



Foundation Plant Services

UNIVERSITY OF CALIFORNIA • ONE SHIELDS AVENUE • DAVIS, CALIFORNIA 95616-8600

PHONE: (530) 752-3590 • FAX: (530) 752-2132 • WEB: <http://fps.ucdavis.edu>

UCDAVIS

FPS CUSTOM ROSE VIRUS TESTING, VIRUS ELIMINATION & MAINTENANCE SERVICES

The following custom rose virus testing and elimination services are available from FPS on a fee-for-service basis by contract with the University. Fees for each type of work are indicated. To initiate service for testing and heat therapy, please complete all information requested on the accompanying Service Request Form and enclose it with your plant material and fee payment (payable to "UC REGENTS") when the material is submitted. Material and accompanying paperwork should be sent via UPS or any other non-U.S. postal service carrier to the following street address: Foundation Plant Materials Service, University of California, SW Corner Hopkins & Straloch Rds, Davis, CA 95616. When these items are received, the FPS office will mail you two copies of an FPS disease testing and elimination service contract which must be signed and returned to the FPS office (address at top) before work can commence. When the work has been completed, you will receive a written report of the results and, if applicable, propagation material that has tested negative for virus. You may check on the progress of your work at any time by contacting rose program manager Mike Cunningham at (530) 752-3888 or by email at macunningham@ucdavis.edu.

HEAT THERAPY & FULL VIRUS TESTING PANEL..... \$2,000 per selection

In this procedure, FPS attempts to eliminate harmful rose virus(es) through the use of heat therapy and to confirm their elimination through post-therapy testing. This option is generally used to clean up known virus-infected selections, and takes approximately two years to complete when material is submitted at the optimum time of year in the early Spring (no later than May). The client will submit a minimum of three dormant, bare-root or potted plants of each candidate selection. After undergoing heat therapy, propagations from the plants are tested using the following testing procedures: (1) laboratory ELISA testing for Prunus necrotic ring spot, apple mosaic and Arabis mosaic viruses; (2) field indexing on the disease indicator Burr multiflora rose for visual symptoms of general virus disease, including but not limited to Prunus necrotic ring spot, apple mosaic, Arabis mosaic, rose rosette, ring pattern and Spring dwarf (the test does not indicate which specific virus(es) are present); and (3) field indexing on the disease indicator Shirofugen cherry for visual symptoms of Prunus necrotic ring spot and apple mosaic viruses. When all tests are confirmed negative, virus-tested material is returned to the customer. At the customer's request, selections in which virus has been successfully eliminated can be planted and maintained in the FPS virus-tested rose collection on a contractual fee-for-service basis (see "Maintenance of Virus-Tested Rose Selections in FPS Rose Garden" option on reverse). In this case, the client will be entitled to exclusive use of propagation material of such selection(s) free of charge for a period of two years after planting.

FULL VIRUS DISEASE TESTING PANEL..... \$500 per selection

This procedure is used to determine whether or not a rose selection is infected with virus(es) that can be detected with FPS testing procedures, and takes approximately two years to complete when material is submitted at the optimum time of year in the early Spring (no later than May). The client will submit a minimum of three dormant, bare-root or potted plants of each candidate

Continued on Reverse ➡

selection, which are tested using the following testing procedures: (1) laboratory ELISA testing for Prunus necrotic ring spot, apple mosaic and Arabis mosaic viruses; (2) field indexing on the disease indicator Burr multiflora rose for visual symptoms of general virus disease, including but not limited to Prunus necrotic ring spot, apple mosaic, Arabis mosaic, rose rosette, ring pattern and Spring dwarf (the test does not indicate which specific virus(es) are present); and (3) field indexing on the disease indicator Shirofugen cherry for visual symptoms of Prunus necrotic ring spot and apple mosaic viruses. At the customer's request, selections that have tested negative for virus can be planted and maintained in the FPS virus-tested rose collection on a contractual fee-for-service basis (see "Maintenance of Virus-Tested Rose Selections in FPS Rose Garden" option below). Propagating material can then be purchased from FPS at standard rose material prices.

SHIROFUGEN CHERRY INDEXING \$20 per selection

A more abbreviated rose virus testing procedure in which only the Shirofugen cherry indexing portion of the full virus testing panel is performed in order to screen for the presence of Prunus necrotic ring spot virus and apple mosaic virus. During the period of early May through the end of August, the client will submit three six-inch budsticks (collected from three different sectors) of each plant to be tested. Each set of budsticks should be individually labeled with the name of the selection. Results are available approximately 30 days after the candidate selections have been budded onto the indicators. This test alone is not sufficient to qualify rose selections for inclusion in the FPS rose collection.

MAINTENANCE OF PROPRIETARY ROSE SELECTION(S) IN THE FPS VIRUS-TESTED ROSE COLLECTION \$100 per selection per year

Proprietary rose selections that have passed the full virus testing panel at FPS, and whose maintenance is not financially supported by the Garden Rose Council, can be maintained on a contractual, fee-for-service basis in the FPS virus-tested rose collection. Plants included in the collection are maintained and tested for disease regularly along with the standard varieties in the FPS collection. A minimum of two plants of each selection must be maintained, however additional plants can be maintained for an additional fee of \$25.00 per plant per year. To initiate maintenance service, please contact the FPS rose program manager.

Important Note:

Although the tests and procedures performed at FPS are state-of-the-art and executed with the utmost of care, they can detect only the specific viruses or other pathogens that are being tested for, and heat therapy cannot guarantee the elimination of all viruses or other pathogens that may be present in candidate materials. There may be other unidentified viruses, strains of already-known viruses, or other pathogens which can affect plant health for which tests are not performed or are not currently available. Some pathogens may replicate and move slowly in a plant, and may not be uniformly distributed throughout the plant at the time of sample collection. Therefore, **disease tests should not be used as the sole factor in assessing plant health.**

Occasionally, disease may not be detected in only one growing season, so **nurseries and growers are cautioned to inspect their plants carefully prior to propagation.**