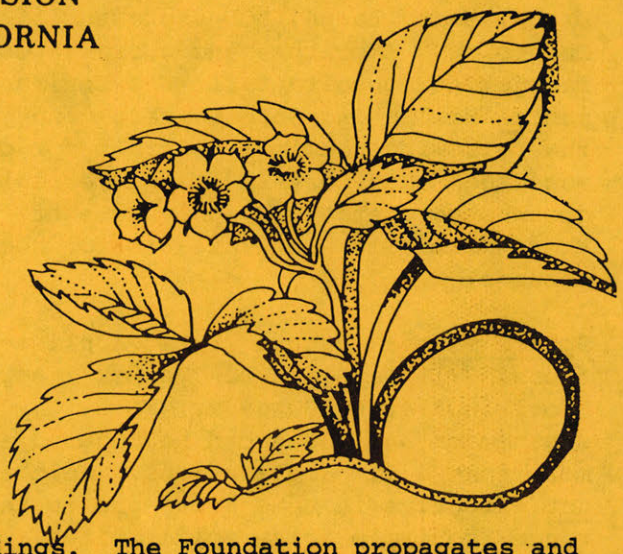
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GARDEN HARVEST: FOOD PRESERVATION WORKSHOP

Dr. George York, U.C. Cooperative Extension Food Technologist, and Evelyn Wunderlich, Home Economist, will be presenting a free workshop on freezing and canning foods here at the Ag Center, 5630 S. Broadway, Eureka on August 15 from 10 a.m. to 3 p.m. They will be demonstrating safe methods; changes have been made in canning time recommendations. This is the place to get all the current information. A sack lunch is suggested (or the deli across the street). This workshop will be useful for both first time food preservers and experienced canners.

HUMBOLDT COUNTY FAIR - AUGUST 8 THRU 17

Entry forms for the Horticulture and Floriculture Divisions are due on July 25. Exhibits are received on various dates in August, look in the Premium Book for full details. The vegetable and deciduous fruit divisions are fun to enter and provide a great educational and inspirational impetus for Humboldt County residents. Please consider entering the fair this year. Under Floriculture you can enter many different plants: cut flowers, arrangements, potted plants and collections of plants. Don't forget the Junior Divisions, kids love to see their vegetables or flowers in the fair, especially with a ribbon on them!

SEEDS WORKSHOP AT AGRICULTURAL CENTER

On August 21 at 7:30 p.m. Forest Shomer, founder of the Abundant Life Seed Foundation, will present a workshop on growing and gathering seed of vegetables, herbs, flowers and wildings. The Foundation propagates and preserves open-pollinated and heirloom strains of garden plants and natives. Everyone welcome.

ARBORICULTURE NEWS

The May workshop on Landscape Tree Care and Weed Control in the Landscape was a great success. Over 50 people attended with the majority being professionally involved in landscape maintenance. Many good ideas were offered for future programs.

I recently received an announcement from the International Society of Arboriculture. They have developed a Certification Program for Arborists and Tree Workers. The purpose of the program is to establish a meaningful standard of quality in tree care and to provide the public with a means for identifying competent arborists. To become a Certified Tree Worker you must: have 18 months experience, pass a written exam, pass a practical exam, sign the ISA code of ethics and renew every 3 years by attending 18 hours of approved educational sessions. To become a Certified Arborist you must: have 36 months experience, pass a written exam, sign the code of ethics and renew every 3 years with 36 hours of educational sessions. U.C. Cooperative Extension can offer approved classes if some arborists in the area get certified and need these classes. Requests for copies of the application form and questions about the program can be made to Denice Froehlich, Chair of the ISA Certification Committee, P.O. Box 424, St. Helena. (707) 963-7578.

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Co-operative Extension Work in Agriculture and Home Economics, U.S. Department of Agriculture, University of California and Humboldt and Del Norte Counties, co-operating

GREENHOUSE PEST CONTROL

Dr. W. Harry Lange, UCD Professor of Entomology, Emeritus, and current pest management consultant for UCD Environmental Health and Safety, recommends the following chemical controls for common greenhouse pests: (for commercial greenhouse operations, only some of these materials are available for home grounds).

Spider mites: Pentac®; two applications, 7-10 days apart. Vandex®; apply 8 oz. 50WP every 30 days. Note: Chrysanthemums and roses can be injured at more than 4 oz. applications. Kelthane®; not effective in some areas due to resistance (controls false spider mites, only).

Cyclamen mites: Thiodan®; 2 applications, 7-10 days apart.

Thrips: Orthene®; apply once every 30 days. Cygon®; watch for injury. Temik®; for potted specimens. Lannate®; local needs registration. Malathion®; occasional use only. Mavrik®; not effective against resistant strains.

Aphids: Orthene®; apply once every 30 days, 6-8 oz. 75% SP Orthene®/100 gals. Diazinon®, Malathion®, Thiodan®; effective in some areas.

Soil nematodes: Temik®; effective. Vydate®; drench somewhat effective (use of Nemagon® and Fumazone® on roses is withdrawn).

Cyst and root lesion nematodes: Nemacur®; promising but not yet registered.

Mealy bugs: Bydate®; read label. Temik®, Malathion®, Diazinon®; repeat application. Cygon®, Dycarb®; sometimes effective.

White flies: Resmethrin; best control (use spray). Sumithrin; spray also controls. Permethrin; avoid eyes! Other possibilities - weed control, trapping, Encarsia parasite.

Leaf miners: Penncap-M® and Permethrin; best control (SLN, controls adults). Penncap-M®; 1 qt/100 gal., SLN controls mining larvae. Trigard®; controls L. trifoli on Chrysanthemums, lettuce, and celery (not registered); Avermectin; excellent control but not registered. Diazinon®; not effective on L. trifolii.

Leaf hoppers: Lannate®; SLN. Malathion; effective in some areas.

Fungus gnats: Enstar®; effective. Pyrethroids; effective on adults. Diazinon®, Lindane, Bendiocarb; drenches effective on larvae.

Slugs and snails: Metaldehyde; bait. Mesurol®; bait or spray.

Scales: Diazinon®, Sevin®, Cygon®, Enstar®, and Dycarb®.

Brachyrhinus weevils: Neoaplectana carpocapsae (predacous nematode) for larvae control. Orthene and Lindane; ground spray controls adults. Furadan®; long soil residual.

Avoid Pests!

-- Always plant clean seed, seedlings, and stock plants.

-- Practice effective weed control measures (weeds harbor spider mites and thrips).

-- Avoid calla lilies (source of thrips and wilt).

-- Practice sanitation measures throughout greenhouses.

-- Follow recommended cultural practices for all crops to encourage healthy specimens better able to resist pest infestations.

-- Sterilize implements before use on another crop to avoid contamination.

-- Watch for yearly symptoms of infestations and remove infected plants.

Pesticide Tips

Here are tips for increasing pesticide efficiency:

-- Early pest detection and correct diagnosis is essential.

-- Study the life cycle of the disease or pest causing observed symptoms. Life cycles largely determine timing and waiting periods between applications.

-- Follow label directions exactly, and never apply a higher than labeled rate. Read label restrictions and make sure chemical is labeled for the crop in question. Some may require permits.

To simplify information, trade names of products have been used. No endorsement of named products is intended, nor is criticism implied of similar products which are not mentioned.

PLUM POCKET: A FUNGAL DISEASE

This spring I observed "plum pocket" disease on several plum trees in Eureka. Caused by the fungus Taphrina pruni this disease causes young fruit to enlarge abnormally resembling bladder-like objects lacking pits and having a leathery flesh. The surface of infected fruit is covered with a whitish coating and the fruiting bodies (asci) of the fungus can be seen with a hand lens. Also known as "bladder plum," "mock plums" or "fools" this disease is in the same genera as peach leaf curl (Taphrina deformans). It is not common in California plum districts but does show up occasionally. The disease is common in Europe. Our humid spring weather contributes to many fungus disease problems. The exact life cycle has not been studied in detail but infection occurs as blossoms open. The fungus rests over winter on the twigs and buds as asexual spores (conidia) similar to peach leaf curl disease. Fungicide sprays should be applied in early spring at bud swell and blossoms should be protected. Brown rot is another fungal disease extremely prevalent in wet springs. It kills expanding buds and blossoms. Many people think you cannot spray during bloom but this is the exact time you want to apply fungicides to protect blossoms. Fixed copper, captan, benlate and Funginex are all fungicides useful in controlling diseases. If you had problems with fungus diseases this spring, prepare for next year by learning about these diseases and their control. I have information I can send you.

BIRD PESTS

Birds are frequent, usually welcome, visitors to gardens and most of the time they pose no threat. Problems occur when they turn your garden into their cafeteria, feeding on newly sprouted seedlings, eating buds, flowers, and fruits. Take preventative action, especially if you've had problems with birds before. Change your garden or yard to make it less desirable to birds. For instance, if you notice they are attracted to a brushpile or clothesline, remove or change them to make them less desirable. Lightweight plastic netting over seed beds, plants or trees can protect your crop. It should be fitted closely to the ground with stakes to prevent them from entering.

Dangling pie pans, flashing lights, scarecrow, and artificial owls or snakes work some of the time to frighten off birds. Change their position often so they don't get used to them. You can trap starlings, house sparrows and pigeons without a permit but trapping any other species requires a permit from the U.S. Fish and Wildlife Service. Toxic baits and repellents are not recommended for home garden bird problems. Help in identifying birds and controlling damage is available in a 92 page book "Wildlife Pest Control Around Gardens and Homes." Besides bird control the book has chapters on deer, squirrels, mice, gophers, and rabbits. It has color photographs and is available from U.C. Cooperative Extension Publications, 6701 San Pablo Avenue, Oakland, CA 94608-1239. $8.00 covers the book, tax and postage.

INSECT REPELLENTS FROM PLANTS

Yih-Shen Hwant, University of California, Riverside.

The plant kingdom has been one of the sources for obtaining insect repellents. The most prominent examples are pyrethrum, dessis, nicotine, and oil of cetornella, which exhibit not only repellent activity but also insecticidal properties.

Pyrethrum represents the dried flowers of Chrysanthemum cinerariaefolium Vis. Its insecticidal activity is attributed to the action of six constituents, pyrethrin I, pyrethrin II, cinerin I, cinerin II, jasmolin I, and jasmolin II. The highly effective insecticidal properties of pyrethrin have overshadowed its repellent qualities which are of considerably higher order. Pyrethrum has been reported to repel full-grown codling moth larvae, Glossina palpalis, and Culicoides. It is said to prevent biting insects from biting but not to prevent them from settling on the skin, thus indicating it is a gustatory repellent.

Derris is a generic term for the roots of species of Derris, Lonchocarpus, Tephrosia and Mundulea, in which the toxic principles are rotenone and rotenoids. Nicotine has been isolated from at least 18 species of Nicotiana, among which N. tabacum and N. rustica are the most common. Although both derris and nicotine are known to repel insects, their repellent properties are not adequately studied.

Oil of citronella has been used as a mosquito repellent since the 19th century; however, in our studies it was found to be ineffective against Culicoides and Musca domestica. It is a volatile oil obtained from fresh grass of Cymbopogon (Andropogon) nardus, containing about 60 percent geraniol, about 15 percent citronellal, 10-15 percent camphene and dipentene, and small quatities of linalool and borneol.

Other essential oils are also found to be repellent to insects. The essential oil of Huon pine wood, Dacrydium franklini, and the leaf oils of Backhousia myrtifolia, Melaleuca bracteata, and Zieria smithii are repellent to mosquitoes, March flies, and sand flies.

The essential oils of Eucalyptus and Caryophyllum have been reported to repel several species of mosquitoes.

a-Pinene, obtained from the oil of turpentine, repels pine bark beetles. A repellent for the adult boll weevil, Anthonomus grandis, has been obtained from the volatiles of cotton seedlings and squares. Nepetalactone, the active principle of catnip (Nepeta cataria) responsible for the attractiveness of the plant to certain species of the cat family, has been found to be an insect repellent.

Recently, we began conducting a research program concerning insect repellents of plant origin. The plant used in our study is Artemisia vulgaris L. (Compositae: Anthemideae).

A. vulgaris is an aromatic plant with a worldwide distribution. In China, it is used in the traditional herb medicine. Old leaves of A. vulgaris are dried and made into a moxa which is used as a cautery by being ignited on the skin. Its young leaves can be added to rice cakes or dumplings for its fragrance. In this regard, this plant might not have any contact or oral toxicity in humans.

Sincerely,

Deborah Giraud

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