

Gardeners in temperate zones where winter chills or even freezes the ground for a few months, and where snow is common, can use Fall as a prime soil-building season. In the vegetable garden, after the last harvest, one can broadcast first, garden waste, then, generous amounts of one or more of the following: compost, manure, fallen leaves, tree grindings, brewery waste, cottonseed meal, alfalfa meal or pellets, kelp meal, dry dog food nuggets, rock dusts, soybean meal, and other nutrient sources..... turn the soil over for winter mellowing and decomposition of these nutrients. Lawns and perennial flower gardens can be fed with these materials too, then watered deeply. Late fall is the best time to lift and divide overgrown perennial flowers (daylilies, physostegia, monarda, etc.), veggies (comfrey, rhubarb), and herbs (lovage, chives, valerian). A few weeks before the ground freezes, plant your tulip, daffodil, Crown Imperial and other bulbs. After the first hard freeze or two mound 8"-10" of heavy garden soil over the bases of each of your roses be they own-root OR grafted, and trim off long lanky branches to prevent damage from heavy snows. Before the first frost dig up hot peppers, geraniums, and cherry tomatoes, cut them back to 8"-10" stubs, and pot them up in a nice rich new compost with a bit of garden soil to grow this winter in a south-facing window. Just as the ground starts to freeze, mulch root crop (carrots, beets, turnips, etc.) areas with 2 FEET of insulating straw or spoiled hay to keep the soil from freezing..... all winter long you can push off the snow, pull back the mulch, harvest, and replace the mulch layer. And remember, if you pot up a beet or turnip or dandelion root, you can grow them in a south window for fresh winter "greens". On cold snowy days curl up in your favorite chair with a comforter, a pen and pad, and a cup of something steamy hot...in that cozy nest you can dream of and plan next spring's gardens.

For subtropical gardeners in the lower half of Florida, most of the Gulf Coast, southern Arizona and California, winter brings the cooler temperatures that allow gardeners there to grow the annual flowers and veggies that can't tolerate the vicious summer heat, especially if it is coupled with high humidity. Feeding the soil in all gardens and the lawn, putting tulip and daffodil bulbs in small paper bags in the refrigerator produce drawer for 2 months (to simulate winter dormancy) before planting in pots or in the garden for a touch of northern spring gardening, re-mulching the gardens, stockpiling birdseed for those species that overwinter in mild areas, and planting heat-sensitive crops like broccoli, Brussel's sprouts, beets, chard, daikon, mustard, cauliflower, carrots, lettuce etc. plus charmers like snapdragons, alyssum, calendulas, sweet peas, pansies, stocks, and sunflowers...all this can begin in October or so as cooler temperatures settle in. Some balmy January day, sit in the shade of a fragrant citrus tree with iced tea and pen and pad and plan a spring garden based on tropical or heat-tolerant crops like okra, black-eye peas, pigeon peas, cucusa, lemon grass, true (white) yams, tannier, bananas, eggplant, roselle, plus posies like pentas, vincas, firespike, eranthemum, Tea and China roses, and all the other "exotics" northern gardeners can only dream of or grow in pricey greenhouses..each area offers its botanical gifts.

So don't be surprised if someday you realize that it is YOU along that has been growing! Such is the urge of many gardening hearts.

You can't hit a target you cannot see, and you cannot see a target you do not have. Zig Zigar



"The world is cluttered up with unfinished business in the form of projects that might have been successful, if only at the tide point someone's patience had turned to active impatience."

Robert Updegraff

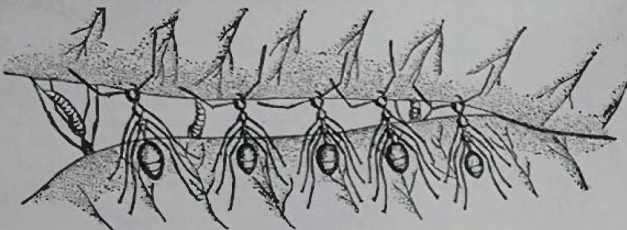


# Self Study Guide

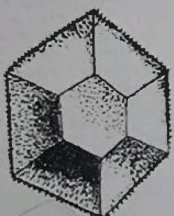
**Striped cucumber beetle**  
Actual size:  $\frac{3}{8}$ "



**12-spotted cucumber beetle**  
Actual size:  $\frac{3}{8}$ "



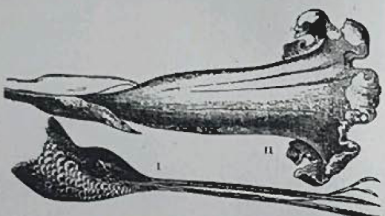
—Tropical ants, *Ecophylla emarginata*, building a nest among leaves. The worker ants pull the leaves together and hold them in place while other workers bring up larvae of their own species and, by moving them back and forth across the gap, sew the leaves securely together with silk spun by the larvae. (From Wheeler, "Ants," after Doflein.)



Greatly magnified pollen grain of Dandelion (*Taraxacum officinale*)



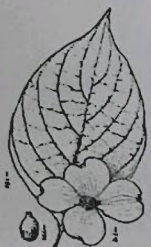
Morel mushroom (*Morchella esculenta*)



—Flower-Preceding Bird, with a Flower. I, head of a sword-beak; II, a datura flower, visited by it.



Northern catalpa.



Flowering dogwood.



Sugar maple.



Black maple.



cutworm



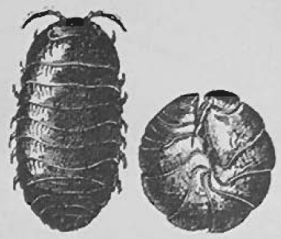




Saffron-plant (1/2 natural size).



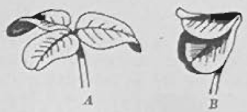
Hazelnut (Corylus americana)



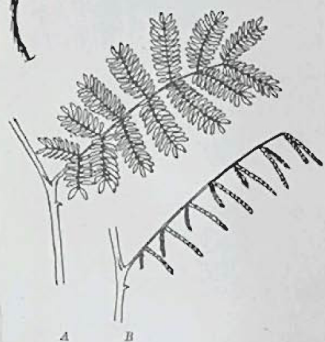
—The greenhouse pillbug. Left, extended; right, rolled into a ball. Enlarged. (From U. S. D. A. Farmers' Bull. 1362.)



Pilocybe mexicana



—A Leaf of White Clover. A, leaf by day; B, the same leaf asleep at night.



—A Leaf of Acacia. A, as seen by day; B, the same leaf asleep at night.



—Melastomaceae. Melastoma Melastrioides. (After Ballou.)



—A typical hantidiate insect, an aphid with mouth parts inserted into the tissues of the plant.



Flycatcher (Drosera rotundifolia)



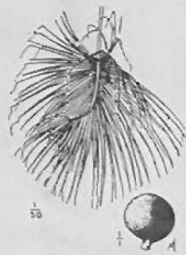
Atlantic white-cedar.



Eastern red-cedar.

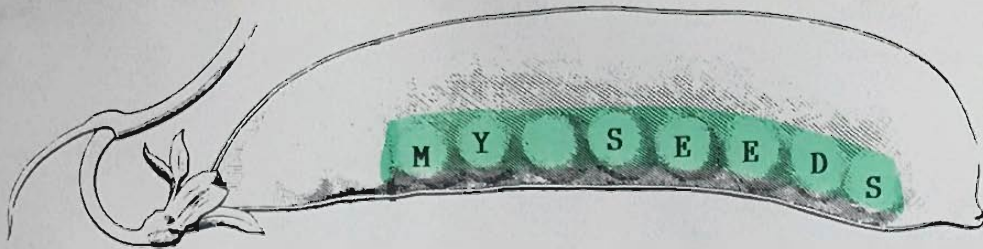


Southern red-cedar.



Cabbage palmetto.





On your seed packet with ONE BEET JUICE FINGERPRINT write: **Malva sylvestris.**

This is the pressed flower on the cover of this issue. Native to Europe, this cold hardy member of the Mallow Family is an annual after brutal winters, weakly perennial after mild ones. It self-sows readily in temperate zones. The tender young leaves are delicious cooked or raw in salads; the purple and magenta blooms are beautiful in salads, and appear continuously from spring till the second or third frost. Sow the seeds about  $\frac{1}{4}$ " deep in early winter in subtropical areas (it may not grow well there) or in late fall or early spring in snowy regions...the seeds germinate best after chilling. This strain of malva produces variably-shaped flowers, and will cross-pollinate others malvas like Malva crispus. Plants are about 3 feet tall & wide.

On your seed packet with TWO BEET JUICE FINGERPRINTS write: **Alsike Clover.**

(Trifolium hybridum). This weakly perennial relative of red clover is similar in appearance but with flower heads of blended pink and white, and the plant is smooth, not hairy. It also tolerates wet, acid, relatively infertile soils better than does red clover. Its protein content of over 8% makes it good food for herbivorous pets, and an excellent "green manure" to be turned under the soil just as flowers form. Sow the seeds  $\frac{1}{4}$ " to  $\frac{1}{2}$ " deep in early spring in temperate zones, early winter in subtropical areas where it will likely be a short-lived annual. Alsike clover seed can be bought by the pound at seed houses for those who wish to grow large areas of it for use as a freshly-harvested home-grown organic mulch.

On your seed packet with THREE BEET JUICE FINGERPRINTS write: **Feverfew**

(Tanacetum parthenium). This cold hardy, drought tolerant relative of the chrysanthemum has petite white daisies with yellow eyes in profusion late in the summer in temperate areas. Aside from its value in xeriscape gardens, feverfew's long standing reputation as a preventative and treatment for migraine headaches seems to be verified by medical science. Some herbalists recommend eating a large leaf daily to prevent migraines. Another traditional use is as a weak tea consumed after childbirth to help expel the placenta, or to promote menstruation. Sow the seeds  $\frac{1}{4}$ " in early spring in snowy-winter regions; the plants self-sow each fall thereafter. Subtropical gardeners should sow them in early winter to grow as winter annuals.

The seeds in this issue have been pre-chilled for you to enhance their germination. And remember: ALWAYS store all your seed packets in your refrigerator ( freezer...NOT! ) to help insure their continued viability.

"Horticulture is, next to music, the most sensitive of the fine arts. Properly allied to Architecture, garden-making is as near as a man may get to the divine functions." Maurice Hewlett

Support  
Organic  
Farmers



**"YOU MUST READ THIS BOOK!"**

A book review by **Marta Steward**

As soon as I appeased Brian Gumball by stuffing him with my "Chili from Hell" and re-tiling his swimming pool with chopped up credit cards, I curled up with a remarkable book entitled "Food from Dryland Gardens; An Ecological, Nutritional, and Social Approach to Small-Scale Household Food Production" by David A. Cleveland & Daniela Soleri, 1991, publisher "Center for People, Food and Environment".

Now let me tell you, despite that cumbersome title, this nearly 400 page paperback book should be read both by advanced permaculture gardeners AND novice gardeners of any persuasion, for it is a treasure of insightful, ingenious, simple and effective techniques for creating and maintaining many styles of food gardens growing in diverse conditions. Similar in "feel" to Bill Mollison's "Permaculture", this book is also more charming, due in part to the simple, child-like line drawings used to illustrate various concepts and techniques, and to its "no axe to grind" gentleness when pointing out the ill effects of Industrial Countries condescendingly "helping" native peoples around the world to "improve and reform" their local farming methods without knowing those peoples, their land or the local biota and climate. And while this book is CRAMMED with useful information, it is well-organized and easy to read.

The sweeping range of topics covered includes: human wellness issues, crucial human nutrients and their sources, social and agricultural economics, localized problem solving, basic structures and life cycles of plants, hybridizing in the home garden, seed planting methods, proper watering, propagation techniques, erosion control, water conservation, mulching methods, grafting, garden ecosystems, weed management, soil types, soil enhancement, pruning methods, groundwater and wells, irrigation techniques, pest identification and control, genetic diversity, harvesting and cooking methods, food drying and storing, garden foods for weaning children, crops suited for dryland farming, and much, much more. It amazes me, Marta Steward, that this excellent book remains obscure...next time I'm on the "O'tay Show" with Brian Gumball I'll give it a big plug, for it offers an unrivalled wealth of pragmatic, easily-understood information in a likeable fashion using a format that the gardener could turn to time and time again. If you cannot find it at your local bookstore (which is likely) write the folks at the:

**Center for People, Food and Environment (CPFE)**  
344 South Third Avenue  
Tucson, AZ 85701

These folks will sell it direct in their efforts to make it as widely available as possible. Please DO seek it out, then help me tile Brian Gumball INTO his basement wall using recycled yogurt caps!

# RAUBINARI!

By excising the undeveloped embryos from 6 week old seedless grapes, David W. Ramming at the U.S.D.A.'s Horticultural Crops Research Laboratory in Fresno, California has produced the DOVine, a hybrid between 2 SEEDLESS grapes that is seedless AND dries into a raisin while still on the vine, solving the rotting problems that rain can cause while conventional raisin grapes spend 4 weeks drying in trays in the sun.

SCIENCE NEWS 5-13-95

*Dischidia major*, an epiphytic (non-parasitic) plant that clings to trees in Sarawak, Malaysia, gets 39% of its carbon dioxide from ants that live inside its sack-like leaves. Almost 30% of the plant's nitrogen needs are met by ant feces, dead ants, and remains of their insect meals.

NATURE 5-11-95

10 days after the Pentagon announced in June that it did NOT need anymore Stealth bombers, the House voted to fund the construction of more.

Joint Chiefs of Staff, Washington

Men exposed to the scent of roses experienced a median 4% increase in penile blood flow.

Alan Hirsch, Smell & Taste Research and Treatment Foundation, Chicago

A single bunch of red Thomson seedless grapes weighing 20 lb. 11½ oz. was weighed in Santiago, Chile in May 1984.

Guinness Book of World Records

Scientists have discovered 6 proteins from the midguts of the grasshopper "*Romalea guttata*" that dramatically boosts plant growth. One protein caused a quadrupling of the growth rate of sorghum plants, even at very low concentrations.

SCIENCE NEWS 6-17-95



The heaviest known orange was the size of a human head and weighed 5 lb. 8 oz. and was exhibited in Nelspruit, South Africa on June 19, 1981. It was later stolen.

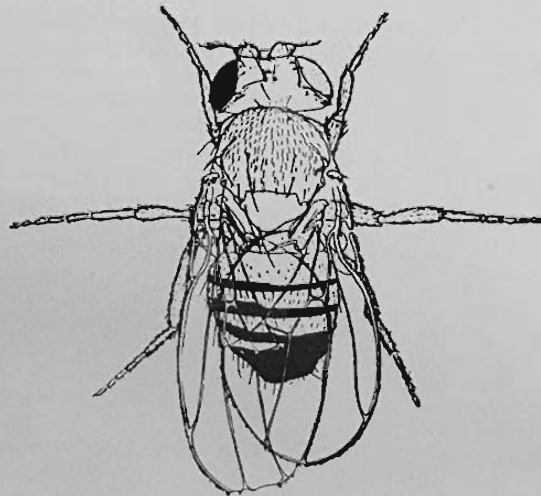
Guinness Book of World Records

In 1993 the inflation rate in Serbia increased by 363,000,000,000,000,000%

Embassy of Yugoslavia

A corn stalk 31 feet high was grown in 1946 in Washington, Iowa by Don Radda

Guinness Book of World Records



—A specimen of the common pomace fly, *Drosophila melanogaster* Meigen, that is half female and half male, a gynandromorph. The dark eye, notched wing, and shape of the abdomen on the left side are those of a female; while the broad wings, color and character of eye, gnarled or twisted bristles, and other characteristics of the right side show that this half is male. (From T. H. Morgan, C. B. Bridges, and A. H. Sturtevant, "The Genetics of *Drosophila*.")

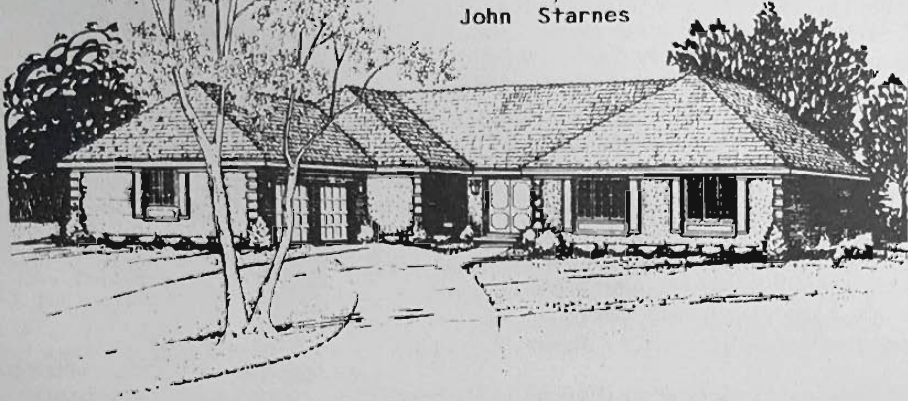


A group of treehoppers or membracids, showing the remarkable development of the pronotum. (From Funkhouser, Cornell Agr. Exp. Sta.)

Though luxury is a delightful adjunct to happiness it has never been able to create it. Lucas Cleene

## THE "OH" ZONE Layer

by  
John Starnes



In many cities, zoning laws, neighborhood association covenants and neighbors' attitudes about residential landscaping have not caught up with increasingly progressive, environmentally aware property owners seeking to reduce their use of water and other resources, stop all pesticide use, and increase their reliance on xeriscapic and/or native plants.

So if such a soul were to, in a short time, strip up their huge, non-native monocultural lawn and token junipers-hugging-the-house, and replant with native prairie wildflowers and grasses and, heaven forbid, food crops, they would be seen as having created a neighborhood eyesore, a "weedlot", with subsequent hearing before a "board", etc. But as usual there is a third alternative to this either-or dilemma...create an "Oh" Zone Layer in front of your property.

An "Oh" Zone Layer is an (initially) thin strip of enviably attractive "normalcy" that either distracts, pacifies or paralyzes with envy more conservative neighbors. As the old saying goes "You get more flies with honey than vinegar"...one can win over more neighbors to your views on having a more Eco-Logical landscape if, instead of weirding them out or alienating them with too much change too soon, you "Wow!" them with a colorful and lush "Oh" Zone out front while elsewhere you slowly replace more lawn with herb and veggie gardens, groundcovers, wild bird feeding areas, a wildflower "meadow", or even, eventually, a few pet chickens for slug control and free eggs. As an organic landscaper I've long noticed that my customers' neighbors will forgive or even not NOTICE a drastic reduction in the front lawn because what remains is the thickest and greenest on the block. So on their evening strolls neighbors say "Oh, look how GREEN Frank's lawn is...did you know he's gone organic?". Or when they see a big, lush English flower garden where resource-hungry lawn once prevailed there's no complaints just..."Oh, I can't believe how Graig and Shanti's flower garden is always so colorful and full of flowers I've only seen at the botanic gardens! Meanwhile, out back they have a veggie and herb garden, a natural pond, a recreated "forest", a big garden of Old and Modern roses, and a xeriscapic south slope of California poppies and blue salvia species. An eye-popping "Oh" Zone Layer casts a positive light on later, more "radical" changes like multiple compost bins, a few pet chickens, no grass in the backyard at all, etc. "Oh, they've just gone organic...look at their ROSES! And they NEVER spray!". You get the idea.

For my Denver customers I create "Oh" Zone Layers consisting of reduced (but VERY healthy)polycultural lawns, big, thickly-mulched English style perennial flower gardens (with a fair number of self-sowing annuals and biennials) and, of course, own-root Old the heavy, alkaline clay more fertile, absorbent, pH-neutral and thickly mulched with organic grass clippings, alfalfa horse cubes or hay, or tree grindings as this is a VERY dry region in the summer. A "Weed Popper" tool, in combination with an overseeding of Ephraim-based "Nature's Choice" grass seed blend and total nutrition, makes what remains anemic, chemically-maintained toxic monocultural lawns.

For my Tampa customers I wipe out big areas of chinch bug-and-virus susceptible St. Augustine grass, encourage the now-endemic "Devil Grass" (non-hybrid Bermuda grass) to take over, and create highly-fertile, pH-adjusted (ample dolomite), deeply-mulched ("coastal hay") tropical flower gardens jammed with perennials like red and lavender pentas, yellow bush allamanda, blue eranthemum, yellow African Bush Daisy, salmon and blue Joe Porter weed, plus Tea and China roses on their own roots;bugs & disease are rare.

In short, the "Oh" Zone Layer allows for and encourages progressive but gradual change while providing a covert education for the neighborhood. It's a matter of acclimation and beautification versus confrontation.

# READERS DIGESTED

Hi- Here's our check for another 2 years. Sorry we took so long to get it to you- hope we haven't missed any issues. We are now on a 118 acre farm - we are so busy renovating this abused piece of land that a week that had 250 hours of daylight still wouldn't be long enough! Hope this finds all well w/ you - we really enjoy each issue.

**Andy Smith, Donna Semas Elkton, Oregon**

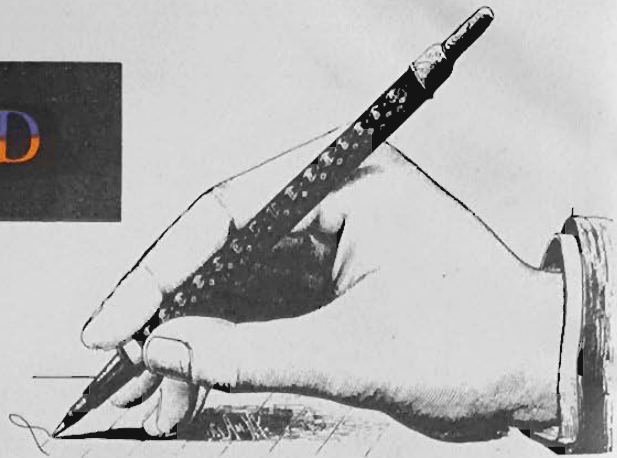
Hi John - ...We look forward to your next visit. I enjoy your company and never tire of discussing roses and gardens. Right now I'm reading "Duck Hill Journal" by Paye Dickey (a woman who gardens on 3½ acres in Upper State New York) and wishing I could grow peonies and lilacs and all the numerous plants that survive so well north of us.

See you soon - **Donna Graminski, Tampa FL**

Dear John, It was a pleasure to talk with you tonight. And I look forward to meeting you someday. THE GARDEN DOCTOR rocks! The emphasis on roses and the design aside, what I appreciate most about your writing is the constant and running sensual commentary. The smell, the taste, the sight: the subliminally erotic, all elements that I strive for in each of my own designs. And, yeah, the rose, in particular the species, with its virginally foliar blush, its romantic floral burst, the swell of its fertile hips and the wise and multi-colored foliar display in fall is matched only by its body builder display of sinew and thorny muscularity in the winter. Over the top! So here are the names and addresses of people I'd like to give THE GARDEN DOCTOR to as a present: Rebecca Rose Allen, Seattle, Stephen Scanniello, Brooklyn, and of course me: **Karl Holmes, Milton, Massachusetts**

Dear Denver! It was good to hear from you, and I envy your cool weather...the roses have all done great and the "Don Juan" better than ever. The pink "Souvenir de la Malmaison" (climber) had 14 blooms at a time and looked so lovely blending with the "Don". Then they bloomed all over again and blended along the top of the wall. The little "Radiance" is growing...it is established and should be growing faster now. My precious "Cracker" rose in the entrance garden has grown up and blended with the oak tree but I will not cut it back because you might want some cuttings. "Cecile Brunner" polyantha always comes through...I am sitting at my desk looking out at the "Don" still blooming, and see much needs to be done. I am having a painful time with arthritis...I am not able to bend over, squat or lift so I will need your help when you come back. Have a good summer and keep well for good health is precious. **Flonny Grant, Tampa Florida**

Hi John, Sign me up for 2 more years. Hope you haven't mailed the Spring 95 issue yet because I'd hate to miss one! THE GARDEN DOCTOR is the greatest! It's a bit of sanity in an insane world! Thank you for all the wonderful work in the Garden Doc. **Jo Reeves, Seattle, WA**



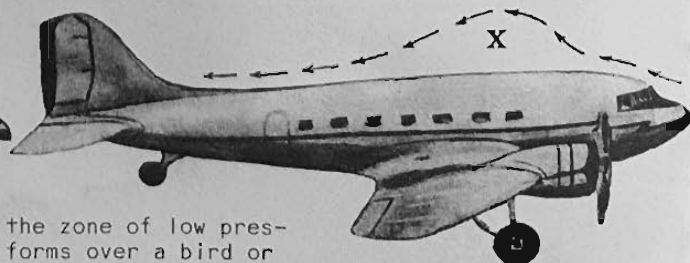
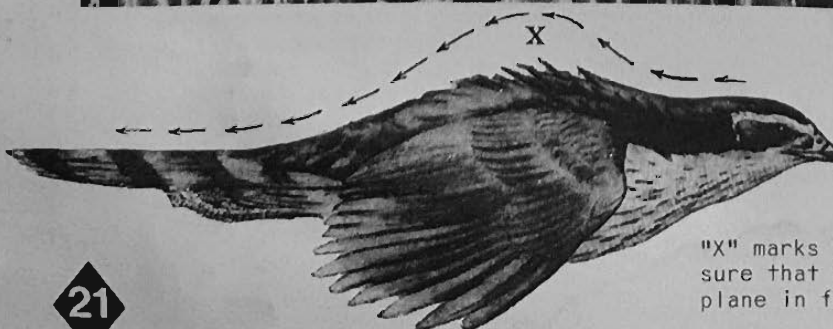
John- I have been skating on perilously thin ice re timing for renewal check. Not due to lack of enthusiasm but rather slim purse. I would no sooner miss an issue of THE GARDEN DOCTOR than throw out my dictionary! Lots of love to you!! **Anne Lathrop, Lebanon, CT**

(renewal letter)...

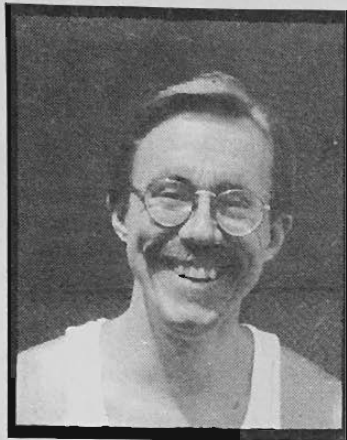
Hi John! Love to have you move back. Hope all is well! **Chris & Doreen Mulcahy, Tampa, FL**

Dear John: Finally, I'm getting my order in. I'm Tambra, Arlene's friend with the Blue Spruce Gazette. This is a gift subscription for my mother. Please send the spring issue to my house, since my mother will be spending most of the summer up here. Thanks, John. Love your stuff! Best regards, **Tambra Nelson, Longmont, Colorado**

Hello kind sir- I am in the midst of migrating once again and must make THE GARDEN DOCTOR a coffee table regular in my new home. If it's no longer a meager \$16 kindly inform me and I shall make amends. Spent all summer rediscovering how excessively fecund eastern Kansas is- I'd forgotten what okra, eggplant & melons could truly do- and all last winter wallowing in how depressingly grey midwestern winters can be- I tried your light-on-a-timer over the bed routine & it seems to have helped- thank you. So keep the Doctor coming, we needs it! **Jeff Kuykendall, Baldwin, Kansas**



"X" marks the zone of low pressure that forms over a bird or plane in flight, generating lift.



I very much wish to thank all of you for subscribing to **THE GARDEN DOCTOR**, especially those of you who renew year after year, as this publication enters its 9th year! It's been a trip! I also wish to thank Dr. Bill Campbell, Mike Shoup, Pat Cullinane, Malcolm Manners, Gregg Lowery, John & Louise Clements, Geraldine Boller, Joan Franson and the Denver Botanic Gardens for supplying me with breeder plants and/or pollens crucial to my rose hybridizing effort...I also wish to thank Joanne Narverud at the Denver Botanic Gardens for authorizing this year my use of their HUGE "New Dawn" climbing rose as a seed parent. I am grateful to Peter Beales for his kind letter and for turning me INTO a rose nut, to Ralph Moore and Keith Zary for their rose seed germination suggestions, and to authors Graham Stuart Thomas, Stephen Scanniello, David Austin for MUCH invaluable data.

Note that protein-rich materials are among the best sources of nitrogen, be it plant or animal protein. Fish market scraps, tofu waste, you get the idea.

Following is a list of natural soil amendments that supply nitrogen, phosphorus, potassium and trace elements (minerals). For those of you not comfortable with using the pulverized remains of slaughtered, factory-farmed, once-sentient animals as fertilizer, I also list vegan (plant, mineral-derived) sources of these vital plant nutrients. John.

**NITROGEN:**

- cottonseed meal (vegan)
- soybean meal (vegan)
- alfalfa pellets (vegan)
- fish meal
- meat & bone meal
- blood meal
- feather meal
- leather dust
- poultry manure
- horse manure
- sheep manure
- fish emulsion
- guano

**PHOSPHORUS:**

- bone meal
- phosphate rock (vegan)
- fish meal
- shrimp waste
- bargasse (sugar cane waste)-vegan
- wood ashes (vegan)
- guano
- animal tankage

**POTASSIUM:**

- potash rock (vegan)
- granite dust (vegan)
- greensand (vegan)
- basalt rock dust (vegan)
- compost (vegan)
- plant wastes (vegan)
- manures
- wood ashes (vegan)
- seaweed (vegan)
- cottonseed hull ash (vegan)

**TRACE ELEMENTS:**

- seaweed (vegan)
- kelp meal (vegan)
- fish meal
- agricultural frit (vegan)
- compost (vegan)
- granite dust (vegan)
- greensand (vegan)
- limestone (vegan)
- dolomite (vegan)
- Epsom salts (vegan)

Note\* Many of these materials can be gotten in 50 lb. bags cheaply at feedstores or local fertilizer distributors (look in Yellow Pages)

# BAD NEWS



According to the U.S. Census Bureau's medium projection the current U.S. population of 260,000,000 will jump to 382,000,000 by the year 2050. This will have a vast impact on the national and global environment, plus compound congestion and crime.

Global warming has apparently caused a significant increase in humidity in the stratosphere at mid-latitudes in the Northern Hemisphere over the last 14 years. This humidity can further damage the already-thinning ozone layer by stimulating the formation of polar clouds which help pollutants destroy ozone molecules.

**Samuel J. Oltmans, David J. Hofmann, National Oceanic and Atmospheric Administration, Boulder, Colorado**

The annual dumping of used motor oil in the U.S. exceeds the volume of the Exxon Valdez spill by 10 times!  
Roper Organization

Since the 1950's, fishing tonnages off the California coast have dropped 35%. In the last 8 years, that area's population of the zooplankton-eating seabird called the sooty shearwater has plunged 90%. The apparent cause is a parallel 80% drop in populations of the microscopic and near-microscopic creatures collectively called zooplankton, which form a crucial link in the ocean food chain. Analyzing data on zooplankton densities and ocean temperatures gathered on 222 cruises between 1951 and 1993 in a 130,000 square kilometer area off the coast from San Diego to Point Conception, researchers detected the dramatic drop in zooplankton and a RISE in ocean surface temperatures of 1.2 to 1.6 degrees centigrade. This warming of surface waters has reduced the upwelling of nutrient-rich deep ocean waters that feed zooplankton.

**John McGowan, Dean Roemmich, Scripps Institute of Oceanography in La Jolla, California**



JUST ABOUT TO PROPOSE, *but...*



One way to avoid reeking is to make and wear home-made herbal perfumes. Here are a few recipes plus a source of essential oils. ALWAYS let each blend "ripen" a month or 2 before using.

### LEMON PERFUME

- 1 cup undenatured alcohol
- 2 tbsps. lemon oil
- 1 tbspn. citronella oil
- 1 tbspn. lemon verbena oil
- 1 tbspn. sandalwood oil.

### HERB SCENT

- 1 cup undenatured alcohol
- 1 tspn. basil oil
- 1 tspn. sage oil
- 1 tspn. dill oil
- 1 tbspn. sandalwood oil

### ROSE SCENT

- 1 cup undenatured ethyl alcohol
- 1/2 cup rose water
- 1 tbspn. rosemary oil
- 2 tbspn. rose oil
- 1 tbspn. storax oil

"Everclear" may be used as the alcohol





**SHIRLEY HOWARD'S**  
 "Whooh!-Whooh!-Whooh!"  
**WHO'S WHO in**  
**GARDEN FRU-FRU LIST!**



**Nyuk!**  
**Nyuk!**  
**Nyuk!**

**RINGER CORPORATION**  
 9959 Valley View Rd.  
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 1-800-654-1047.  
 Very progressive bio-  
 logically active ferti-  
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**BENEFICIAL INSECTS, INC.**  
 P.O. Box 40634  
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 (901) 276-6879.  
 Sells predaceous bugs  
 and their eggs to con-  
 trol pests without  
 pesticides.

**ED HUME**  
 P.O. Box 1450 M  
 Dept. MAN95  
 Kent, WA 98035  
 (206) 859-0694  
 Garden supplies, bulbs,  
 seeds for short-season  
 climates. Kelp.  
 catalog \$1

**THOMPSON & MORGAN**  
 Farraday & Gramme Ave.  
 P.O. Box 1308  
 Jackson, NJ 08527  
 (800) 274-7333 Free, lush  
 catalog with INCREDIBLE  
 assortment of rare &  
 unusual flower, herb &  
 veggie seeds. Often a  
 bit skimpy seed counts.

**GARDENER'S SUPPLY CO.**  
 128 Intervale Rd.  
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 (800) 944-2250  
 Full line of garden  
 supplies, fertilizers,  
 watering systems,  
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**GARDENS ALIVE!**  
 5100 Schenley Place  
 Dept. 4678  
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 (812) 537-8650  
 Very educational, well-  
 illustrated (free!)  
 catalog offering vast  
 selection of organic  
 soil amendments, non-  
 toxic insect traps,  
 botanical pesticides,  
 beneficial insects and/  
 or eggs, mineral dust  
 and garden supplies.

**RORIS GARDENS**  
 9195 Bradshaw Rd.  
 Sacramento, CA 95829  
 (916) 689-7460 Cat. \$3  
 331 varieties of tall  
 bearded iris.

**WATERWISER DRIP  
 IRRIGATION**  
 (800) 332-1570. Free  
 catalog.

**HOOP HOUSE Greenhouse Kits**  
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**JOHNNY'S SELECTED SEEDS**  
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 over 700 varieties of herb,  
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**PARADISE WATER GARDENS**  
 144 May Street  
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 (617) 447-4711  
 Free catalog with full  
 line of water gardening  
 supplies. Over 150 vari-  
 eties of water lilies,  
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**PETER PAULS NURSERY**  
 4665 Chapin Rd.  
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 Carnivorous plants & seeds,  
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**SOUTHMEADOW FRUIT GARDENS**  
 Box SM  
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 (616) 469-2865. Catalog \$9.  
 Over 500 varieties of rare  
 fruit trees and shrubs.

"What lies behind us and what lies before us are tiny matters compared to what lies within us." **Ralph Waldo Emerson**



**TRIED AND TRUE TONIC FOR MEN**  
 (aphrodisiac) from **THE MALE HERBAL**  
 by James Green

Prickly Ash 1 oz. Orange Peel 1/2 oz.  
 Sarsaparilla 1 oz. Cinammon 1/2 oz.  
 Valerian 1/2 oz. Thyme 1/2 oz  
 Licorice 1/2 oz. Ginseng 1/2 oz or more  
 Yohimbe 1/8 oz. (optional)  
 Saw Palmetto 1 oz.

Cover herbs with brandy or vodka,  
 store in cool place 2 weeks, shake  
 mixture daily. Strain, replace  
 ginseng roots. Take 1 tspn. daily.

## PERFECTLY EDIBLE VEGETABLE LEAVES

1. Bush beans, pole beans (tender, newly opened leaves)
2. Squash, pumpkin (tender, newly opened leaves used in Asian stir fry)
3. Broccoli
4. Brussel's Sprouts
5. English Peas, Snow Peas
6. Carrots (use in soup stocks)
7. Daikon (cooked or pickled)
8. Vigna sp. (Black-eye Peas, Yard-Long Beans). tender new leaves.

## TOXIC VEGETABLE LEAVES

1. Potato
2. Tomato
3. Eggplant
4. Huckleberry
5. Rhubarb
6. Groundcherry
7. Tomatillo
8. Jicama
9. Hot peppers
10. Bell peppers

## What About Rose Soup?

By BIRGIT SVERDRUP BALDWIN, Hillsboro, New Hampshire.

EDITORS' NOTE.—What next? Here is a novel use for those big *Rugosa* heps! On page 186 of the 1923 Annual Dr. Hiram DePuy told how to make "A Rose-Hip Confection."

EVERY peasant in Sweden knows how to use the fruits of roses as food. Those most commonly used come from *Rosa rugosa* and *R. canina* which grow wild abundantly in Sweden. Frequently the fruits are sold in the market, but mostly they are collected for direct use.

The largest and best of the ripe fruits are gathered. The sepals and stems are removed. This leaves a hole large enough for the removal of seeds by a small knife. Then the fruits are either sterilized and canned in glass jars, or they are dried. The latter is more economical. It is common knowledge, however, that they taste better when freshly prepared.

It is in the preparation of soup that the rose fruits are most used. A quantity of fresh fruit is placed in water, sugar is added to taste, and a small amount of potato flour or cornstarch is added (about a tablespoonful to two quarts of liquid). The fruits are cut in segments and it is not necessary to remove the seeds since they may be removed by straining after the material has been well cooked. This makes a stock which may be kept for a time, and then further sweetened to taste, thickened, and reheated for serving. Whipped cream or shredded almonds are usually added. When dry fruits are used, they are soaked in cold water over night.

Another way to keep the fruits is to make them into a "mush" or "butter" which is canned. The fresh fruits are barely covered with water and boiled for about two hours, with constant stirring until the mush is fairly thick. Then it is strained through a sieve and put into glasses or glass fruit-jars and sterilized. It will keep indefinitely. This mush can be made into soup.

Rose soup is sweet and palatable, and it has long been widely used as dessert, especially during the winter season, by the country people of Sweden and possibly elsewhere in Europe. One can scarcely help wondering if the food prepared from the highly colored fruits of the wild roses may not be richly supplied with certain important vitamins!


How to Be a \_\_\_\_\_ (fill in the blank)

stay loose.  
learn to watch snails.  
plant impossible gardens.  
invite someone dangerous to tea.  
make little signs that say "yes!"  
and post them all over your house.  
make friends with freedom and uncertainty.  
look forward to dreams.  
cry during movies.  
swing as high as you can  
on a swingset, by moonlight.  
cultivate moods.  
refuse to be "responsible".  
do it for love.  
take lots of naps.  
give money away.  
do it now.  
the money will follow.  
believe in magic.  
laugh a lot.  
celebrate every gorgeous moment.  
take moon baths.  
have wild imaginings,  
transformative dreams,  
and perfect calm.  
draw on the walls.  
read every day.  
imagine yourself magic.  
giggle with children.  
listen to old people.  
open up, dive in, be free.  
bless your self.  
drive away fear.  
play with everything.  
entertain your inner child.  
you are innocent.  
build a fort with blankets.  
get wet.  
hug trees.  
write love letters.

"Anonymous"

(special thanks to Ron Ricketts of Denver, Colorado for submitting this charming piece.)



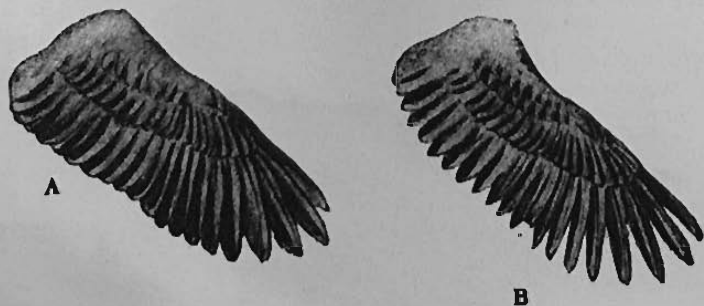


## Margaret Head's View of the News

Of late I've read that certain sociologists insist that alienation and loneliness are the norm in our society, that most of us feel "unconnected" to others. Maybe they are just projecting their own issues onto us Joe and Jayne Does, for my friends and I share a wealth of interesting friends and acquaintances, each unique and thus filling a special niche in our respective lives. It occurred to me recently that my favorite friends remind me of my favorite PLANTS! For instance, I have two upbeat friends, a married couple in Tampa, that are simply FUN to be with. No angst, no existential paralysis, we just laugh so much that when I leave their home my cheeks hurt (facial cheeks, Graig!) from all that laughing....they remind me of my irises and daffodils and sunflowers, cheery flowers that always uplift me and make me smile. I have a close woman friend here in Colorado...we tell each other of our major life events, "good" and "bad", our shifting emotional climates, our passionately held projects, our growth issues, and of course the men in our lives. She reminds me of the heady Old Roses John planted in my yard a while back....reliable, colorful, many-petalled, always life-affirming. Until recently I had a close male friend with whom I briefly shared an unexpected, dramatic midlife love affair....the contrast between the remarkable ease and closeness and contentment we shared then, and the cold distance he has placed between us to prevent intimacy reminds of my big red Oriental poppies....briefly sumptuous, softly petalled and alive with color in June, only to be tattered yellow and brown atrophied stems by August. But at least poppies rebloom annually; he and I likely never will again. I have another Denver friend, an energetic bumblebee of a woman who rarely alights from her frenzied dedication to animal rights and vegetarianism long enough to spend time with a friend. And while she is rarely available for what I consider "close" friendship, she has a kind and generous heart, sharing freely her dumpster-dived treasures AND her all-around enthusiasm...she reminds me of my crocus; fleeting, ephemeral, cheery, and reliable in her own unique way.

The people who each year enter my life as new acquaintances remind me of the annual wildflowers that "appear" in my gardens....unexpected, colorful, sometimes establishing a perennial presence that enriches me. Of course a few turn out to be "weeds"!

Then of course there is my oldest friend, Sally. We met in our senior year in high-school (1970), and while we haven't lived in the same city for nearly 20 years now, we somehow grow together despite the miles...whenever we DO get together, or speak by phone, we simply pick up where we last left off, with no awkwardness or getting reacquainted, just warm, supportive, honest sharing and caring. She is like a reliable old tree, providing sustenance and comfort, like that old mulberry tree beside the Hillsborough River in Sulphur Springs, Tampa that has many times nourished me with its cool shade and ripe fruits. Someday, I bet, the three of us will be together, two white-haired old friends feasting on shared stories and sticky handfuls of purple berries from that old tree. I like that image...three long-lived perennials on the bank of a slow, cool river sparkling in the bright Florida sunshine.

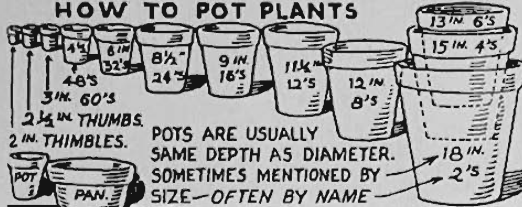


### THE WINGS

The feathers of a bird's wing lie one over the other, like shingles on a roof, and help to form a series of one-way air valves. On the downstroke of a robin's wings (A) the air slots are closed and air cannot slip between the feathers as it can on the upstroke (B).

# HAPPY HOUSE PLANTS

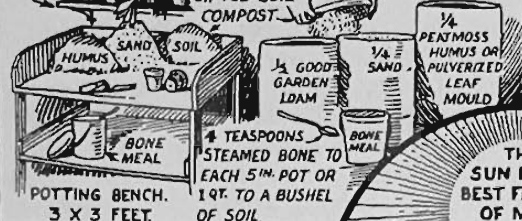
## HOW TO POT PLANTS



POTS ARE USUALLY SAME DEPTH AS DIAMETER. SOMETIMES MENTIONED BY SIZE—OFTEN BY NAME

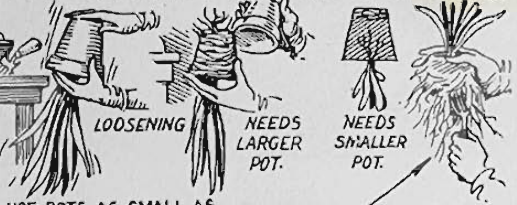
SCRUB OLD POTS INSIDE AND OUT BOIL OR SOAK NEW POTS

HAVE A DRAINAGE SIFTED SOIL COMPOST ADD A FEW LEAVES OVER POTTING TABLE BOTTOM DRAINAGE



POTTING BENCH. 3 X 3 FEET. 4 TEASPOONS STEAMED BONE TO EACH 5 IN. POT OR 1 QT. TO A BUSHEL OF SOIL.

## PROPER ROOTING AND WHEN TO RE-POT



USE POTS AS SMALL AS POSSIBLE—MANY PLANTS BLOOM BEST WHEN SLIGHTLY POT BOUND COMB OUT ROOTS LIGHTLY WITH A FORK BEFORE REPOTTING

## WATERING AND WASHING

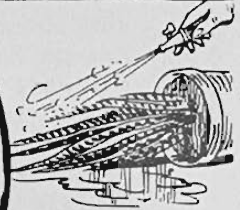
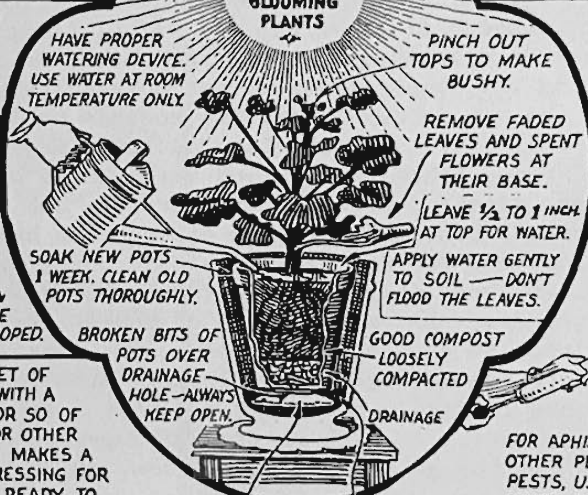


## WHEN AND HOW TO FERTILIZE.

TOO SMALL TO STIMULATE



TOP FERTILIZE ONLY WHEN PLANTS ARE WELL DEVELOPED. A BUCKET OF WATER WITH A POUND OR SO OF SHEEP OR OTHER MANURE MAKES A GOOD DRESSING FOR PLANTS READY TO BLOOM—(APPLY THE COLOR OF WEAK TEA.)



FOR APHIS, AND OTHER PLANT PESTS, USE A HAND SPRAY WITH NICOTINE SOLUTION—

"When weeding, the best way to make sure what you are pulling is a weed and not a valuable plant is to pull on it. If it comes out of the ground easily, it is a valuable plant." Paul Dickson

Taught from infancy that beauty is woman's sceptre, the mind shapes itself to the body, and roaming around its gilt cage, only seeks to adorn its prison. Mary Wallstone Craft 1792

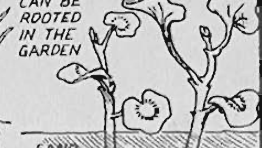
Many indoor gardeners find houseplants frustrating as they watch yet another beautiful newly-purchased specimen either die quickly or, more often, go into a slow, agonizing decline ending in death, despite their best efforts. Sometimes this is simply because the plant was greenhouse grown in ideal conditions, and couldn't endure the shock of moving indoors, or is a variety not suited for indoor culture (mums, most herbs). Sometimes plants are sold at the peak of their life cycle, then soon go into a natural period of dormancy that LOOKS like death (hybrid lilies, amaryllis, cyclamens). Over-watering is probably the leading killer so try a deep initial soak in a sink for 30 minutes, noting the date, then withhold water till the plant starts to wilt...if it takes 6 days to wilt, water every 5 days, and so on. African violets and many succulents get white fuzzy non-moving bugs on their stems called mealybugs, especially in winter...blast them off with a strong stream of warm water from your showerhead. Same goes for spider mites on mini-roses, or aphids on any plant. Lastly, avoid pretty blue "miracle" chemical fertilizers and use Alaska Fish Emulsion, manure tea, or compost tea, or a sprinkle of a 50/50 mixture of Ringer Lawn Restore and kelp meal.

# PROPAGATING PERENNIALS

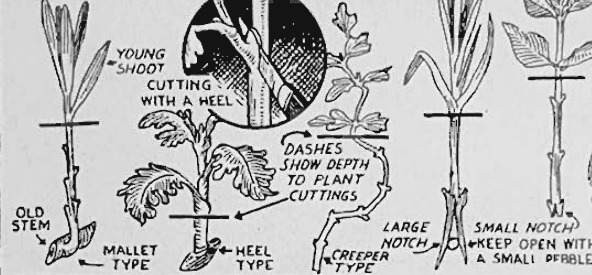
## INCREASING YOUR PLANTS BY LAYERING



## GERANIUM CUTTINGS CAN BE ROOTED IN THE GARDEN



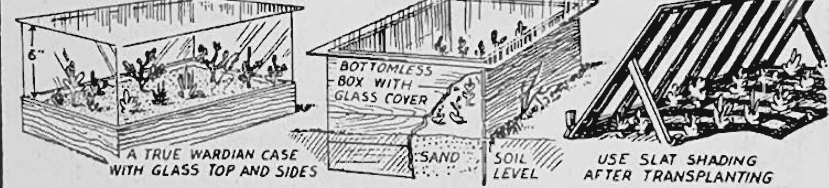
## INCREASING PLANTS BY CUTTINGS



## PROPAGATING CUTTINGS IN A KETTLE



## PROPAGATING BOXES FOR CUTTINGS



Softwood Propagation

Newly-rooted cuttings have delicate roots; feed them a very weak compost or manure tea (the color of VERY weak ice tea) when new leaves completely unfold.

Plants from summer cuttings. While raising plants from seed is the normal, easiest, and most satisfactory way to propagate, it sometimes becomes necessary to propagate by cuttings and root division. Many plants reproduced by seed will not flower true to the color, size, and growth characteristic of the parent plant. This is due to cross pollination or other causes, but cuttings and roots are not so affected and will come true to variety.

If but a few new plants are desired, many of the plants in your garden and rockery can be increased by layering. This is the process of rooting a branch without detaching it from the parent. Many plants propagate themselves by this method.

A branch is notched and this notch held open by a small pebble or by bending the stem. It is then stapled to the ground by bent pieces of heavy wire and well covered with earth. Kept watered, it is severed from the main plant when well rooted. Plants which may be easily layered are dianthus, nepeta, sedum, thyme, veronica, forsythia suspensa, climbing roses, and most other creeping plants.

When making cuttings for propagation cut the shoots from sturdy plants which have finished blooming. Iberis and arabis may be taken with a piece of the old stem (mallet-shaped); other plants, if large enough, may be cut with a heel which is a small oval piece of the covering of the old stem about one-half inch long. This is cut with a straight knife and must not be torn or pulled away from the stem of the new shoot. Roots form very quickly from heel cuttings. Small creeping plants may be cut eight or ten joints long and buried two-thirds. Care must be taken not to get shoots too long as weak leggy plants will result. The best length for softwood cuttings is three to six inches. About half the leaves and all flower buds should be removed, cut carefully without tearing.

Now set the plants about two inches apart each way, carefully label, and water. Seal the top of the box with a piece of glass. Shade the box with paper or cloth and keep closed for about ten days, opening it to give light and fine spray sprinklings only if the top of the sand shows signs of drying out.

When plants show signs of growth, remove the glass but maintain the shade until a good root system is established. Transplant to growing soil composed of two parts of finely sifted garden loam and one part of rotted leaf mould or sedge humus. Be sure to get soil firm around roots. Shade for a day or two and then apply semishade by slatted covering until they can stand full sun.

Hardwood cuttings. Hardwood cuttings are usually taken eight inches long when the plant is dormant, but not during freezing weather. The wood should be one year old, firm, strong, and free of leaves. Each should have two or more eyes or nodes and be plump and thick. Thin branches have little food in them. There should be an eye at the top of each cutting. The soil and care for planting outdoors should be followed substantially as previously described for softwood transplants. All shrubbery should be transplanted several times before placing in permanent location.



NOTE: "Wood's Rooting Compound" contains no artificial fungicides... "Rootone" does.



# AGRIMONY

(Agrimonia eupatoria)



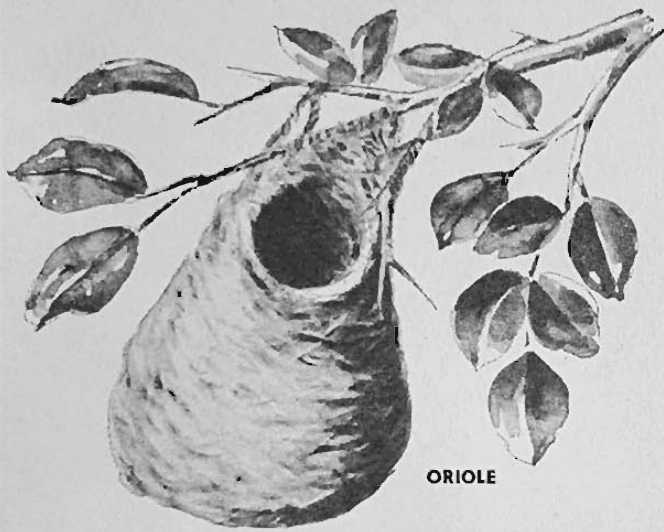
**N**ative to Europe, this perennial herb is a member of the Rose family and has colonized much of the temperate U.S. The upright cylindrical stems bear few side branches but plentiful numbers of compound leaves, each composed of several saw tooth edged leaflets similar to those of a rose but thornless and somewhat hairy. All the plant parts are slightly aromatic, and the small (3/8 inch) yellow 5-petaled flowers, which appear in late summer, have a spicy scent. These blooms are arranged closely on a spike. The fruit that follows is a bristly burr. 600 years ago Anglo-Saxons relied on the astringent properties of a decoction of the leaves, flowers and stems to reduce the bleeding of battle wounds. Singers and public speakers to this day gargle the tea to clear their throats before a performance, as do cold sufferers with sore throats. The tea was also once used as an eyewash to treat conjunctivitis. If consumed it was regarded as an effective treatment for cystitis, diarrhea, and heavy menstrual bleeding.

Propagation is easiest from root divisions in early spring and in the autumn, or by seed. Agrimony is cold hardy to zone 7, tolerates a wide range in soil pH, and prefers drier soils in light shade. The tall graceful plant can be used in the wildflower or herb garden, where it can then be harvested from each fall as a source of a rich yellow natural dye. Look for the plants in spring or fall at local nurseries with good selections of perennials...it may come in 4" pots or in 1 gallon pots. Or purchase the seeds from specialty seed houses like:

J. L. Hudson  
P.O. Box 1058  
Redwood City, CA 94064  
(write to this address for a catalog).

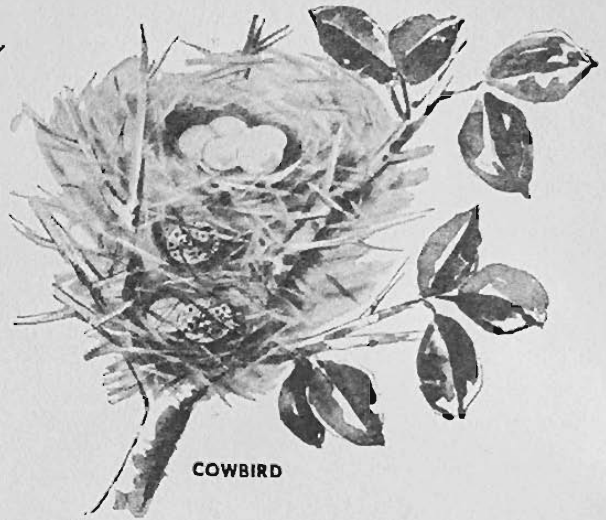
"The weakest creature, by concentrating his powers on a single object, can accomplish something; whereas the strongest, by dispersing his over many, may fail to accomplish anything."  
Thomas Carlyle

## UNUSUAL NESTS



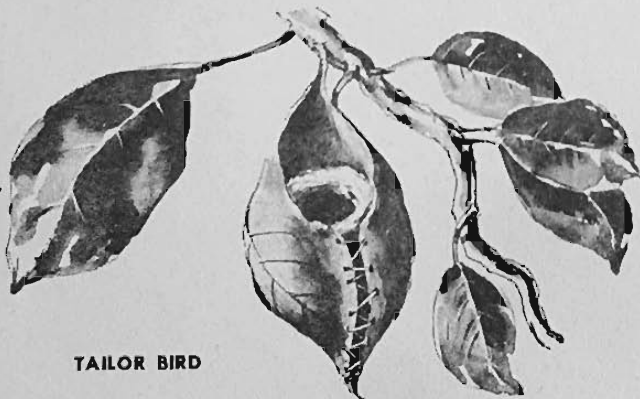
**ORIOLE**

Orioles build dainty nests that are purse-shaped, and hang them from slender, forked twigs.



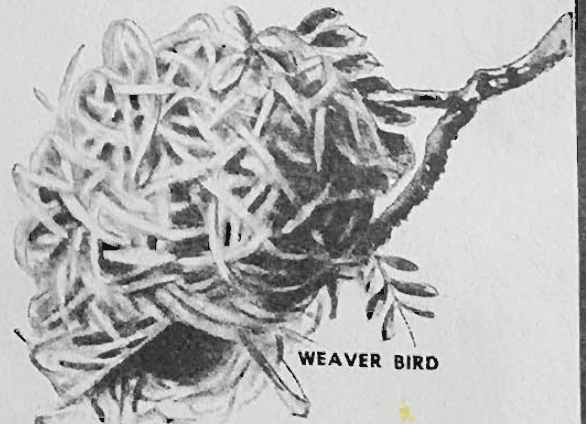
**COWBIRD**

The lazy cowbird lays its eggs in other birds' nests. To outwit it, the owner often builds a false floor over the eggs even if it has to cover its own. Sometimes, such a bird's nest has as many as three stories.



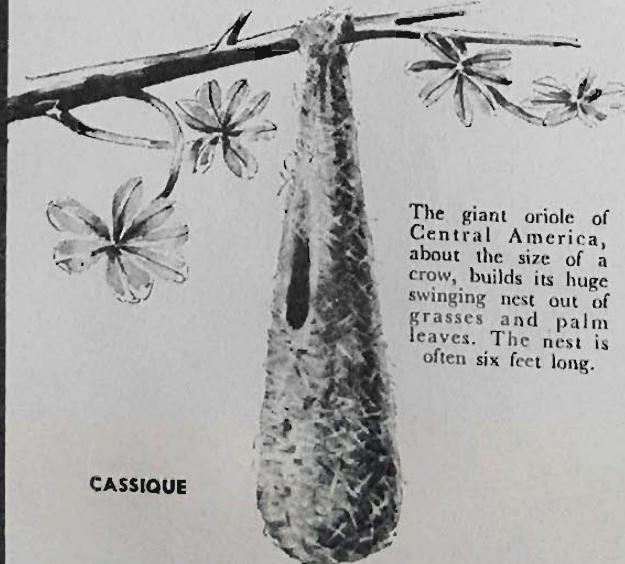
**TAILOR BIRD**

This African and Indian bird makes its nest in large leaves. It sews the edges together with long strips of grass or fibers.



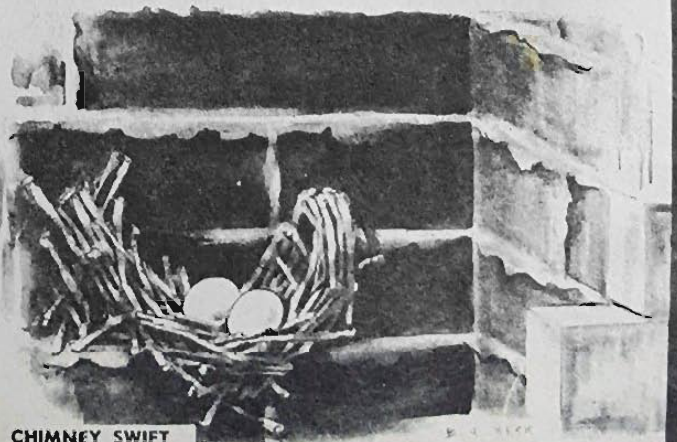
**WEAVER BIRD**

This nest is woven from grass or reeds. The entrance at the bottom leads to the inner chamber where the eggs are laid.



**CASSIQUE**

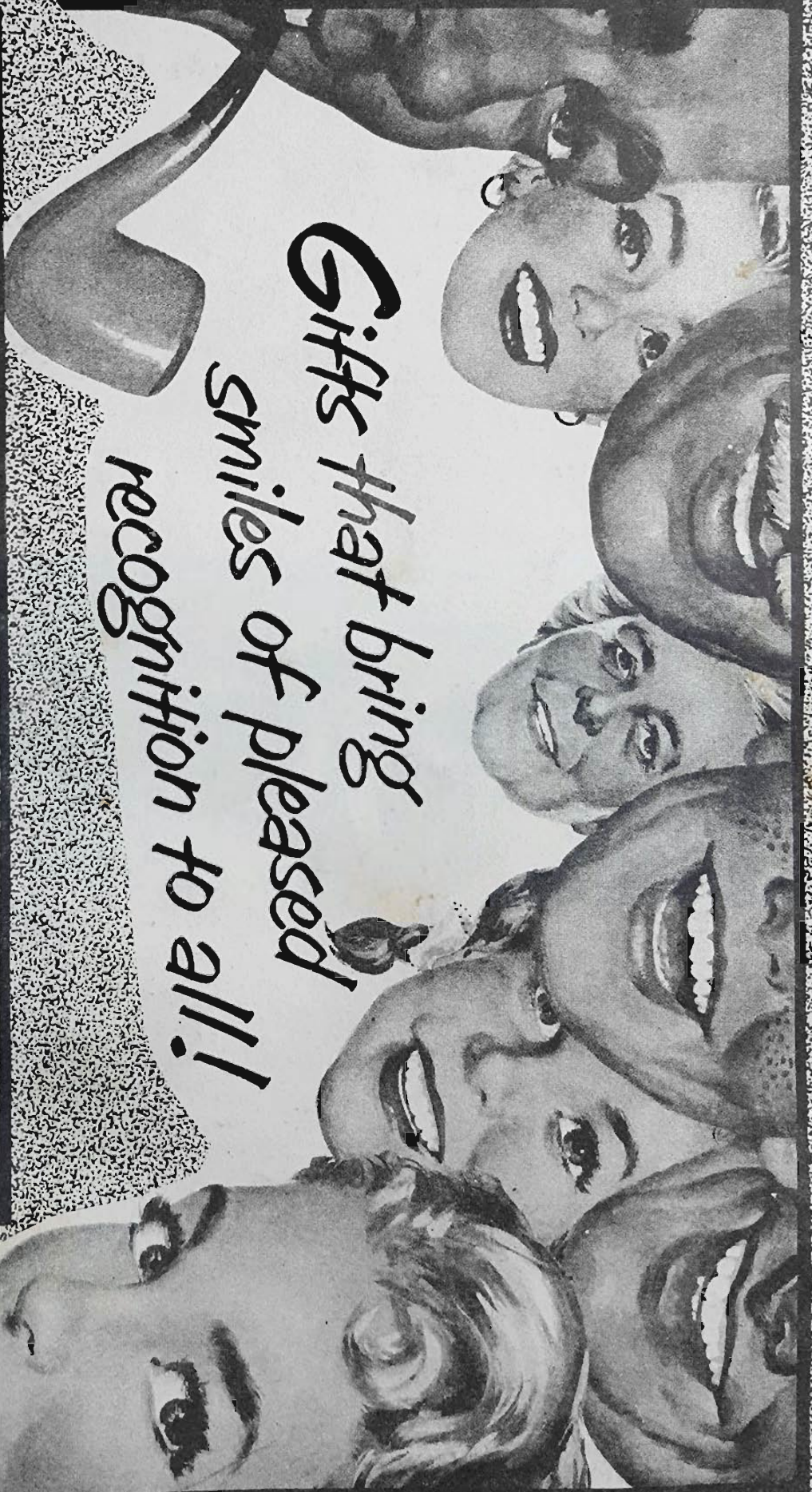
The giant oriole of Central America, about the size of a crow, builds its huge swinging nest out of grasses and palm leaves. The nest is often six feet long.



**CHIMNEY SWIFT**

This saucer-shaped nest is made from tiny bits of dead twigs, glued together with saliva from the bird's mouth.

You owe the World for all you learn; in Payment you should Teach in turn.  
Arthur Guiterman



*Gifts that bring  
smiles of pleased  
recognition to all!*

THIS holiday season please everyone with gift subscriptions to THE GARDEN DOCTOR, the world's most upbeat, offbeat HANDCRAFTED gardening newsletter, EACH ONE hand-signed by editor/publisher John Starnes. Plus they'll FLIP over the 3 SURPRISE PACKETS OF SEEDS inside each Spring & Fall issue of the light-hearted yet information-packed newsletter praised by publications like Utne Reader, Herb Companion, Enviroton, The Tampa Tribune, Westword, East West, Organica, Garbage, Vegetarian Living & more! Your friends and family will LOVE finding it in their mailbox...their smiles of pleased recognition will cleanse your karma for centuries! This remarkable gift costs a MEASLY \$16 per annual subscription, or just \$30 for every 2 gift subscriptions or for each 2 year subscription! Send your steaming check TODAY to: THE GARDEN DOCTOR 1684 Willow, Denver CO 80220. After Nov. 1 send it to THE GARDEN DOCTOR 3315 Ballast Point Blvd. Tampa, FL 33611 c/o The Totz's till April 15, 1996 when John migrates back to Denver.