



Ka Lono Pua

"The Flower News"

Vol. IX No. 1, February 2002

Cooperative Extension Service Oahu

County

Opportunities for Growth and Action

It is easy to sit back and wring our hands about the state of the world, country, state, or industry. But it is up to each of us to change things for the better. Getting involved is time consuming, energy-sapping and sometimes frustrating. But by taking action YOU have the power to change those things you feel needed changed.

Seize the opportunity to explore new ideas, ways of doing things, or projects. You are then better prepared for taking on new challenges. Better prepared means better results.

This issue of "Ka Lono Pua" features a number of educational opportunities that growers can use to their advantage. They are not as easy as sitting back in your recliner, but the reward is worth the effort.

"...You may be disappointed if you fail, but you are doomed if you don't try." - Beverly Sills

In This Issue...

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- ◆ Mealybugs Moving In?
- ◆ Plant Tour Days in California
- ◆ SAF Insect & Disease Management Conf.
- ◆ America in Bloom Campaignand more

Future Happenings

- Feb 6 – 10 2002 Northwest Flower & Garden Show, Seattle, WA
- Feb 9 Plant Sale, Urban Garden Center, Pearl City
- Feb 14 St. Valentine's Day
- Feb 18 Presidents' Day
- * Feb 20-22 Plant Tour Days, San Diego, CA
- * Feb 23 Native Hawaiian Plant Workshop & Plant Sale, Ho'omaluhia Bot. Gard.
- * Feb 24-26 SAF's 18th Annual Conference on Insect and Disease Management on Ornamentals, San Diego
- Mar 1- 4 Miami International Orchid Show
- Mar 2-4 Hawaii Orchid Growers Association Conference, Hilo
- Mar 9-15 International Protea Association Conference - Maui
- Mar 16-18 Kunia Orchid Show
- Mar 17 St. Patrick's Day
- Mar 20-24 San Francisco Flower and Garden Show, Cow Palace
- Mar 21 Phalaenopsis Orchids Class - Dr. Yoneo Sagawa – Lyon Arboretum
- * See Newsletter for details.

“America In Bloom” Recruiting U.S. Cities

America In Bloom (AIB) is a national beautification program committed to fostering civic pride, environmental responsibility and beautification. It uses community participation and the challenge of a friendly competition between participating communities across the country.

AIB was developed from Canada’s “Communities in Bloom”. The Canadian program has grown from 29 communities in 1995 to over 400 in 2001, including, for the first time, four American communities: Coeur d’Alene, Idaho; Monroe County, New York; Portland, Maine; and Stratford, Connecticut.

Rewards and recognition for floral displays, landscapes, turf and open spaces, urban forestry, community involvement, heritage conservation, environmental awareness and tidiness will be awarded. Based on a marking grid, judges assign points for effort displayed by a community in the above 8 criteria. The communities are then awarded a “bloom rating” based on their total score. Although winners are announced in each population category, every municipality wins just by involving its citizens in a fun and rewarding process of continuous improvement. Participants are recognized at an annual awards ceremony.

Cities are now entering the national beautification campaign and contest. The goal of AIB is to have 30-50 cities registered by March 31. Cities already registered include Des Moines, Iowa and Modesto, Calif. This is the 1st year the U.S. has held the contest. AIB is finalizing a symposium to teach parks and grounds managers how to use floriculture industry products. The contest awards ceremony and educational symposium are scheduled for Oct. 10-12 in Washington, D.C. Promotional materials are available: aib@ofa.org; <http://www.americainbloom.org>

Floriade 2002

Floriade 2002 International Horticulture Extravaganza will take place in Holland from April 6 to October 20. This fifth Floriade Exhibition is the equivalent of a flower “World’s Fair” and is held in Holland once every 10 years. It is being held near the city of Haarlemmermeer. The main entrance to the 160-acre park is the village of Vijfhuizen – don’t ask me to pronounce it. The village is 15 minutes from Schiphol International airport, the main airport of Amsterdam and The Netherlands.

The exhibition will have more than 300 national and international exhibits. Part horticultural tourist attraction and part commercial and industrial exposition, it is expected to draw more than three million visitors. The list of countries participating in Floriade 2002 include Germany, France, Spain, Italy, Russia, South Africa, Columbia, United States, China, Japan, Thailand and many others.

Design of the park was done by Niek Roozen and construction was started in 1996. A long valley with a central lake dominates one part of the park. Half of this valley is covered by a huge glass roof. The glass canopy measures 100 by 278 meters or about three football fields. It shelters an amazing indoor landscape. Numerous varieties of evergreen conifers up to 6 or 7 meters tall form a green backdrop to the colorful displays in the foreground. The 30,000 square meter exhibition space will be covered with more than 19,000 solar panels. The solar power unit at Floriade 2002 will have a capacity of 2.3 MW, enough for all the park’s energy needs while the Floriade is open.

For more information about the amazing details of this exposition, visit the floriade 2002 website at www.floriade.com.

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“Trust yourself. You know more than you think you do.”

- Benjamin Spock, MD

# Mealybugs Moving In?

In the past several months, mealybugs have been causing a lot of problems for ornamental growers. Mealybugs are soft-bodied insects that often inhabit close, tight spaces like leaf axils, leaf sheaths or root balls. There are at least 21 different species of mealybugs in Hawaii, seven of which are root mealybugs. Some of the main floriculture mealybugs and their hosts are listed in Table 1.

They are tenacious and cause a number of problems for growers. They use their piercing-sucking mouthparts to feed on plant sap, which causes yellowing, wilting and stunting of the plants. In addition they can transmit a number of plant diseases. Mealybugs often exude a sweet, sticky “honeydew” that allows sooty mold fungi to grow on the plants. And finally mealybugs are a quarantine pest and reduce salability.

Sometimes mealybugs form an association with ants that groom and protect them. In return the mealybugs supply the ants with honeydew which is harvested and taken back to the nest.

To control mealybugs there are a number of things that can be done before resorting to chemical pesticides. Make sure all incoming plant material is free of mealybugs by carefully visually inspecting them. Check the roots for signs of root mealybugs. Remove plant debris, old leaves, weeds and heavily infested plants from the growing areas.

Monitor their populations by examining susceptible plants on a weekly basis. Check under leaves and in leaf sheaths. Search the roots for root mealybugs as well. Watch for infestation symptoms such as sooty mold, reduced plant vigor and leaf yellowing. It is much easier keeping a lid on a small population than trying to bring a population explosion under control. If a few plants are involved, a strong spray of water

can be used to dislodge mealybugs, but this is not practical for heavy infestations.

Controlling the ants can go a long ways in reducing the spread of mealybugs and allowing other organisms like the mealybug destroyer and the predatory lady beetle to bring some control to the mealybug population. Unfortunately, we cannot bring into Hawaii some of the natural enemies that are successful in other areas in controlling mealybugs.

Because the white waxy coating is water repellent, many insecticides are not effective in controlling mealybugs. Often the young crawler stage does not have this protection and therefore is the most susceptible stage. Unfortunately, they are very small and generally go unnoticed until a large outbreak occurs.

When using insecticides, spreader-stickers may help with improved penetration and coverage. Remember, when using contact pesticides good coverage is essential. However, that is difficult to obtain since the mealybugs are generally located in inaccessible areas. Systemic insecticides will kill actively feeding stages. Enough chemical must be translocated to the feeding site for them to work, and remember they don't work on eggs or other non-feeding stages.

For root mealybugs hot water dips can be used on a few foliage plants. It has been shown that insecticide dips and drenches can also be effective in controlling root mealybugs. Test a few plants first before treating the whole crop.

Table 2 lists some of the insecticides that are labeled for mealybug control. Be sure to read the label and follow the directions. Make sure the formulation you use is permitted in your situation and on the crop you are treating.

Table 1

|                                                          |                                                                  |                                                                                         |
|----------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Citrus mealybug                                          | <u>Planococcus citri</u>                                         | Ginger, Gardenia, Fuchsia, Maranta Stephanotis, Foliage Plants, and a number of others. |
| Long-tailed mealybug                                     | <u>Pseudococcus longispinus</u>                                  | Orchids, Heliconia, Bromeliads, Ginger, Hibiscus, Gardenia                              |
| Pineapple mealybug                                       | <u>Dysmicoccus brevipes</u>                                      | Bromeliads, Hibiscus                                                                    |
| Hibiscus or pink mealybug                                | <u>Maconellicoccus hirsutus</u><br><u>Nipaecoccus viridis</u>    | Hibiscus<br>Chrysanthemums                                                              |
| Gray Pineapple mealybug                                  | <u>Dysmicoccus neobrevipes</u>                                   | Tuberose                                                                                |
| Jack Beardsley mealybug<br>once known as banana mealybug | <u>Pseudococcus jackbeardsleyi</u><br><u>Pseudococcus elisae</u> | Ginger, Anthuriums, Orchids, Hibiscus, Aglaonema, Dieffenbachia                         |
| Rhizoecus root mealybug                                  | <u>Rhizoecus hibisci</u>                                         | Palms, Calathea                                                                         |

Table 2

| <u>Class</u>             | <u>Chemical Name</u> | <u>Products</u>              | <u>Reentry Interval (REI)</u> | <u>Signal Word</u> |
|--------------------------|----------------------|------------------------------|-------------------------------|--------------------|
| Organophosphates         | Acephate             | Orthene, Pinpoint            | 24                            | Caution            |
|                          | Chlorpyrifos         | Duraguard                    | 12                            | Caution            |
|                          | Diazinon             | Knox-Out                     | 12                            | Caution            |
| Carbamates               | Bendiocarb           | Turcam R, Closure            | 12                            | Warning            |
| Pyrethroids              | Bifenthrin           | Talstar, Attain              | 12                            | Caution/Warning    |
|                          | Cyfluthrin           | Decathlon                    | 12                            | Caution            |
|                          | Fenpropathrin        | Tame                         | 24                            | Danger             |
|                          | Fluvalinate          | Mavrik Aquaflo               | 12                            | Caution            |
|                          | Lambda-Cyhalothrin   | Topcide                      | 24                            | Warning            |
|                          | Permethrin           | Astro                        | 24                            | Caution            |
| Chloronicotinyls         | Imidacloprid         | Marathon                     | 12                            | Caution            |
| Insect Growth Regulators | Azadirachtin         | Azatin Neemazad Ornazin 12   |                               | Warning            |
|                          | Kinoprene            | Enstar II                    | 4                             | Warning            |
| Biologicals              | Beauveria bassiana   | Naturalis-O, Botaniguard     | 4                             | Caution            |
| Oils/Soaps               | Horticultural oil    | Ultrafine Spray Oil          | 4                             | Caution            |
|                          | Insecticidal soap    | Insecticidal Soap, M- Pede12 |                               | Caution            |

Disclaimer: Mention of a product name does not imply endorsement or recommendation by the Cooperative Extension Service, College of Tropical Agriculture and Human Resources, University of Hawaii or the United States Department of Agriculture and does not imply its recommendation to the exclusion of other products that may be suitable.

## Insect and Disease Management Conference

The Society of American Florist's (SAF) 18th Annual Conference on Insect and Disease Management on Ornamentals will be held Feb. 24-26, 2002 at the San Diego Marriott Mission Valley in San Diego, California. A host of presentations are planned for the 3-day conference.

Sessions will focus on: Spider Mites, Downy Mildews, New and Emerging Diseases and Insects, Leafminers, Weed and Nematode Identification, Disease Diagnostic Kits, Scouting Tools and Techniques, How to Start a Biological Control Program, Whiteflies and Whitefly Transmitted Diseases, Bacterial Diseases, Mealybugs, Western Flower Thrips, Rusts, Fusarium Diseases and more.

Speakers include the Who's Who of the ornamental disease and insect worlds. Ample opportunity is given to talk to these experts on a one-to-one basis during the conference.

Hawaii has approved some of SAF's program for credit toward pesticide applicator recertification. A number of exhibits will display the latest application equipment and chemical and biological control products. Greenhouse tours are scheduled at Dramm and Echter, Herb Thyme, Flower Fields - Mellano & Company, and Weidner's Gardens. <http://www.safnow.org>

For more information and registration procedures see: [http://www.safnow.org/meetings/pest\\_management.cfm](http://www.safnow.org/meetings/pest_management.cfm) or contact:

The Society of American Florists  
1601 Duke Street  
Alexandria, VA 22314  
Phone: (703) 836-8700  
Fax: (703) 836-8705

## Plant Tour Days of Southern California

The wholesale growers and greenhouse operators who are members of the San Diego County Flower & Plant Association are individually sponsoring the Southern California Plant Tour Days, February 20 - 22, 2002. The range in products and areas has expanded from previous years.

This year there will be open houses in Orange, Los Angeles and Ventura Counties as well as San Diego. The growers specialize in a wide assortment of plants that include: bedding plants, bromeliads, cactus, indoor foliage, palms, poinsettias, orchids, topiaries, tropical foliage and others.

The self-guided tours are in easy driving distance from most southern California airports. To date there are 27 participating growers. Best of all the tour is free of charge to qualified plant buyers. There is an opening night reception on Wednesday, February 20<sup>th</sup>.

For more information contact Alissa Adams at (760) 431-2572; FAX: (760) 431-8834; e-mail: [flowerandplant@nctimes.net](mailto:flowerandplant@nctimes.net); or see: [www.flowerandplant.org](http://www.flowerandplant.org).

For more information and registration on-line see: <http://www.planttourdays.org/>

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"Mommy," the little girl asked, "do all fairy tales begin with 'Once upon a time'?"

"No, dear," she replied. "Sometimes they start with 'Honey, I'll be working a little late at the office tonight.'"

-Bloomer, Wis., Advance quoted
by Tina Maples
in *Milwaukee Journal*

Andean Trade Preference Act Expires

The Andean Trade Preference Act (ATPA) expired Dec. 4. Consequently, floral importers must pay duties on flowers coming into the U.S. from Colombia, Ecuador, Bolivia and Peru. Duties are 6.8% on roses and 6.4% on mums, standard carnations, orchids and anthuriums. Legislation to extend ATPA is part of the economic stimulus package that Congress is wrangling over. The Bush administration has made ATPA renewal a strong priority and there is strong congressional bipartisan support for it. ATPA allowed flowers from those four countries to be shipped duty free into the U.S. ATPA was meant to hinder growth of crops related to drug trafficking and encourage alternative legitimate agricultural crops.

President Bush is urging the Senate to approve trade promotion authority so he can negotiate trade agreements that Congress would vote on without adding amendments. The House approved the legislation by one vote. Formerly called "fast track" legislation, this presidential power lapsed in 1994 when President Clinton tried to retain trade promotion authority.

Floriculture Funding Increased

Both the U.S. House and Senate passed the final USDA budget, which included a \$800,000 increase for floriculture. The Floriculture and Nursery Research Initiative's budget for 2002 will be \$5.5 million. A related USDA research project also received additional money. Most of the money will be used by USDA-ARS and land-grant university researchers. Some of the projects involving floral and nursery crops, include methods for reduction of chemical use, improving postharvest shelf life, development of insect- and disease-resistant plants and improving environmental quality.

California Introduces New Fertilizer Regulations

The toughest fertilizer standards in the nation became effective in California on January 1st. The new standards, based upon scientific study, follow a process that included public hearings and thorough input from environmental interests and the manufactured fertilizer industry.

The new standards will help ensure that levels of certain heavy metals will not pose a risk to people or the environment.

California Department of Food and Agriculture (CDFA) performed a study of manufactured fertilizers in the 1990's that revealed potentially high levels of heavy metals. However, by 1999 and 2000, follow-up studies found almost 100 percent compliance with the new 2002 standards as fertilizer manufacturers made adaptations in anticipation of these regulations.

The new standards established allowable levels of heavy metals permitted for inorganic fertilizer products. See: <http://www.cdfa.ca.gov>.

Fungicide Is Labeled for Outdoor Nurseries

In the last part of 2001 the Environmental Protection Agency (EPA) granted Syngenta a new label for Fludioxonil (Medallion[®]). The new label allows the use of the fungicide in outdoor nurseries and on landscape ornamentals in addition to its previous use in greenhouses.

Fludioxonil carries a "Caution" warning word and a 12 hour Re-entry Interval (REI). A large number of ornamentals are listed on the label including Carnation, Chrysanthemum, Geranium, Gerbera Daisy, Poinsettia, Rose, and Vinca. It can be used for Alternaria, Botrytis, Cylindrocladium, Cercospora, Fusarium and Rhizoctonia.

Native Hawaiian Plant Workshop

A Native Hawaiian Plant Workshop will be held on Saturday, February 23, 2002 at Ho'omaluhia Botanical Garden in Kaneohe. The workshop will begin at 8:30 a.m. The topics include:

Lei Making with Native Hawaiian Plants: Dr. Paul Weissich and Marie McDonald will present a sneak preview of their book Na Lei Makamae – the cherished lei of old Hawaii.

Propagation and Care of Native Hawaiian Plants by Heidi Bornhorst, Director of Honolulu Botanical Gardens. Learn helpful methods for successful propagation of native plants gained from years of experience.

Landscaping with Native Hawaiian Plants: Landscape Architect Jason Umemoto and Landscape Designer Leland Miyano will offer ideas for landscape design and Management for your own landscape efforts.

Between 12:30 – 3:00 p.m. a mini plant sell, open to the public will be conducted. Fee for the workshop is \$25 for members of “Friends of Honolulu Botanical Gardens” and \$30 for non-members. (\$10 additional for Hawaiian Lunch)

Call 537-1708 for more information and a registration form.

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Question: "How many bureaucrats does it take to change a light bulb?"

Answer: "Two."

One to assure us that everything possible is being done while the other screws the light bulb into a water faucet."

*-Voice for Health*

## APHIS Tightens Enforcement

The United States Department of Agriculture – Animal and Plant Health Inspection Service (USDA-APHIS) recently announced that they will begin “consistently and routinely enforcing an existing requirement that a phytosanitary certificate of inspection, or similar documentation approved by USDA, accompany” restricted articles. Nursery stock plants and other propagative plant material are specifically mentioned.

Certain greenhouse-grown and stickered plants or specially certified seeds from Canada, that are offered for importation into the US under our foreign quarantine regulations for nursery stock, plants, roots, bulbs, seed and other plant products are exempted.

The action, which began January 22, 2002, was made to reduce the risk of introducing plant pests that could severely damage agricultural production. It was taken in light of the increasing amount of nursery stock, plants, and other propagative material being imported to the US.

Phytosanitary certificates are recognized as an internationally accepted form of pest risk management. The phytosanitary certificate documents the origin of the shipment and confirms inspection in the country of origin by a member of that country’s national plant protection organization. The certifying country usually charges a fee for providing these certificates.

For more information contact the USDA-APHIS office at the airport at 861-8492 or see: <http://www.aphis.usda.gov/ppd/rad/webrepor.html>

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Every exit is an entry somewhere else.

- Tom Stoppard

Agricultural Statistics To Think About

Every year the USDA surveys floriculture growers with at least \$10,000 in wholesale sales in 36 states. After looking over the data for the year 2000, a number of trends are evident. Over all the floriculture industry grew by 6% in sales dollars – the highest rate for over a decade.

The number of potted flowering plants sold has stayed relatively level from 1992 with the average being 238.7 million units. The largest annual fluctuation has been less than 5% from this number. On the other hand sales in dollars has steadily increased by 21% over the same time interval. This is due in part to the changing numbers of various types of potted flowering plants. The sales of azaleas, chrysanthemums, orchids and poinsettias were up. While African violets and Easter lilies were down. Cyclamen and kalanchoes were dropped from the survey, while potted roses and spring flowering bulbs were added.

Poinsettias continue to dominate the potted plant market with 27.2% of the sales and 30.4% of the dollars. Pot mums were second in sales with 10.4%. Orchids however with only 4.4% of the sales (seventh) were second in dollars with 12.8%.

Cut flowers represented only 10.6% of the floriculture market, which was a drop from 11.4% the previous year. Roses continue to be the leader in cut flowers with 16.2% of the sales. Lilies are second with 13.7% and gladiolas is third with 7.5%. All types of orchids combined comprise 1% of the sales of cut flowers behind, snapdragons, tulips, chrysanthemums, gerberas, iris, lisianthus, alstromeria and carnations.

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Perseverance is not a long race; it is many short races one after another.

- Walter Elliott

## “Ka Lono Pua” Goes Electronic

Because the cost of mailing out “Ka Lono Pua” is high in regards to printing, producing and posting, we will happily e-mail copies to those that have access to e-mail.

If you would like to receive “Ka Lono Pua” by e-mail, contact us so we can add your address to our listings. If you don’t have e-mail or we don’t know what it is, you will continue to receive a regular copy of “Ka Lono Pua.”

If you have any questions or suggestions, give me a call at 622-4185, Tuesdays and Thursdays or e-mail me at [mersino@hawaii.edu](mailto:mersino@hawaii.edu).

Mahalo!

Edwin F. Mersino  
County Extension Agent  
Agriculture Program

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Income tax returns are the most imaginative fiction being written today.

- Herman Wouk

The government deficit is the difference between the amount of money the government spends and the amount it has the nerve to collect.

- Sam Ewing

Success is how high you bounce when you hit bottom.

- Gen. George Patton