

NEWSLETTER

Foundation Plant Materials Service University of California, Davis

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National Grapevine Importation and Clean Stock Facility

In April 1995, FPMS hosted an Open House to dedicate the National Grapevine Importation and Clean Stock Facility. Construction of the state-of-the-art facility was financed by a combination of Federal funding through USDA-CSRS, UC matching contributions, and support from the California Fruit Tree, Nut Tree, and Grapevine Improvement Advisory Board (IAB). The 15,620 square foot complex includes laboratories, business offices, screen houses and greenhouses to detect diseases and to produce healthy plants. The modern laboratory has allowed expansion of existing services, and space to conduct research for improving disease detection and elimination technology. Tissue culture rooms and computer-controlled growth chambers make it possible for FPMS to provide quality services in areas that were never possible in the past, as well as grape disease elimination services for the first time in over ten years. FPMS continues to maintain and distribute disease-tested propagating material of grapes, deciduous fruit and nut trees, strawberries, and roses.

Message from the Director Dr. Deborah A. Golino

This is our first newsletter since I began last fall in the new position of Director, Foundation Plant Materials Service. It has been an exciting, busy year for all our programs.

The most important change has been the move into the National Grapevine

Importation and Clean Stock Facility, a building funded by a combination of federal, state and industry monies. I would like to thank all my staff for their hard work and dedication in making the transition to the new building as smooth as possible. And a special thanks to Susan Nelson-Kluk for her work in guiding the planning and construction of the facility.

FPMS has the potential to serve as an important contact point for University outreach efforts. As a part of our mission, we provide information about our crops in addition to the plant materials themselves. Although nurseries are our primary clientele, we have regular contact with numerous growers, consultants, and industry leaders for all of our crops. To better serve this mission, FPMS is working to develop a new series of "user friendly" price lists, brochures, guides and publications for our programs.

As our programs have grown, specialists have developed among our staff who are especially knowledgeable about individual programs. Orders and general questions should still be directed to our business office, but crop managers can be contacted when information about particular programs or plant materials are needed. Mike Cunningham (916-752-3888) is our crop manager for both the Tree Program and the Rose Program; Susan Nelson-Kluk (916-752-0538) is the manager for our Grape Program, and I will be serving as Strawberry Program manager (916-753-8102).

It was a great professional opportunity to be selected as FPMS Director. I am pleased that my first year has been so

successful for our programs - this success is thanks to the dedication of our staff, the contributions of the University, and the generous help and support of our industries. I look forward to the years ahead.

New Price Lists

FPMS has begun revising publications to be commodity specific. The old price list has been replaced by a separate list for each crop which includes short descriptions of custom services offered as well as plant materials available for purchase.

1995 Lab Tests

The FPMS laboratory has been using ELISA to test foundation trees and vines for specific viruses with the support of IAB funds. In the Spring of 1995, 2/3 of the trees in our foundation orchard (1302 trees) were tested for prunus necrotic ringspot and prune dwarf viruses, all trees tested negative. Half of the vines in the foundation vineyard (1027 vines) were tested in the Spring of 1995 for grapevine fanleaf and tomato ringspot viruses, all tested negative. Testing began in September on 1/3 of our foundation vineyard plus all new plantings for GLRV types I, II, III, and IV and grapevine virus A. When this work is complete in late fall, about 800 vines will have been tested. Of the foundation trees which are non-self indexing for mycoplasma-like organisms (MLOs) 1/4th (165) were tested by PCR for this pathogen; 2 shiro plum trees tested positive. Further tests will be conducted to verify the PCR data.

Financial Report

In 1994-95, FPMS gross revenues exceeded 1 million dollars for the first time. Of these funds, direct sales of materials and services comprised only 35%. Increasingly, the support of

commodity interest groups provides the backbone of our programs. User fees, industry donations, the IAB, and the University's Office of Technology Transfer contributed 60% of the total income for 1994-95. Copies of the 1995 Annual Report, with details of income, expenses, and materials distributed, can be obtained by contacting the FPMS office.

FPMS Workshops

FPMS has initiated a new series of nursery workshops to help us communicate with our industries about important or topical issues involving our programs. Workshops will be held whenever we find that valuable information about our materials or programs needs to be provided to our clients. The *FPMS Grape Clonal Workshop* was offered twice to nurseries and FPMS industry advisors in 1995; it was sold out both times it was held. In September, 1995, the *FPMS Tree Source Selection Workshop* was offered in conjunction with the California Association of Nurserymen. It was also a successful effort to update our clientele with the latest information available in the area. Both our workshops featured campus researchers as speakers, creating a valuable forum for industry/faculty interaction. From these workshops, many ideas have emerged about directions for the future.

Material Allocation Deadlines

When the demand for plant materials exceeds the supply, FPMS policy is to allocate the available materials among those requests received by the order deadline. Plant material resources are allocated according to an established priority system. First priority is to attempt to provide all who requested it a small amount of

material; second priority goes to California nurseries that participate in the Registration & Certification Programs; third priority is to other California customers; fourth priority is to out-of-state customers, and foreign requests are filled after all domestic requests have been satisfied. Orders submitted after the deadline are filled on a first-come first served basis.

Allocation Deadline	Type of Plant Material
February 1	Mist propagated grape plant orders for new selections (see "New Grape Materials Added to the Foundation Vineyard")
May 15	June tree budwood
August 1	Fall tree budwood Peach, plum, cherry seed
October 15	Rose rootstock canes Rose scion buds Fall tree rootstock cuttings
November 1	Betulaefolia pear seed Betulaefolia pear fruit Persimmon seed
November 15	Pistachio seed Dormant grape cuttings
December 1	Dormant tree buds Strawberry plants

Custom Grapevine Treatment, Testing and Quarantine Services

FPMS is now offering full-featured custom grape treatment and testing

services on a fee-for-service basis. Customers may choose to submit domestic selections or import foreign selections for disease testing alone, or for a combination of disease testing and elimination treatment. Customers who are confident that their materials are healthy, and want to qualify them for release from quarantine and/or for inclusion in the California Grapevine Registration and Certification Program, may choose to have their selection tested for disease (\$1500). When customers know their materials are diseased, they may choose to have FPMS produce treated materials and then test the them to see if the disease was eliminated (\$5000). Customers unsure of the disease status of their materials may choose to have FPMS produce backup treated materials while the original materials are being tested (\$2000). If the original materials are diseased, then treated materials are ready to be tested without delay (\$1500 additional). The prices shown above are for public materials that can be propagated without restriction. FPMS will treat custom items as proprietary at the customer's request for a higher fee. Proprietary materials are returned exclusively to the customer or their designated agent(s). A grape custom service order form and price list is available upon request from FPMS. For additional information please call Susan Nelson-Kluk, FPMS Grape Program Manager at (916) 752-0538.

New Grape Materials Added to the Foundation Vineyard

An information sheet describing all the new grape selections added to the Foundation Vineyard in the last two years is being prepared and will be sent to all participants in the California Grapevine Registration and Certification Program in mid-December. All customers will be able to order mist propagated plants of the new selections. An allocation deadline of February 1, 1996 has been established

for mist propagated plant orders of newly released selections. The earlier orders are received, the easier it will be to fill them. If orders for mist propagated plants exceed FPMS mist propagation capabilities, then available resources will be allocated between all who order by the deadline. Thereafter, orders will be processed on a first-come, first-served basis. This policy applies for the first two years after release of a new selection.

New Grape Clone Evaluation Information

Although the amount of information available about grape clones is still limited, several new publications became available this year. FPMS now offers the *Grape Clonal Workshop Binder* (August 1995) for \$50. This binder contains articles describing clonal evaluation work for many of the more popular and upcoming winegrape varieties. There are also several articles on Thompson seedless and rootstocks. In addition, the American Society for Enology and Viticulture (phone: 916-753-3142) now offers the *Proceedings of the International Symposium on Clonal Selection* (June 1995) for \$25. It includes 33 original papers on grape clonal selection work from researchers around the world.

Pistachio Seed Program

The decision was made during the last year to move the UCB#1 pistachio seed production operation from the Kearney Ag Center in Parlier to FPMS at UC Davis. Propagation of the male and female UCB#1 parent trees is underway for a 20-tree seed orchard to be planted in the Spring of 1996 on land adjacent to the FPMS Foundation Orchard. Because it will take approximately 5 to 7 years before the new seed trees

come into production, seed will continue to be harvested at Kearney until FPMS is able to assume full responsibility for production. Due to the dramatic increase in demand for this seed over the past two seasons, and in the interest of equitable distribution of available seed, FPMS has implemented an allocation process in which available seed is now shared among all who request it by November 15th each year, and any remaining seed is sold on a first-come, first-served basis. Because the seed crop is expected to be unusually light this year due to wet Spring weather (no more than 5-10 total lbs. of seed), we expect that all seed will sell out at allocation time. Finally, with the absorption of pistachio seed production into the FPMS program, industry representation for this program will now be included under the umbrella of the FPMS Tree Advisory Committee. The most recent performance evaluation reports on UCB#1 seed are available in the California Pistachio Commission Annual Research Report, which can be obtained by calling them at (209) 221-8294 or by contacting the FPMS office.

FPMS Rose Program

FPMS has begun the process of expanding the rose program on the Davis campus. Results of a rose nursery industry survey have been compiled and a priority list of varieties to be planted in the new rose garden has been developed. Twenty plants each of the high priority varieties will be planted, ten plants each of the second level of priority, and two plants each of the lowest priority. There are some varieties in the old garden that are of little interest to the industry. These will not be propagated to the new garden, but will continue to be maintained in the older collection.

Each of the plants used as a source of cuttings for the new collection, both understock and flowering varieties, was ELISA tested for the viruses that comprise the rose mosaic complex.

During the summer of 1995, cuttings were rooted from our older collection to be moved to the new location. Most of the propagation work for the higher priority items is complete. The plants will be placed in a fumigated piece of ground when the weather permits in the spring. These additions to our collection will dramatically increase the amount of budwood available for distribution in the 1996 season.

In a joint effort, the California Department of Food and Agriculture and FPMS are investigating the development of a set of guidelines that would allow FPMS to distribute rose plant material with written certification documenting the conditions under which the UC Davis rose program is conducted. This documentation would include such items of concern as disease testing procedures, frequency of testing, and visual inspection efforts. Our desire is to expedite the movement of rose plants through the various levels of inspection and paperwork required when shipping plants interstate and internationally.

Tree Program "Fruit Stand"

During the summer of 1996 we will be organizing an effort to check the trees planted in the Brooks Foundation Orchard for trueness to variety. Most of the trees will be in the third or fourth leaf and, provided we do not have a wet springtime like last year, there should be adequate fruit for this purpose. Mike Cunningham, FPMS Tree Program Manager, would like to encourage anyone interested in walking the Foundation Orchard and tasting from the large selection of plums, peaches, nectarines, apricots, and almonds, to be sure to look for the announcement for the FPMS Fruit Stand Open House coming up next season. Enjoy the harvest and do your part in supporting the California Fruit and Nut Tree Certification Program.

Strawberry Program

The FPMS Strawberry program serves the UC strawberry breeders, UC's Office of Technology Transfer, strawberry nurserymen and strawberry growers. UC patent income is used to support the program, which means that all OTT expenditures for the program require approval of the Office of the Vice Chancellor for Research. After careful review and consultation with all our program clients, a new budgetary procedure was developed and approved by all parties and our FPMS Strawberry Advisory Committee. This was done in conjunction with a review and reorganization of the program to better serve all our strawberry clients. With the budgeting process in place, the reorganization of the program, and the completion of the strawberry indexing greenhouse, the program has successfully completed its move from UC Berkeley to UC Davis.

Genetic Testing for Trueness To Type

Professor Fred Bliss and Dr. S. Arulsekhar of the UC Davis Pomology Department have announced a new service to the industry. The goals of this new program, as quoted from the brochure are: "To provide genotype identification of fruit and nut varieties using molecular marker technology" and "To develop a data base of genetic information about fruit and nut varieties." At the present time, isozyme assays are available for strawberry and walnut cultivars, selected cherry and almond cultivars, Paradox rootstocks, peach x almond hybrid rootstocks, Myrobalan 29C and Marianna 2624 plum rootstocks, and UCB#1 pistachio rootstock.

Consultation to discuss whether results that can be achieved will meet

your needs will be done on a case-by-case basis prior to samples being accepted. Because of the technology involved, not all questions about plant identity can be answered by this testing. Fees for services will be determined according to type of plant material, number of samples, and the specific test to be performed. After testing, a written report will be returned to the customer. Fees for service will be billed through FPMS. Phone Dr. Arulsekhar at (916) 752-1462, or FAX him at (916) 752-8502 for more information.

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