Fruit Varieties Journal 52(4):211-212 1998

Introduction to the Workshop: Preserving a Healthy Fruit Crop Industry in the United States

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Abstract

In order to maintain a healthy fruit crop industry in the US, the introduction of foreign pathogens must be prevented. Thus, regulations and procedures on the importation of plant material from outside the US have been established. Problems have arisen with the timely testing and release of material from quarantine which has hindered the necessary plant evaluation by scientists and nurseries, and distribution by nurseries. This workshop has been designed because of frustrations with the system on the part of some researchers and industry individuals who may lack knowledge of the regulations and procedures involved. A summary of these regulations and procedures will be described by personnel assigned with quarantine responsibilities. The need for timely and efficient movement of material through quarantine, evaluation and distribution of new cultivars will be discussed by a university researcher and a fruit industry representative. A discussion of quarantine, research and industry needs and problems and the means of maintaining a healthy fruit crop industry will follow the presentations.

U.S. Quarantine Program

Some diseases and pests of fruit producing plants present in foreign countries do not occur within the confines of the United States. To protect the domestic fruit industry the 1993 revision of the Code of Federal Regulations (CFR) 7 - U.S. Department of Agriculture 319.37 Animal and Plant Health Inspection Service (APHIS) Foreign Quarantine Notices have been enacted (1). This section of the CFR describes the legal procedures for plant importation.

Plant importation is divided into three quarantine categories, prohibited, restricted (post-entry), or admissible, depending on the genus and the source country (2). Most foreign fruit plants or propagules are likely to be infected with pathogenic agents, such as viruses, viroids, or phytoplasmas, and are categorized as "prohibited." However, budwood of properly certified pome and stone fruit can be introduced under post-entry permit from Belgium, Canada, France, Germany, Great Britain, and The Netherlands. Seeds of pome fruits are admissible without quarantine, although seeds of stone fruits are prohibited because of potential contamination with plum pox virus.

Prohibited plant materials must be introduced into the United States under a departmental permit such as that of the USDA Plant Germplasm Quarantine Office (PGQO), Beltsville, Md., or the National Research Support Project-5 (NRSP-5), Prosser, WA. The PGQO includes staff members from APHIS and from the Agricultural Research Service (ARS), and processes items for public and private interests. Materials released from their program are deposited for long-term preservation into assigned clonal repositories of the National Plant Germplasm System and with the requestor. The clonal repositories preserve the assigned genetic resources and distribute the material for the research efforts of the requestor and others. The NRSP-5 processes fruit tree cultivars for commercial interests for a fee and releases the material only to the requestor who initiated the contract. Accessions available through the NPGS can be searched on the worldwide web at the following address: http://www.ars-grin.gov/npgs.

Questions for the System

With these regulations and systems in place questions have recently surfaced from the research and commercial com-

munity on the efficiency of processing plant material through quarantine. Questions which have arisen recently from the pome fruit community include the following:

- Why can tree fruits be processed through NRSP-5, Prosser faster than can be done in PGQO, Beltsville? Why are the virus testing protocols different in these locations, although both are granted departmental permits?
- Why have no field test results been available on pome fruits at Beltsville for the past four years? Why has the last release of pears (unconditionally) been in 1987?
- How can the U.S. fruit researchers and industry keep up with new cultivar and rootstock developments in other countries without being able to trial them under climate conditions in the U.S.? We are about 5 to 7 years behind the Europeans by some estimates.
- Can additional foreign certification programs be accepted as post-entry quarantine sources? What is the process to get them approved?

With these questions in mind the American Pomology Society has asked a panel composed of a broad range of interests regarding fruit quarantine to present their views. The panel includes representatives from APHIS, ARS, NRSP-5, an emeritus professor experienced in plant collection, and a commercial nurseryman. The objectives of this discussion were to:

- educate researchers, growers, and the public, concerning plant quarantine regulations.
- highlight specific difficulties in plant importation during the past ten years
- provide suggested steps on improvements in the quarantine system.

Recent administrative changes have occurred in the supervision of the Plant Germplasm Quarantine Office, Beltsville, Md. Also, new molecular techniques for the detection of pathogens have recently been discussed at the Fourth International Symposium of Virus Diseases which occurred in Bethesda, MD in June 1997. For some pathogens, detection time has been reduced from three-year field tests to one-day laboratory tests. The time is right for this discussion regarding changes in the plant quarantine system for the United States.

Literature Cited

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Fruit Varieties Journal 52(4):212-214 1998

The Needs of the Fruit Industry in the U. S. for the Important Testing and Release of New Cultivars: An Industry Perspective

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Abstract

The United States fruit industry is finding that the world fruit markets are becoming more competitive on an international level. The need to stay current with the national and international market demands are quickly becoming a reality for the future existence of our fruit industry. The breeding programs around the world are competing for these consumer demands. Our ability to rapidly import, evaluate, and commercialize these varieties will have a major impact on the success of the United States fruit industry to remain in business and make available to their customers both domestic and international what they require for the 21st century. The current plant introduction systems need major overhaul to speed the entry of new genetic material into our country.

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