

(Approved by the Office of Management and Budget under control number 0579-0248.)

Done in Washington, DC, this 29th day of April 2004.

Peter Fernandez,

Acting Administrator, Animal and Plant Health Inspection Service.

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DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

7 CFR Part 319

[Docket No. 98-035-5]

RIN 0579-AB75

Importation of Orchids of the Genus *Phalaenopsis* From Taiwan in Growing Media

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Final rule.

SUMMARY: We are amending the regulations governing the importation of plants and plant products to add orchids of the genus *Phalaenopsis* from Taiwan to the list of plants that may be imported in an approved growing medium subject to specified growing, inspection, and certification requirements. We are taking this action in response to a request by Taiwan and after determining that *Phalaenopsis* spp. plants established in growing media can be imported without resulting in the introduction into the United States or the dissemination within the United States of a plant pest or noxious weed.

EFFECTIVE DATE: June 4, 2004.

FOR FURTHER INFORMATION CONTACT: Mr. William Thomas, Import Specialist, Phytosanitary Issues Management, PPQ, APHIS, 4700 River Road Unit 140, Riverdale, MD 20737-1236; (301) 734-6799.

SUPPLEMENTARY INFORMATION:

Background

The regulations in 7 CFR part 319 prohibit or restrict the importation into the United States of certain plants and plant products to prevent the introduction of plant pests and noxious weeds. The regulations in "Subpart—Nursery Stock, Plants, Roots, Bulbs, Seeds, and Other Plant Products," §§ 319.37 through 319.37-14 (referred to below as the regulations or Quarantine 37) contain, among other things, prohibitions and restrictions on the importation of plants, plant parts, and seeds for propagation.

The regulations in Quarantine 37 currently allow the importation of orchids from all countries of the world, provided that the plants are (1) free of sand, soil, earth, and other growing media, (2) accompanied by phytosanitary certificate of inspection, (3) imported under a permit issued by the Animal and Plant Health Inspection Service (APHIS), and (4) imported into a Federal plant inspection station listed in § 319.37-14(b), where they are subject to inspection by APHIS. Such plants are imported bare-rooted into the United States, and are rooted and potted for sale by U.S. nurseries.

On September 1, 1998, we published in the **Federal Register** (63 FR 46403-46406, Docket No. 98-035-1) a proposal to amend the regulations by allowing the importation of orchids of the genus *Phalaenopsis* established in an approved growing medium, subject to specified growing, inspection, and certification requirements. We proposed this action in response to a request from Taiwan and after determining that the degree of pest risk posed by these plants is no greater than the pest risk associated with the importation of bare-rooted *Phalaenopsis* spp. orchids, which may already be imported under the regulations. We accepted comments on our proposal for a total of 90 days, ending December 1, 1998.¹

In response to comments received on the proposed rule (discussed in detail later in this document), APHIS narrowed the application of the rule to *Phalaenopsis* spp. orchids from Taiwan and entered into consultation with the U.S. Fish and Wildlife Service (FWS) to assess the potential effects of the proposed action on endangered or threatened species, as required under section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*). On April 7, 2003, FWS concluded the section 7 consultation process by concurring with APHIS's determination that the importation of *Phalaenopsis* spp. orchids from Taiwan in growing media will not adversely affect federally listed or proposed endangered or threatened species or their habitats. The section 7 consultation for this rule is described later in this document.

Upon receiving concurrence from FWS, APHIS completed an environmental assessment in accordance with: (1) The National Environmental Policy Act of 1969, as amended (NEPA) (42 U.S.C. 4321 *et seq.*), (2) regulations of the Council on

Environmental Quality for implementing the procedural provisions of NEPA (40 CFR parts 1500-1508), (3) USDA regulations implementing NEPA (7 CFR part 1b), and (4) APHIS's NEPA Implementing Procedures (7 CFR part 372). On May 9, 2003, we published in the **Federal Register** (68 FR 24915, Docket No. 98-035-3) a notice announcing the availability of the environmental assessment, and solicited comments on the environmental assessment for 30 days ending June 9, 2003. On June 11, 2003, we published in the **Federal Register** (68 FR 34898-37899, Docket No. 98-035-4) another notice that extended the comment period on the environmental assessment for an additional 30 days ending July 9, 2003.

2003 Risk Analysis

Also in response to public comments, APHIS updated the risk assessment that was prepared in support of this rulemaking action. The original risk assessment, referred to elsewhere in this document as the 1997 risk assessment, identified pests that are known to be associated with *Phalaenopsis* spp. plants in Taiwan and assessed the risk posed by those pests in the absence of the mitigative effects of the requirements of § 319.37-8(e), which are designed to establish and maintain a pest-free production environment and ensure the use of pest-free seeds or parent plants. However, as noted by commenters, the 1997 risk assessment did not contain a thorough description of how the mitigation measures required under the regulations in § 319.37-8(e) reduce the risk posed by the specific quarantine pests of *Phalaenopsis* spp. orchids that were identified in the risk assessment. Because the original risk assessment was prepared in April 1997, APHIS believes it was appropriate to update the risk document that supported this rule in several ways in order to address commenters' concerns regarding its adequacy. These changes were necessary to provide the most transparent communication of risk possible at this time.

First, we revised the 1997 risk assessment to bring it up to date with current APHIS guidelines for pathway-initiated risk assessments. As a result of this update, some of the risk ratings that were identified in the 1997 risk assessment have changed.² These changes are a result of the fact that the new risk assessment guidelines employ the use of a different risk rating system

¹The comment period on the proposed rule was extended from 60 to 90 days in a notice published in the **Federal Register** on October 29, 1998 (63 FR 57932, Docket 98-035-02).

²In the 2003 risk analysis, the baseline pest risk potential for 5 of the identified pests has been reassessed as "medium" rather than "high."

that was not used by APHIS at the time the 1997 risk assessment was drafted. Using the current guidelines, the individual risk elements that compose the overall estimated consequences and likelihood of introduction associated with the importation of the commodity are assigned a rating of low (1 point), medium (2 points), or high (3 points) for each known quarantine pest.

Cumulative risk values for consequences and likelihood of introduction are then calculated by a summation of their component risk estimates, and the overall pest risk potential posed by the identified pests is calculated by adding together the ratings for consequences and likelihood of introduction for each pest. The interpretation scale was modified based on agency experience with other importations, and a "risk score" is no longer used. Instead, descriptions of pest biology augment the presentation of the risk ratings. For a detailed description of the current process, please refer to APHIS's Guidelines for Pathway-Initiated Risk Assessments.³

Next, we searched for any additional research and data published since the 1997 risk assessment was prepared that could have a bearing on the findings of the risk assessment and updated the document accordingly. Specifically, the fungus *Colletotrichum phalaenopsidis*, which was listed in the 1997 assessment as a quarantine significant pest that could follow the *Phalaenopsis* spp. orchid import pathway, was removed from further consideration because it has been synonymized with (considered to be the same species as) *C. gloeosporioides* (Penz.), which is widely distributed in the United States.

Finally, we added a substantial discussion of how the risk mitigation measures contained in § 319.37-8(e) mitigate the risks posed by the six quarantine pests that were identified as likely to follow the commodity import pathway. This part of the analysis is referred to as "risk management," and is contained in part III of the revised risk document. Note that, due to the addition of risk management to the risk document, we now refer to the document as a "risk analysis." Risk analysis is the combined product of risk assessment (an analysis of pests associated with the commodity) and risk management (an analysis of the effectiveness of the measures chosen in mitigating the risk posed by the pests identified in the risk assessment). The revised risk analysis, "Risk Analysis of

the Importation of Moth Orchid, *Phalaenopsis* spp. Plants in Approved Growing Media From Taiwan into the United States," was completed May 6, 2003. The revised risk analysis is referred to throughout this document as the 2003 risk analysis, and is available on the Internet at <http://www.aphis.usda.gov/ppq/pim/>.

Determination by the Secretary

In this document, APHIS is adopting its proposal to allow the importation of orchids of the genus *Phalaenopsis* established in an approved growing medium as a final rule, with the changes discussed in this document. Specifically, we are allowing the importation of *Phalaenopsis* spp. plants in growing media from Taiwan only.

Under § 412(a) of the Plant Protection Act, the Secretary of Agriculture may prohibit or restrict the importation and entry of any plant or plant product if the Secretary determines that the prohibition or restriction is necessary to prevent the introduction into the United States or the dissemination within the United States of a plant pest or noxious weed.

The Secretary has determined that it is not necessary to prohibit the importation of orchids of the genus *Phalaenopsis* from Taiwan that are established in an approved growing medium in order to prevent the introduction into the United States or the dissemination within the United States of a plant pest or noxious weed. This determination is based on the findings of the risk documents referred to earlier in this document, and the Secretary's judgment that the application of the measures required under § 319.37-8(e) will prevent the introduction or dissemination of plant pests into the United States.

Regulatory Requirements

Under this final rule, *Phalaenopsis* spp. plants imported in growing media are subject to the requirements of § 319.37-8(e), which:

- Specifies the types of growing media that may be used;
- Requires plants to be grown in accordance with written agreements between APHIS and the plant protection service of the country where the plants are grown and between the foreign plant protection service and the grower;
- Requires the plants to be rooted and grown in a greenhouse that meets certain requirements for pest exclusion and that is used only for plants being grown in compliance with § 319.37-8(e);
- Restricts the source of the seeds or parent plants used to produce the

plants, and requires grow-out or treatment of parent plants imported into the exporting country from another country;

- Specifies the sources of water that may be used on the plants, the height of the benches on which the plants must be grown, and the conditions under which the plants must be stored and packaged; and
- Requires that the plants be inspected in the greenhouse and found free of evidence of plant pests no more than 30 days prior to the exportation of the plants.

A phytosanitary certificate issued by the plant protection service of the country in which the plants were grown that declares that the above conditions have been met must accompany the plants at the time of importation. These conditions have been used successfully to mitigate the risk of pest introduction associated with the importation into the United States of approved plants established in growing media.

Discussion of Public Comments on the Proposed Rule

We received 40 comments on the proposed rule by the close of the comment period. The comments were from orchid growers and sellers, Members of Congress, farm bureaus, Federal and State government agency representatives, university researchers, agricultural research scientists, and orchid, nursery, landscape, and floriculture associations and societies. Thirty-five of the commenters opposed some aspect of the rule, and the remaining five requested that APHIS extend the comment period on the proposal, which we did, for 30 days (see 63 FR 57932). The comments are discussed below, by topic.

We also received a letter from the Small Business Administration (SBA) regarding our proposal, which we considered along with public comments received by the close of the comment period. Several issues raised by SBA were also raised by other commenters; therefore, we discuss all comments, including the SBA letter, below.

We also received 19 comments in response to our May 2003 notice of the availability of the environmental assessment. Many of those comments pertain to the 2003 risk analysis or to the proposed rule for this action. Comments that pertained to the environmental assessment are addressed in the final environmental assessment, and the accompanying finding of no significant impact, which may be viewed on the Internet at <http://www.aphis.usda.gov/ppd/es/ppqdocs.html>. Comments that pertained

³Version 5.02, available on the Internet at: <http://www.aphis.usda.gov/ppq/pracommodity/cpraguide.pdf>.

to the 2003 risk analysis or the proposed rule are addressed below, along with comments submitted during the comment period for the proposed rule.

Availability of Resources and Verification of Compliance

One commenter stated that due to budget cuts and downsizing in Federal agencies, it is unclear whether APHIS can continue to conduct adequate inspections, especially in the face of an increase in the amount of plant material entering the United States.

While some Federal agencies have been subject to budget cuts and downsizing, APHIS's appropriated funding for Agricultural Quarantine Inspection (AQI) Programs has doubled since 1998, from approximately \$27.2 million to \$55 million in 2002. Funds collected via AQI user fees have increased from \$140.5 million in 1998 to \$260 million in 2002. The inspections required under this rule will not be affected by the transfer of APHIS personnel to the Department of Homeland Security (DHS). All plants imported under this rule are required to be imported into Federal plant inspection stations,⁴ which continue to be staffed by APHIS, not DHS, inspectors. APHIS has reviewed its resources and believes it has adequate resources available to ensure compliance with the conditions of the final rule.

One commenter stated that the conditions imposed by § 319.37-8 cannot be verified by APHIS because the cost of attempting to verify compliance is a significant expense and would require an unprecedented level of cooperation from other governments and their agencies, many of whom are ill-equipped to do their jobs or may be influenced by corrupt elements. The commenters stated that if APHIS does not physically conduct the reviews required by the regulations, the Agency must demand, receive, and review documentation from the exporting country and its growers that is sufficient to satisfy the Agency that the conditions of § 319.37-8 have been complied with.

Under the regulations in § 319.37-8, there must be an agreement between APHIS and a foreign entity for enforcement of the regulations in that section. In this case, the agreement will technically be between the American Institute in Taiwan and the Taiwanese Economic and Cultural Representative's Office, and will involve the plant protection organization of Taiwan and APHIS (this agreement is referred to

elsewhere in this document as "U.S.-Taiwan agreement"). Each grower who wishes to export to the United States under the regulations must enter into an agreement with the plant protection organization of Taiwan whereby he or she must agree to comply with the provisions of the regulations in § 319.37-8 and to allow APHIS inspectors, and representatives of Taiwan's plant protection organization, access to the growing facility as necessary to monitor compliance with the provisions of that section. Taiwan's plant protection organization is responsible for ongoing oversight of the program. APHIS inspectors will monitor for compliance with the regulations by making periodic visits to production sites, as is the case with current and past plants in growing media programs, such as the following:

- In the Netherlands, two to four greenhouses (companies) have participated in the plants in growing media program each year since 1990. Both ferns and *Anthurium* have been grown and exported to the United States. Currently, three greenhouses are in the program. APHIS plant health specialists inspect the greenhouses 4 to 12 times a year for noncompliance with program requirements, including the absence of plant pests. No greenhouses have been found to be noncompliant and no plant pests have been found on any of these visits.
- In Israel, one greenhouse growing ferns and African violets participated in the plants in growing media program between 1990 and 1994. This facility was inspected by APHIS plant health specialists three to five times a year. Again, no greenhouses were found to be noncompliant and no plant pests were found.

Based on our experience with these programs, we are confident that the safeguards work, and that we can verify compliance regularly.

One commenter stated that, under § 319.37-8(g)(4)(ii), sufficient APHIS resources must be available to implement or ensure implementation of appropriate mitigation measures. The commenter cited a report by the U.S. General Accounting Office (GAO) that APHIS is unable to determine the extent to which its inspection programs actually work. The commenter posited that, given the GAO report, APHIS is unable to determine the extent to which its inspection programs actually work, and therefore, cannot determine that sufficient APHIS resources are available to implement or ensure implementation of the appropriate mitigation measures.

The portion of the GAO report cited by the commenter (GAO report RCED-

97-102) deals primarily with issues surrounding the allocation of APHIS inspectors at ports in the United States according to risk-based criteria. The report acknowledges that "APHIS faces a difficult mission" in ensuring that tons of cargo and millions of passengers entering the United States do not bring in harmful pests or diseases, and found that APHIS should "allocate its limited inspection resources to the ports of entry with the highest risks of pest and disease introduction." These findings should not be construed to mean that APHIS "is unable to determine the extent to which its inspection programs actually work." As stated earlier in this document, APHIS has reviewed its resources and believes it has adequate resources available to ensure compliance with the conditions of the final rule.

One commenter expressed concern that Taiwan will receive plants moved from China, relabel them, and ship them directly to the United States.

The regulations require that the plant protection organization of Taiwan ensure that the plants exported to the United States meet the requirements contained in § 319.37-8(e). It is in an exporting country's interest to ensure that the requirements of importing countries are strictly followed. If falsified documentation is discovered, it could impact severely on the exporter, and possibly the exporting country's plant protection service, and could result in the loss of export markets.

One commenter questioned what will happen if parties are caught out of compliance, including in the event of pest- or disease-infested shipments.

If APHIS determines that *Phalaenopsis* spp. orchids imported from Taiwan in growing media contain quarantine or actionable pests, APHIS may hold all imports until an investigation can be completed and appropriate measures initiated, including stopping imports from a specific producer or shutting down the entire program, if the circumstances show that such an action is warranted.

Trade and Equivalence

One commenter expressed concern that APHIS's pest prevention mission is being compromised in favor of trade facilitation, and stated that the proposed action appears to be linked in trade negotiations that resulted in agreements for U.S. exports of other commodities.

APHIS makes decisions as to whether to allow the importation of agricultural products and commodities based on an evaluation of facts, data, and available scientific evidence. While the order of processing particular requests may be

⁴ A list of Federal plant inspection stations is contained in 7 CFR 319.37-14(b).

influenced by trade considerations, and the components of a risk management program may be a product of negotiations between APHIS and its foreign counterparts, the ultimate determination as to whether a commodity can be safely imported is based on a determination that the product can be imported without introducing a plant pest or noxious weed into the United States.

One commenter stated that U.S. producers should have equivalent access to the export market, and claimed that producers have considerable difficulty exporting, even within the NAFTA region. The commenter claimed that adoption of the proposed rule would make the "playing field" even less level. Another commenter stated that there is no indication whatsoever that reciprocal arrangements with Taiwan or any other country are anticipated, and that no nation should be allowed to export to the United States without U.S. growers being able to export plants back under the same conditions.

Other countries make decisions as to whether to allow the importation of U.S. products only when formally requested. If U.S. producers of orchids wish to export to other countries, those persons may submit a request to APHIS, and APHIS will take that request to the appropriate country's plant protection organization for their consideration. Upon receipt of a request, APHIS may contact the requestor and ask for additional information prior to making a proposal to the designated export country.

In any case, measures applied to mitigate the risk posed by a particular plant or plant part exported from one country to another are determined by the particular risks posed in each case. Because of climatic conditions and other factors, the risks posed to Taiwan by *Phalaenopsis* spp. orchid imports from the United States are not likely the same risks posed by imports of Taiwan-grown *Phalaenopsis* spp. orchids into the United States. The risk posed by imported plants is dependent on the pests associated with the commodity in the country of origin and the pests' potential impact on the importing country. As such, reciprocal trade could occur under the same phytosanitary conditions if the pest dynamics in each country are the same.

One commenter questioned whether other countries could make a similar request to import other potted orchids that are now grown in the United States, provided the countries meet APHIS's sanitary and certification standards.

Any country may request that APHIS consider allowing the importation of a new commodity. Whether APHIS grants that request is tied to the findings of a risk analysis and a determination by the Secretary of Agriculture as to whether the commodity can be imported without resulting in the introduction into the United States or the dissemination within the United States of a plant pest or noxious weed.

One commenter questioned whether APHIS is obliged to grant every request to import an agricultural commodity into the United States as long as it is pest-free and will benefit the American consumer, without regard to the effects on small, minority- or family-operated businesses in the United States.

APHIS is bound by Federal statutes and executive orders that require us to consider the economic effects of our actions, as well as to identify and assess the costs and benefits of regulatory alternatives, including alternatives that reduce economic effects on small entities. However, pursuant to § 7701(3) of the PPA, APHIS regulates exports, imports, and interstate commerce in agricultural products and other commodities that pose a risk of harboring plant pests or noxious weeds in ways that will reduce, to the extent practicable, as determined by the Secretary, the risk of dissemination of plant pests or noxious weeds. The determination to allow an import under the PPA is based on the Secretary's determination that the importation of a commodity will not result in the introduction into or dissemination within the United States of a plant pest or noxious weed.

One commenter stated that APHIS is not acting in accordance with its mission by "enhancing the competitive positions of the countries currently exporting orchids to the United States." The commenter stated that, instead of being concerned for the well-being of foreign interests, APHIS should work to enhance the competitiveness of U.S. businesses.

The quote cited by the commenter is taken from APHIS's initial regulatory flexibility analysis (IRFA), which is contained in the proposed rule. The IRFA identifies the economic effects that could be associated with adoption of the proposed rule, but the text cited is not part of APHIS's rationale for making the proposal; rather, it was considered as a possible consequence of adopting this rule. As stated earlier in this document, the Secretary considers many factors in making a determination to allow the import of a previously prohibited article, such as potential environmental effects and the economic

effects associated with the introduction of a plant pest or noxious weed. The determination to allow an import under the PPA, however, is ultimately based on the Secretary's determination that the importation of a commodity will not result in the introduction into or dissemination within the United States of a plant pest or noxious weed. This approach is consistent with APHIS's obligations under the PPA and international trade agreements.

Part of APHIS's mission is to facilitate exports, and we strive to do so. Success in this area is somewhat tied to factors out of our control, but we make every effort to assist domestic industry in securing access to export markets.

One commenter stated that imports should have to meet the same standards as U.S. products, including growing conditions, pest freedom, pesticides applied, etc. The commenter stated that the proposed rule would allow the importation of orchid plants subject to fewer restrictions than apply to interstate shipments.

We are unclear as to what standards the commenter refers. There are no Federal restrictions on the interstate movement of orchids, and as such, there are no specific "standards" that apply to how they are grown or shipped. *Phalaenopsis* spp. plants imported from Taiwan in growing media would have to meet the strict phytosanitary conditions contained in § 319.37-8(e), while domestically produced orchids are not subject to any Federal regulation whatsoever. While individual producers may adopt specific standards for how their plants are produced, and individual States may impose requirements that apply to the intrastate movement of plants, those standards are not Federal standards, are not applicable in every State, and cannot be applied to plants being imported into the United States.

Risk Assessment

General

Several commenters stated that because the 1997 risk assessment only considered the importation of orchids from Taiwan, it cannot be used to evaluate the risks associated with importation of orchids from any other area, as APHIS proposed. The commenters noted that pests and pathogens are not the same from country to country, and that a pest risk assessment and management strategy for *Phalaenopsis* spp. orchids is needed for each exporting country.

We agree with the commenter's statement. In this final rule, we are only authorizing the importation of

Phalaenopsis spp. orchids in approved growing media from Taiwan—the region considered in the 1997 risk assessment and the 2003 risk analysis.

One commenter stated that APHIS should reexamine its 1997 pest risk assessment, analysis procedures, and policies to ensure that they are consistent with current levels of scientific knowledge and standards. The commenter stated that the 1997 risk assessment should form “a link between scientific data and decision makers,” but also that decisionmakers must have accurate and adequate scientific data upon which to base their decisions—which, the commenter argued, is not the case in this rulemaking. The commenter further claimed that the risk assessors’ conclusion is simply an opinion—one not supported by any scientific rigor—and does not even appear to have been used by the decisionmakers.

As noted elsewhere in this document, we have updated the 1997 risk assessment to bring it up to current standards. This update included (1) inserting the data from the 1997 risk assessment into the risk assessment document format currently used by APHIS, (2) searching for additional research and data published since the 1997 risk assessment was prepared that could have a bearing on the findings of the risk analysis, and (3) adding a substantial discussion of how the risk mitigation measures selected reduce the risk posed by quarantine pests of *Phalaenopsis* spp. orchids that can be expected to follow the import pathway. We believe that by making the link between the identified quarantine pests and the mitigation measures more apparent, we have addressed the commenter’s concern about the need for a link between scientific data and decisionmakers. The 2003 risk analysis is based on the best data available to us at the time the analysis was drafted, and it provides a clear and rational basis as to why *Phalaenopsis* spp. orchids imported from Taiwan in growing media will not result in the introduction of plant pests or noxious weeds into the United States.

Several commenters stated that the 1997 risk assessment should incorporate a rigorous study of conditions and practices at foreign nurseries and all existing inspection reports of imported bare-root orchid plants. The commenters expressed concern that imports of *Phalaenopsis* spp. orchids in growing media could result in the introduction of new insects and diseases into the United States, and stated that such pests would pose a grave threat to both indigenous species and commercially cultivated plants.

The 1997 risk assessment and the risk assessment portion of the 2003 risk analysis are based on (1) a search of all available scientific literature and (2) APHIS’s pest interception records for imported plants of the genus *Phalaenopsis* and the plant family Orchidaceae. As such, we examined data on prior bare-root orchid imports and visited some of the production sites that would export as a result of the final rule. Furthermore, any exports of *Phalaenopsis* spp. orchids by Taiwan would be contingent on an inspection of the production sites by APHIS and the execution of the U.S.-Taiwan agreement described earlier in this document. We believe our 2003 risk analysis provides an adequate analysis of the risks posed by quarantine pests, and documents how the measures in § 319.37–8(e) remove those pests from the import pathway.

Several commenters stated that basing a risk assessment on a literature search has some inherent weaknesses. One of the commenters stated that literature searches do not catch all pests due to the fact that pests have different common names, and because only the title words of literature are searched. Several commenters also stated that insufficient scientific literature and biological information regarding orchid pests exists to justify reliance upon a literature search, as orchids are not a major agricultural commodity and research has not been conducted to the necessary depth for every pest on every orchid species. Several commenters noted that orchids are a niche crop, and that as such, have not had the extensive research that more widely produced crops typically endure. One commenter stated that APHIS should conduct field tests and preclearance surveys on the imported plants in addition to a literature search. Another commenter claimed that the risk potential for all the pest species identified may be high, yet due to a lack of information, the potential effects of orchid importation cannot be adequately addressed at this time. Another commenter stated that the 1997 risk assessment may not consider all potential pests, and therefore, the mitigation measures would also have to mitigate any risk posed by unknown organisms. The commenter stated that the risk mitigations are not designed to protect against all potential unidentified pests.

The purpose of conducting an analysis of the risk posed by imported agricultural commodities is to evaluate available scientific evidence and to provide an evaluation of the risk associated with the importation of those commodities. As such, APHIS can only

make the determination to allow the importation of the commodity based on the current state of scientific knowledge. In developing the list of pests that are analyzed in the 1997 risk assessment and 2003 risk analysis, we began with a list of pests provided to us by Taiwan. We then consulted applicable scientific literature (including field surveys done to date) and reviewed APHIS’s records to determine what pests were intercepted on imported plants of the genus *Phalaenopsis*. Literature searches are unique to each risk analysis, and typically begin with broad searches of both abstracts of publications and the entire text of publications, depending on the database being searched. These initial searches typically use scientific species, genus, and family names, as well as known common names of plants. As analysts learn more about the pests involved and their nomenclature, additional pest-specific searches are conducted.

We believe these sources provide an adequate means to identify and assess pests of concern. Further, we disagree with commenters’ contentions that orchids are niche crops. While orchids may not be one of the top-selling products in the entire floriculture industry, they rate highly among other potted flowering plants, according to data collected by the National Agricultural Statistics Service. (See <http://www.usda.gov/nass/> for more information.)

While we do not believe there is a shortage of appropriate scientific information in this specific case, if APHIS were to regulate the trade of agricultural commodities based on the risk posed by unknown factors, such an action could be viewed as highly arbitrary, which could potentially affect the export markets for our own domestically produced commodities. Under the PPA, APHIS protects American agriculture while facilitating the trade of agricultural commodities. There is always some uncertainty associated with the risk posed by imported agricultural products, and if zero risk were the standard applied, there would be no international trade in agricultural products. While we can never be certain that our methods, regulations, and policies will exclude pests 100 percent of the time, our goal is to do just that, to the extent practicable. We are confident that the measures required under this rule will reduce the risk posed by *Phalaenopsis* spp. plants imported from Taiwan in approved growing media. Our judgment is supported by the fact that bare-rooted *Phalaenopsis* spp. plants and the growing media in which they will be

imported have separately been imported from throughout the world for many years with no known associated pest problems. Given that the plants in growing media will be subject to a number of additional requirements (the effects of which are considered and evaluated in the risk management section of the 2003 risk analysis) that do not apply to bare-rooted plants, we believe that the risk posed by known and unknown pests is appropriately reduced, to the extent practicable, by the measures in § 319.37–8(e).

One commenter claimed that a pest should have been included in the pest list, but was not because it has multiple common names, including “spiraling whitefly,” “keys whitefly,” and “spiral whitefly.”

While the commenter did not specify the scientific name of the pest, we assume he is referring to *Aleurodicus dispersus*. There is no available evidence to show that this pest attacks orchids in Taiwan. Our process for searching for pests associated with a given commodity is described earlier in this document.

One commenter stated that APHIS should reassess the role that the propagative material pathway is playing in new pest introductions, claiming that the U.S. nursery and greenhouse industry has suffered from continuing pest incursions associated with plant material imports. The commenter claimed that the current system associated with imported propagative material is failing and that expanding the list of plant material allowed entry established in growing media using as a baseline the risk associated with bare-root materials—regardless of the acceptability of that current risk—is reckless.

APHIS recognizes that the underlying structure of the regulations for nursery stock and other propagative material are different from the corresponding regulations for fruits and vegetables. Fruits and vegetables are prohibited entry into the United States unless the regulations specifically provide otherwise. In contrast, nursery stock and other propagative plant material (except plants imported in growing media) are allowed importation subject to inspection at a plant inspection station unless the regulations specifically provide otherwise. While APHIS conducts risk analyses in each case where the importation of a new fruit or vegetable is proposed, risk analyses are only conducted for nursery stock and propagative material in response to a demonstrated pest problem or in response to a new request to import plants in growing media. The

regulations in § 319.37–8(g) currently provide that APHIS will allow the importation of plants in growing media if it determines, using risk analysis, that the plants pose the same or less risk than bare-rooted plants which are already allowed importation under the current regulations in Quarantine 37. In this case, restricting the entry of *Phalaenopsis* spp. orchids in growing media is not necessary because the measures in § 319.37–8(e) reduce the risk posed by those plants to a level at or below that of bare-root plants.

APHIS recognizes that there is a need to reconsider the underlying structure of the nursery stock regulations in order to better address the risk posed by propagative material and has been considering ways to approach the issue for several years. We are in the process of drafting an advanced notice of proposed rulemaking on the subject of revising Quarantine 37; however, we are not able to provide a projected publication date at this point.

One commenter expressed confusion as to why the title of the 1997 risk assessment indicates that seedlings are under consideration, yet neither the body of the 1997 risk assessment nor proposed rule address the distinction between seedlings and adult plants.

The reference to seedlings in the title of the 1997 risk assessment was made in error. While Taiwan requested that we allow the importation of *Phalaenopsis* spp. seedlings in growing media, the 1997 risk assessment and 2003 risk analysis actually consider the risk posed by all plants regardless of whether they were grown from seed or whether they are a specific size or age.

One commenter stated that some of the pests identified in the 1997 risk assessment could affect other plants besides orchids and that APHIS should have discussed potential effects on those species in the proposed rule.

Risk analyses conducted by APHIS are designed to assess the risk of introducing quarantine pests into the United States, regardless of the domestic plants that can serve as hosts for those pests. The 1997 risk assessment considered potential effects on other plants in its estimates of consequences of introduction, as does the 2003 risk analysis. We acknowledge that some pests attack other hosts besides orchids; however, the Secretary’s determination to allow the importation of *Phalaenopsis* spp. orchids from Taiwan in growing media was derived from the conclusions of the 2003 risk analysis, which shows that importations of those plants will not result in the introduction of pests into the United States.

One commenter stated that the importation of propagative material presents different levels of risk than does trade in major food commodity crops, which are well-studied. The commenter stated that more is known about the pests associated with fruits and vegetables, including those that are incidental, but that little is known about crops such as orchids, and therefore, informed decisionmaking is not possible. The commenter claimed that if a pest is allowed to enter and become established, there may not be enough knowledge about its background, enemies, physiology, hosts, and so on, to enable us to control it quickly.

We agree with the commenter’s statement that propagative material presents different risks than do food commodities, primarily because of the nature of the commodity. Pests associated with fruits and vegetables can be the same species as those associated with propagative plants. Nevertheless, as stated elsewhere in this document, we believe there are sufficient data available to conclude that the importation of *Phalaenopsis* spp. orchids in growing media from Taiwan will not result in the introduction of plant pests into the United States.

One commenter stated that the 1997 risk assessment should consider the risk posed by microbial species that may inhabit the growing media. The commenter also claimed that all risk assessments must include experiments on the genetic consequences on “founder populations” of these alien species, as genetic changes and the evolution of new recombinants as a result of small population size can be extremely important in the ability of alien species to adapt to new habitats.

The 1997 risk assessment and 2003 risk analysis for this action take into account all pests that are known to be associated with *Phalaenopsis* spp. orchids, and consider the unique risk posed by the plant imported in growing media. As stated elsewhere in this document, determinations as to whether a new agricultural commodity can be safely imported are based on the current state of knowledge and based on the information available, there is no reason to believe that the importation of *Phalaenopsis* spp. orchids in growing media from Taiwan will result in the introduction of plant pests such as the commenter has suggested (including microbial species). As such, we do not believe the experiments suggested by the commenter are necessary.

One commenter stated that if pests are excluded from risk mitigation because they are not expected to remain with the commodity during harvest and

shipping, according to APHIS guidelines, references must be cited to support the pest's inability to follow the pathway.

The risk assessments (1997 and 2003) for this action assume that all known pests are expected to follow the pathway if risk mitigation measures are not applied. However, most of the pests listed in table 2 of the 2003 risk analysis (table 1 of the 1997 risk assessment) are excluded from further consideration because of two factors: (1) The pests do not meet the Food and Agriculture Organization of United Nations (FAO) definition of a "quarantine pest" for the United States, or (2) the pests have not been specifically linked in scientific literature or APHIS interception records with orchids of the genus *Phalaenopsis*. This winnowing of the list of pests is documented in detail in section E, "Analysis of Quarantine Pests" in the 2003 risk analysis.

One commenter stated that none of the conditions required by § 319.37-8(e) address the risks presented by *Phalaenopsis* spp. orchids that have flower spikes. The commenter noted that flower spikes increase pest risk because they provide a habitat for thrips, blossom mites, blossom midges, and other blossom-infesting organisms.

There are no quarantine pests of the types cited by the commenter that have been specifically linked in scientific literature or APHIS pest interception records with orchids of the genus *Phalaenopsis*. Further, the operators of greenhouses in which plants imported under the regulations in § 319.37-8(e) are required to apply measures necessary to eliminate pest infestation of plants being grown in an approved greenhouse, including infestations by pests such as those cited by the commenter. In the event that any such quarantine pests are confirmed to be associated with *Phalaenopsis* spp. plants in the future either in program greenhouses, in scientific literature, or via inspections by APHIS, we would adopt revised conditions that address the risk posed by those pests.

One commenter stated that the World Trade Organization's Sanitary and Phytosanitary Agreement provides that members shall take into account relevant ecological and environmental conditions and quarantine or other treatment, and claimed that APHIS's 1997 risk assessment does not consider relevant ecological and environmental conditions. Specifically, the commenter noted that (1) pesticide use in other countries is less restrictive, (2) there are more chemical pesticides available, and (3) due to the long U.S. pesticide registration process, new pesticides in

other countries are years ahead of sales in the United States. The commenter claimed that because of these factors, the presence of serious pathogens is masked and pests rapidly become resistant to pesticides. The commenter claimed that the risk assessment should provide for consideration as to whether introduced plant pests will arrive as resistant strains, since control of such strains is difficult, if not impossible.

There is no specific scientific evidence that any of the quarantine pests affecting *Phalaenopsis* spp. are resistant to pesticides. Furthermore, APHIS has taken into account relevant ecological and environmental conditions in its risk analysis. We are confident that the measures required under the regulations in § 319.37-8(e) will reduce the risk posed by *Phalaenopsis* spp. plants imported from Taiwan in growing media, regardless of whether or not the pests are resistant to pesticides. Our judgment is supported by the fact that these plants have been imported bare-rooted for many years, with no known associated pest problems. Given that the plants in growing media will be subject to a number of additional requirements that do not apply to bare-rooted plants, we believe that the risk posed by all plant pests is appropriately reduced by the measures in § 319.37-8(e).

One commenter claimed that the establishment of introduced pest species is far more likely in Hawaii than in other States, as Hawaii's climate and ecology are very similar to the proposed point of origin for this plant material, Taiwan. The commenter stated that, for this reason, Hawaii's State quarantine measures have historically focused on plants coming from within the 30° parallels, yet the 1997 risk assessment for the proposed rule does not account for this. The commenter claimed that failure to address this point results in APHIS treating Hawaii's verdant ecosystems the same as those of urban environments without suitable hosts.

APHIS's 2003 risk analysis is designed to assess the risk posed by all known pests that could be introduced into the United States via *Phalaenopsis* spp. plants imported from Taiwan in growing media. The intent of the regulatory approach chosen is to ensure that pests are not introduced into the United States, regardless of the destination of the plants. Specifically, in this case, the risk assessment identifies the climatological conditions in which identified pests could survive and the estimates of consequences of introduction of those pests reflect what is known about climate-host interaction and host range for the pests. While the

consequences of the introduction of the identified pests into Hawaii differ from the consequences associated with introductions into urban environments, the risk assessment also considers introductions into a suitable habitat and introductions near suitable hosts. Nonetheless, given the application of mitigation measures that will be required under this final rule, there is a very low likelihood that an identified pest would be introduced into Hawaii via *Phalaenopsis* spp. plants imported in growing media from Taiwan.

Risk Ratings

Two commenters argued that the risk rating for climate-host interaction should be assessed as high for all pest species because plant hardiness zone 11 includes more than just the southern part of Florida, which is the only area cited in the risk assessment. The commenters noted that plant hardiness zone 11 also includes Hawaii, Guam, American Samoa, Northern Mariana Islands, U.S. Virgin Islands, Federated States of Micronesia, and Puerto Rico, and stated that given this error the 2003 risk analysis does not adequately address the potential risks posed to these States and territories.

We have corrected the 2003 risk analysis to show that plant hardiness zone 11 includes other States and territories besides Florida. However, this does not affect the risk ratings for climate-host interaction⁵ in the 2003 risk analysis. As described in APHIS's "Guidelines for Pathway-Initiated Pest Risk Assessments" (available on the Internet at <http://www.aphis.usda.gov/ppq/pracommodity/cpraguide.pdf>), risk ratings for climate-host interaction are based on the number of plant hardiness zones where a pest can establish, not the number of States that are contained within a specific plant hardiness zone. If a pest can establish in a specific U.S. plant hardiness zone, the risk assessment takes that into consideration, regardless of the number of States and territories that fall within the particular plant hardiness zone.

For the purposes of commodity risk assessments, if a pest can establish in a single plant hardiness zone (e.g., zone 11, which occurs in parts of more than one State), the risk rating for climate host-interaction is "low." If a pest can establish in two or three plant hardiness zones (e.g., zones 9, 10, and 11), the risk rating for climate-host interaction is medium. If a pest can establish in four

⁵ "Climate-host interaction" is one of several risk elements that factor into the overall "consequences of introduction" risk rating in commodity risk assessments.

or more plant hardiness zones, the risk rating for climate-host interaction is high. Given these facts, the risk ratings for climate-host interaction for each identified pest in the 2003 risk analysis are appropriate.

One commenter stated that the information given in the 2003 risk analysis does not accurately reflect the potential host range of the quarantine mealybug pest *Planococcus minor*. The commenter pointed out that the 2003 risk analysis characterizes the host range of *P. minor* (according to Cox, 1989) as including more than 30 species in over 10 families, but that according to ScaleNet (<http://www.sel.barc.usda.gov/scalenet/scalenet.htm>), the host range of *P. minor* includes more than 100 species in over 60 families, with many hosts being genera grown in the ornamental industry.

APHIS agrees that the host range of *Planococcus minor* includes many hosts, but the mitigation measures are designed to reduce or eliminate this pest from production facilities and remove it from the pathway of the importation. Given that the risk rating for host range of *Planococcus minor* is already high, we do not see any need to revise our risk analysis based on this comment, since making such a change would not affect the estimates of risk or the overall conclusions of the risk analysis.

One commenter noted that the host range for pathogens *Cylindrosporium phalaenopsis* and *Sphaerulina phalaenopsis* was assumed to be only *Phalaenopsis*. The commenter claimed that host range, if not known, should not be assumed to be restricted to orchids. The commenter stated that if only one host is known it may be because plant pathologists do not have the time or funds to undertake costly cross-inoculation studies.

As stated elsewhere in this document, APHIS makes determinations as to whether a new agricultural commodity can be safely imported based on data and research available to us. There is no evidence to suggest that the host range of the pests cited by the commenter is incorrectly rated in the risk assessment. Furthermore, "cross-inoculation" is not sufficient in this case. A complete demonstration of Koch's Postulates to establish pathogenicity is the standard for host range testing that plant pathologists have relied on since the start of modern plant pathology.

One commenter stated that the host range of *Phomopsis orchidophila* is nothing more than the extent of scientific observations and not a biological limit. The commenter noted that not all species of orchids have been

tested and not found to be a host of this pathogen, and claimed that, contrary to the 2003 risk analysis, it is very likely that other orchid genera will be hosts of *P. orchidophila* but have not been observed yet.

While APHIS agrees that many orchid genera are closely related, hybrids are common, and members of the Orchidaceae may be susceptible to a variety of pests, APHIS makes determinations as to whether a new agricultural commodity can be safely imported based on data and research available to us. There is no evidence to suggest that the host range of the pest cited by the commenter is incorrectly rated in the risk assessment. We are aware of no evidence that the importation of bare-rooted plants has led to the introduction of *Phomopsis orchidophila*, so there is no reason to suspect that the lower-risk plants produced under this system are likely to be infected.

One commenter stated that the dispersal potential of mollusks should be rated high in the 2003 risk analysis because of difficulty of finding them on the roots of orchid plants.

APHIS acknowledges that mollusks may be difficult to detect on orchid plants, which is why the overall risk rating for the mollusks *Acusta* (= *Bradybaena*) *tourranensis* and *Bradybaena* spp. is "medium." The overall rating would not change if the rating for dispersal potential was changed to medium or high, and, in any event, the risk management measures contained in § 319.37-8(e) would appropriately reduce the risk posed by mollusks including *Acusta* (= *Bradybaena*) *tourranensis* and *Bradybaena* spp. regardless of whether the overall risk rating is "medium" or "high." The ability of the measures to reduce the risk posed by mollusks, including *A. tourranensis*, is discussed in detail in the risk management section of the 2003 pest risk analysis.

One commenter stated that the dispersal potential of *Planococcus minor* should be rated as high because finished, flowering orchids have not previously moved in international commerce, and that a lack of interceptions on bare-root plants is proof of nothing. The commenter claimed that the presence of mealybugs is a major cause of rejections of potted flowering orchid plants.

Determinations as to whether a new agricultural commodity can be safely imported are based on data and research available to us. There is no evidence to suggest that the dispersal potential of the pest cited by the commenter is incorrectly rated in the risk assessment,

and the commenter provided no data to suggest otherwise. Further, potted orchids plants have not been previously allowed importation into the United States from any location. The commenter's claim that "mealybugs are a major cause of rejections of potted flowering orchid plants," pertains to interstate movements of potted plants that are not subject to the same measures as *Phalaenopsis* spp. imported from Taiwan. There are no Federal regulations governing the interstate movement of *Phalaenopsis* spp. plants.

One commenter stated that it is incorrect to assume that the spores of *S. phalaenopsis*, *P. orchidophila*, and *C. phalaenopsis* are not dispersed over long distances since spores are carried by rain splashes. The commenter stated that observation of the roadsides in Hawaii shows that spores are likely to be widely dispersed, either by rain splashes, or in the air, and claimed that the dispersal rating for these pathogens should be rated as high.

Our risk rating for the dispersal potential of *S. phalaenopsis*, *P. orchidophila*, and *C. phalaenopsis* is based on the need for both adequate rain and wind to disseminate these spores. While the anecdotal observation cited by the commenter suggests that these combined conditions occur in native U.S. habitats, the dispersal potential rating in the risk analysis also considers the dispersal potential derived from plants within greenhouses, production facilities, and interiorscapes where proper watering practices and reduced airflow are expected to limit the conditions that favor spore dispersal.

One commenter claimed the 2003 risk analysis' prediction that no more than 10 shipping containers per year are expected to be imported from Taiwan is an understatement, as permission to import this commodity into the United States is likely to be linked with an increase in production and subsequent increases in volume of imports. The commenter claimed that the pest risk concerning the quantity of product should be properly assessed as high, not low.

Our estimate that no more than 10 shipping containers per year are expected to be imported from Taiwan is based on information provided to us by Taiwan. We believe this estimate and the risk rating for "quantity imported annually" contained in 2003 risk analysis are appropriate.

Pest List

Two commenters stated that, in the 1997 risk assessment, 18 of the 26 mollusk and arthropod quarantine pests do not have species identification and

are identified to family or genus level only. The commenters claimed that the risk assessment, therefore, does not comply with APHIS's own regulatory requirement that all quarantine pests be catalogued. One of the commenters also claimed that APHIS regulations require that an evaluation be made of the history of past plant pest interceptions or introductions, but that the 1997 risk assessment does not contain such an evaluation.

The 2003 risk analysis catalogues all known pests that have been documented as being associated with *Phalaenopsis* spp. plants, and identifies all pests that are of quarantine significance. Contrary to one of the commenters' statements, the pests that were identified to family or genus level were selected because they appear in APHIS interception records for orchids; however, for the purposes of this action, APHIS did not select pests for further consideration in the risk assessment unless those specific pests were directly linked by scientific literature or pest interception records with the particular host species being imported. In this case, there is no evidence available to clearly establish that the pests identified to family or genus level are pests of *Phalaenopsis* spp. orchids.

Several commenters stated that the 1997 risk assessment is based on an incomplete catalog of quarantine pests, and a few commenters identified specific pests that they claimed APHIS should consider in its risk assessment. Another commenter submitted a list of pests of orchids that were found during Hawaiian State plant inspections.

As stated elsewhere in this document, APHIS is confident that the 2003 risk analysis considers all pests known to be associated with *Phalaenopsis* spp. orchids. We reviewed lists of pests provided by commenters and found that our list of pests is complete. The lists provided did not contribute any new quarantine pests of *Phalaenopsis* spp. orchids from Taiwan.

Several commenters claimed that only two mollusk taxa are discussed in the 2003 risk analysis, but many other species have potential to be imported with growing media, including Achatinidae (e.g., *Achatina fulica*, the giant African snail), species of *Succinea* (family Succineidae), *Meghimatium* species (slugs in the family Philomycidae), as well as various species of Subulinidae (especially species in the genus *Opeas*), Veronicellidae, Camaenidae, Helicarionidae, and Ariophantidae. The commenter claimed that many of these species are actionable by APHIS.

There is no scientific evidence that any mollusks of quarantine significance are associated with *Phalaenopsis* spp. orchids in Taiwan besides those considered in the 2003 risk analysis. Further, even if one of the mollusks cited by the commenter was associated with *Phalaenopsis* spp. orchids in Taiwan, the mitigation measures required under this final rule would be sufficient to mitigate the risk posed by the pest.

One commenter stated the 1997 pest risk assessment omits pathogenic roundworms, nematodes, phytopathogenic bacteria, and plant viruses vectored by insects, and stated that the pest risk assessment is focused only on "the organisms for which biological information is available." The commenter claimed that the 1997 risk assessment does not comply with the requirement in § 319.37-8(g)(2)(v) that any nonindigenous or native plant pest that may be able to vector another plant pest be identified and assessed. The commenter stated that undetected bacteria contained within orchids established in growing media or orchids serving as symptomless carriers of viruses are possibilities that must be addressed in the risk assessment.

As stated earlier in this document, APHIS is confident that our 1997 risk assessment and our 2003 risk analysis consider all pests known to be associated with *Phalaenopsis* spp. orchids. The commenter did not identify any specific pests for APHIS to evaluate. Further, based on the findings of our risk analysis, we believe that the measures contained in § 319.37-8(e) will effectively remove all known quarantine pests from the import pathway. APHIS does not currently have any evidence to support the conclusion that any of the pests identified in the risk analysis are vectors of animal or plant diseases, therefore, we would not be justified in regulating the importation of *Phalaenopsis* spp. plants in growing media as if they posed a risk of introducing pests that serve as vectors of animal or plant diseases.

One commenter stated that the species identifications for four fungal pathogens (*Colletotrichum phalaenopsis*, *Cylindrosporium phalaenopsis*, *Phomopsis orchidophila*, and *Sphaerulina phalaenopsis*) are incorrect, and therefore, the risk ratings for those pests are incorrect. The commenter stated that none of the species were found in the Permuterm Subject Index for 1985 to 1998 (January and February for 1998), published by the Institute for Scientific Information, and questioned how the four fungal pathogens were identified to the species

level in the 1997 risk assessment when there has been no species identification of these four fungal pathogens in the last 13 years. The commenter claimed that the four fungal pathogens should properly have been identified only to genus, the host range of these four genera should have been appraised as high, and, as a consequence, the risk rating for these four fungal pathogens should be assessed as high.

To produce the pest list for the risk assessments on *Phalaenopsis* spp. orchids from Taiwan, the risk assessors relied on published scientific literature on pests of quarantine significance from that area. The references that supported the inclusion on the list of the four fungi⁶ were from periodicals listing fungal taxa (genus, species, and author), hosts (scientific names), and their geographical distributions. One of the references was a book which was a list of plant pests reported in Taiwan (published by Taiwan's plant protection organization). Another reference was the scientific journal *Mycologia*. Fungus names and host names were provided to the species level. Fungus names and authors of names were verified by using USDA-ARS National Fungus Collection's Database on Fungi operated from Beltsville, MD. Even if the pests were not reported or intercepted recently (i.e., in the last 13 years) APHIS would still consider that they occur in that area unless official notification by Taiwan was made declaring "eradication."

One commenter stated that the mealybugs *Pseudococcus importatus* McKenzie and *Pseudococcus microcirculus* McKenzie are host specific to orchids and that *Pseudococcus orchidicola* Takahashi has a wide host range and could become a pest on many other plant species if established.

The mealybugs cited by the commenter have not been linked specifically with *Phalaenopsis* spp. orchids in any scientific literature or by interception records. For this reason, they were not specifically considered in the 1997 risk assessment or 2003 risk analysis.

One commenter stated that it is critical that risk analysis be conducted at the species level, and claimed that the extrapolation of data regarding one species across an entire genus is not acceptable. The commenter noted that, for an expert to accurately predict the potential impact of an exotic pest in the

⁶ *Colletotrichum phalaenopsidis*, which was listed in the 1997 risk assessment, was removed from further consideration because it has been synonymized with *C. gloeosporioides* (Penz.), which is widely distributed in the United States.

United States, we must know what factors are responsible for its impact (or lack of impact) in the country of origin. The commenter stated that adding species of plants within the requested genus further complicates and reduces the probability of successful prediction of risk.

In conducting the risk analysis for this action, we searched for information that linked specific pests with any plant in the genus *Phalaenopsis* in Taiwan, and we assumed that those pests found could affect any plants in the genus. We disagree that analysis needs to be conducted at the species level, since an analysis at the species level would have likely yielded far fewer pests, and a less-accurate prediction of the risk. In fact, our risk analysis would yield similar results if it were composed of a series of species-specific risk analyses; the same pests we have identified would have been cited in a series of documents, rather than in one document. If anything, the approach we have chosen may overestimate the risk posed by imports of certain species of *Phalaenopsis* spp. orchids in growing media, as identified pests may not actually be associated with the specific species and varieties of *Phalaenopsis* that may be imported under this final rule.

One commenter stated that imported orchids pose a risk of introducing an unknown virus, which has no symptoms of infection until potted *Phalaenopsis* spp. orchids are mature and stressed. The commenter claimed that a major outbreak of this virus has occurred in Japan from potted *Phalaenopsis* spp. orchids imported from Taiwan, and that the virus is well established in Taiwan. The commenter also claimed that it is likely that the virus has arrived on the mainland and in Hawaii on bare-rooted *Phalaenopsis* spp. orchids shipped from Taiwan.

As stated elsewhere in this document, we can only make determinations as to whether a new agricultural commodity can be safely imported based on available scientific evidence, and we are not aware of any evidence that supports the commenter's suggestion that a previously unknown disease or virus has been documented to affect *Phalaenopsis* spp. orchids. Given that the commenter did not identify the disease in question, we have no basis to revise our risk analysis in response to this comment.

Risk Management

General

One commenter expressed concern as to why APHIS proposed this action

given the fact that the 1997 risk assessment found that seven quarantine pests could be expected to follow the import pathway, and that the risk posed by each pest was rated "high." The commenter stated that it would take an unwise "leap of faith" to assume that the mitigation measures will reduce identified high risks to acceptable levels.

First, as explained earlier in this document, through the process of updating the risk assessment to bring it up to current standards, the baseline pest risk potential for five of the identified pests has been reassessed as "medium." Only one (*Spodoptera litura*) of the original seven identified quarantine pests remains rated as "high;" the other pest (*Colletotrichum phalaenopsidis*) listed in the 1997 risk assessment was removed from further consideration because it was synonymized with *C. gloeosporioides* (Penz.), which is widely distributed in the United States. Second, as stated elsewhere in this document, in response to commenters' concerns that the measures chosen may not mitigate the risk posed by the pests identified, we have updated the 1997 risk assessment to include a thorough discussion of how the risks posed by the pests of concern, including the risk posed by *Spodoptera litura*, are mitigated by the measures in § 319.37-8(e).

Several commenters stated that no manner of risk mitigation can be completely effective, nor can there be any guarantees that a surreptitious pest in an imported *Phalaenopsis* plant or its growing medium will not spread to other plants, including food crops and indigenous flora. One commenter questioned whether APHIS will be held accountable for any introduction of new pests that occur if the proposed rule is adopted.

As stated elsewhere in this document, while we can never be certain that our methods, regulations, and policies will exclude pests 100 percent of the time, our goal is to do just that, to the extent practicable. We are confident that the measures required under this rule will effectively remove all identified quarantine pests from the import pathway. Again, if zero tolerance for pest risk were the standard applied to international trade in agricultural products, it is likely that no country would ever be able to export an agricultural commodity to any other country. There will always be some degree of pest risk associated with the movement of agricultural products; however, as stated in the PPA, APHIS will "facilitate exports, imports, and interstate commerce in agricultural

products and other commodities that pose a risk of harboring plant pests or noxious weeds in ways that will reduce, to the extent practicable, as determined by the Secretary, the risk of dissemination of plant pests or noxious weeds."

In the highly unlikely event that a new pest is introduced into the United States as a result of the importation of *Phalaenopsis* spp. orchids from Taiwan in growing media, responsibility for managing that situation would reside with APHIS, in cooperation with States and industry.

One commenter stated that mitigation measures to control the growing environment can only be effective if enough is known about the specific diseases and pest species associated with the import in the country of origin. The commenter claimed that, in this case, the lack of available biological information raises doubts as to how effective any mitigation efforts will be.

As stated elsewhere in this document, we identified all known quarantine pests of *Phalaenopsis* spp. orchids and evaluated the ability of the mitigation measures to mitigate the risk posed by those particular pests. We believe sufficient biological information is available to determine that these plants can be safely imported into the United States.

One commenter stated that monitoring reduces pest risk by lowering the level of pest infestation, which does not negate the presence of pests. The commenter claimed that lowered pest levels are more difficult to detect upon inspection at the nursery and at the port of entry, yet the pest still has the capability to be introduced and established in a new environment.

While it is true that the mitigation measures required under this rule are intended to reduce pest introduction into the United States, the level of pest infestation of all imported plants is generally very low to begin with. While very low levels of pest infestation are harder to detect than high levels of pest infestation, we believe that the reductions in pest levels resulting from the application of the measures specified in § 319.37-8(e) will not affect our ability to prevent the introduction of plant pests into the United States. As with other systems approaches, the measures in § 319.37-8(e) provide an overlapping series of safeguards which, even if one of the measures fails, still ensures that the risk of pest introduction is reduced to the extent practicable.

One commenter stated that the mitigative effects of the requirements in § 319.37-8(e) are not sufficient to reduce the risk posed by plants imported in

growing media to the same level as that posed by bare-rooted plants or plants imported on other approved epiphytic growing media.

As stated in our proposed rule, and based on the findings of the 2003 risk analysis, we believe the mitigation measures required under this rule are sufficient to reduce the risk posed by *Phalaenopsis* spp. orchids imported in growing media to the same level, or a lower level, than that posed by bare-rooted plants. Plants that are currently allowed to be imported with bare roots are subject only to inspection at the port of entry, while plants imported in media under the conditions of § 319.37–8(e) are subject to additional conditions that reduce the risk that those plants could become infested with pests prior to export to the United States or introduce pests into the United States.

One commenter claimed that the success of the proposed rule depends upon the cooperation and enforcement of the exporting country, which in many cases simply are inadequate or underfunded. The commenter claimed that compliance with the conditions spelled out in § 319.37–8(e) could only be assured if an inspector were on-site every hour of every day in every “certified” greenhouse—and perhaps not even then—and stated that signing an agreement does not guarantee that it will be followed. The commenter stated that APHIS should take extra precautions to enter only into agreements that have a high likelihood of compliance and claimed that there is no such assurance in this case.

The regulations in § 319.37–8 require that for orchid producers of Taiwan to export *Phalaenopsis* spp. orchids to the United States, there must be an agreement in place that stipulates provisions for how the regulations will be enforced. Furthermore, each grower who wishes to export to the United States under the regulations must enter into an agreement with the plant protection organization of Taiwan whereby he or she must agree to comply with the provisions of the regulations in § 319.37–8 and to allow APHIS inspectors, and representatives of Taiwan’s plant protection service, access to the growing facility as necessary to monitor compliance with the provisions of this section.

We disagree with the commenter that these agreements do not provide for verification that the conditions specified in the regulations will be followed. As noted elsewhere in this document, APHIS monitors production sites to ensure compliance with the regulations. If the regulations are not followed, inspections of the production sites and

inspections of the imported plants at the ports of entry in the United States will reveal as much, and APHIS may hold all imports until an investigation can be completed and appropriate measures initiated, including stopping imports from a specific producer or shutting down the entire program, if the circumstances show that such an action is warranted. For this reason, the plant protection organization of Taiwan and growers have an economic incentive to follow the regulations.

Two commenters stated that none of the conditions required by § 319.37–8(e) mitigates the risk of contamination of plants in growing media by fungal spores. The commenters stated that while the 1997 risk assessment identifies 12 fungal pests of *Phalaenopsis* spp. orchids, 3 of these fungi have teleomorphic or sexual stages, which produce spores that will contaminate growing media, be discharged into air currents, and quickly travel throughout a greenhouse. The commenter stated that since fungal spores are microscopic in size, they cannot be detected via inspection.

The fact that plants will be required to be grown in greenhouses for a minimum of 4 months, propagated from clean mother stock, and watered with clean water sources reduces the risk that undetected infections will occur. Many fungal spores are able to travel by air and water, but it is unlikely that the spores will gain entry into a greenhouse, spread to plants intended for export, and infect the plants, and that the subsequent symptoms of infection will escape detection during both the 4-month pre-export quarantine period and port of entry inspection. APHIS agrees that unlike leaf-spot symptoms, microscopic fungal spores are not likely to be detected via inspection, but the risk analysis accounts for this within its risk element rating for the ability of the pest to evade detection. If greenhouses are contaminated by fungal spores, plants are likely to show symptoms or signs of infection prior to export to the United States, or at an inspection station in the United States. If fungal infection is detected in the greenhouse, surrounding plants would be removed from the greenhouse and remedial measures would be applied to ensure that the fungal spores do not reinfest clean plants. If fungal infection is detected at the port of entry into the United States, the plants would be refused entry, and APHIS may hold all imports until an investigation can be completed and appropriate measures initiated, including stopping imports from a specific producer or shutting down the entire program, if the

circumstances show that such an action is warranted.

Furthermore, *Phalaenopsis* spp. plants have been imported bare-rooted for years, subject simply to inspection at a port of entry. Bare-rooted plants are more likely to be infected with a fungal pest than plants grown under the stringent conditions of § 319.37–8(e), yet there have been no major problems with *Phalaenopsis* spp. plants imported with bare roots.

One commenter stated that APHIS should employ postentry risk management to reduce the risk posed by *Phalaenopsis* imported in growing media. The commenter claimed that in this case, an effective post-harvest disinfection treatment is needed for *Thrips palmi*.

As stated elsewhere in this document, we are confident that the measures contained in § 319.37–8(e) will mitigate the risk posed by orchids of the genus *Phalaenopsis* imported in growing media from Taiwan. The effectiveness of these measures renders postentry risk management other than inspection unnecessary. *Thrips palmi* has not been documented as being specifically associated with *Phalaenopsis* spp. plants. Should *Thrips palmi* or any other quarantine-significant pest be detected in shipments of *Phalaenopsis* spp. plants in the future, or in the event that such a pest is linked to *Phalaenopsis* in scientific literature, we may reevaluate whether the measures we have chosen mitigate the risk posed by the particular pests discovered.

One commenter claimed that there is a lack of plant virus control by growers in Taiwan because they do not sterilize tools between plants.

Our 2003 risk analysis did not identify any quarantine-significant viruses that are associated with *Phalaenopsis* spp. orchids in Taiwan. Nonetheless, growers will be required to perform specific sanitary measures under the requirements of the rule and the bilateral workplan that APHIS enters into with the plant protection organization of Taiwan.⁷ Greenhouse

⁷ A bilateral workplan is a written agreement between APHIS and a foreign plant protection organization that clarifies the responsibilities of each organization in enforcing APHIS regulations that pertain to preclearance export programs. The workplan also clarifies how specific aspects of the program operate, and may include directives as to how certain pest problems must be remedied. The workplan goes into more detail regarding the day to day operation of the programs than do the regulations in the CFR, and, because of their separation from the CFR, workplans are flexible and can be revised as needed based on changing circumstances in the exporting country. The workplan is enforceable, and failure of the exporting country to abide by the conditions of the

operating procedures will specify that sterilization of tools between plants must occur.

One commenter stated that laboratory testing is necessary to confirm the absence of pests such as latent viruses and nematodes, and that it is necessary to keep a log of pesticide applications that indicates pesticides used, dosage, and date of application.

Based on the findings of the 2003 risk analysis, we believe there is no basis to require laboratory testing of plants intended for export to the United States. We are confident that the measures required under the regulations are sufficient to address the risk posed by *Phalaenopsis* spp. orchids from Taiwan. Further, the bilateral workplan for the export program will require growers to keep a log of pesticide applications as suggested by the commenter. This type of requirement is standard in APHIS's plants in growing media import programs.

Two commenters claimed that pest control during the growing period and an efficacious disinfestation treatment prior to shipment are necessary to ensure pest-free orchid plants. The commenters claimed that the systems approach should include an effective postproduction treatment.

Based on the findings of the 2003 risk analysis, we believe there is no basis to require plants intended for export to the United States to be subjected to a specific post-harvest treatment regimen. Further, it is the responsibility of the growers of these plants in the exporting country to apply pesticides and fungicides as necessary to ensure that plants are pest-free.

One commenter claimed that the program requirements will not address the dispersal potential of identified mollusk pests, and claimed that 46 cm benches are not high enough. The commenter claimed that, in Hawaii, slugs and snails easily travel 90 cm to infest plants on benches of that height.

If the height of benches were the only risk-mitigating factor to protect against the infestation of *Phalaenopsis* spp. orchids by mollusks (*i.e.*, if plants were not grown in greenhouses subject to the requirements of § 319.37–8(e)), then we would agree with the commenter that the risk posed by those pests may have been too great. However, plants are subject to a series of mitigation measures intended to keep mollusks out of the greenhouse, and, in the unlikely event that they enter the greenhouse, they are subject to additional control measures. Should we find evidence that

mollusks are present in program greenhouses, we may require additional risk mitigation for those pests, such as installing copper flashing to vertical structural components.

One commenter claimed that the regulations should include explicit requirements for greenhouse sanitation such as those imposed on imported geraniums.

The regulations do require that plants be grown in a greenhouse in which sanitary procedures sufficient to exclude plant pests and diseases are always applied. The bilateral workplan for the program will specify measures that are believed by APHIS to be necessary to meet this requirement.

One commenter stated that the regulations should include a requirement that prohibits packing at night under lights and packing outside of the pest exclusionary greenhouse.

The bilateral workplan will require plants to be packed inside the greenhouse. We see no need to require that plants not be packed at night since plants will be packed in greenhouses that exclude quarantine pests.

Inspection at the Port of Entry

One commenter stated that inspection should be considered the first line of defense, and not considered to be a "catch all" for pests that are able to exist on the plant in potting media despite proposed safeguards. The commenter stated that Hawaii's pest interceptions on orchid plants from 1988 to 1998 indicate that it is difficult to intercept pests on orchid plants, as evidenced by the fact that, only later, while under Hawaii's mandatory 60-day quarantine in secure quarantine facilities, did pests develop into larger populations that became observable, or develop to a detectable state, or produce signs (*i.e.*, exit holes) that could be detected. The commenter stated that the Hawaii Department of Agriculture has intercepted a large number of pests on bare-rooted orchids, and expressed concern as to whether those pests could be found on potted materials when inspectors from two separate agencies (foreign and APHIS) could not find these pests on bare-rooted materials.

It is significant to note that inspection is the last in a series of safeguards required under this final rule to ensure that *Phalaenopsis* spp. orchids imported in growing media do not introduce plant pests into the United States, including Hawaii. It is also significant to note that the pests detected by Hawaii's inspectors were found on bare-rooted plants, which, in contrast to plants imported under this final rule, are allowed importation subject only to

inspection. As a practical matter, under this rule, inspection at the port of entry is not the "first line of defense," since it is the last phytosanitary measure applied to *Phalaenopsis* spp. from Taiwan. As such, it is the last remaining means by which to ensure, to the extent possible, that plants are pest-free prior to release into domestic commerce. The various other measures required under § 319.37–8(e) are intended to ensure that the plants are free of pests prior to arrival at a port of entry into the United States.

One commenter stated that inspection at the port of entry is not an effective mitigation measure, especially given the list of pests that have become established in the United States in recent years, apparently associated with the living plant or cut flower/decorative plant material pathways.

APHIS believes that inspection, as a mitigation measure, is more effective in some cases than others. For instance, if a pest associated with a commodity is large and not mobile, we would likely consider inspection sufficient mitigation for the risk posed by the pest. In a case where a pest is difficult to detect via inspection, we would employ inspection in combination with other measures that reduce the likelihood that the plants being inspected are infested with the pest. In this case, the regulations in § 319.37–8(e) place several restrictions on plants imported under this final rule. Inspection is just one in a series of measures that, taken together, reduce the likelihood that plants released into U.S. commerce will contain pests that could harm U.S. agriculture or the natural environment.

One commenter questioned at what rate orchids would be inspected upon arrival at U.S. ports of entry.

For at least the first year of the program, APHIS would inspect a large percentage (greater than 50 percent) of each shipment of *Phalaenopsis* spp. orchids imported in growing media from Taiwan. In subsequent years, the rate of sampling may increase or decrease depending on the results of previous inspections (*i.e.*, based on how well the program appears to be working). In the event that pests are found, APHIS may hold all imports until an investigation can be completed and appropriate measures initiated, including stopping imports from a specific producer or shutting down the entire program, if the circumstances show that such an action is warranted.

Screening and Doors

Three commenters stated that screens of 0.6 mm mesh are inadequate to keep out certain important pests. One of the

workplan is grounds for suspension, and possibly cancellation, of the export program.

commenters claimed that the melon aphid and the silverleaf whitefly will pass through screens with mesh sizes of 0.281 mm, and that quarantine pests of *Phalaenopsis* spp. orchids, including *Dichromothrips* spp., *Frankliniella intonsa*, *Frankliniella schultzei*, and *Thrips palmi* will not be excluded with hole sizes as small as 0.073 mm. The commenter also stated that the required 0.6 mm opening will not exclude aphids, whiteflies, thrips, and crawlers of mealybug, including *Planococcus minor*, soft scales, and armored scales, including *Parlatoria* spp., as well as young nymphal stages of leafhoppers. The commenter noted that *Dichromothrips* spp., *Frankliniella intonsa*, *Frankliniella schultzei*, *Planococcus minor*, *Parlatoria* spp., and *Thrips palmi* are identified quarantine pests of *Phalaenopsis* spp. orchids, and that *Planococcus minor* is one of the identified quarantine pests of *Phalaenopsis* spp. orchids that is most likely to travel with the plant and has the greatest potential for economic damage.

The screen mesh size required under the regulations in § 319.37–8(e) is sufficient to exclude all life stages of all quarantine pests of *Phalaenopsis* spp. orchids identified in our risk analysis, except for the crawler stage of *Planococcus minor*. That said, the likelihood that *P. minor* could invade a greenhouse and infest *Phalaenopsis* grown in media is very low. The crawler, which is not highly mobile, would have to either crawl through a screen, up a bench, and onto plants'—or be blown in the air through a screen and fall directly on a plant below. Nonetheless, even if *P. minor* invaded a greenhouse, it would likely be detected during greenhouse or port of entry inspections, thus greatly reducing the chance that it could be introduced into the United States via imported *Phalaenopsis* spp. plants.

One commenter stated that equipping entryways with automatic closing doors is of little protection, unless double door systems are used and the production areas are under positive pressure. Another commenter stated that during the short period when a door is opened, flying insects, such as adults of the nocturnal, high-risk pest cluster caterpillar (*Spodoptera litura*) are capable of entering the greenhouse, especially if it is lighted. The commenter claimed that if a mated female moth entered the greenhouse, she would be capable of laying fertile eggs on potted orchids.

APHIS acknowledges that pests may be able to gain access to greenhouses, but it is the responsibility of the person

growing the plants to ensure that does not happen. Regular inspections of growing premises are intended to ensure that plants are grown in a pest-free environment, and our past experience with this type of program provides evidence that this approach is successful.

Regarding *Spodoptera litura* specifically: If a mated adult female entered the greenhouse and laid eggs on plants, given that those eggs are relatively large and are typically laid in one location, the eggs would likely be detected by a simple visual inspection. If the eggs went undetected and hatched, the damage caused by the larvae would be detectable during the growing period or at the port of entry.

One commenter stated that ants and other pests that move underground will not be excluded by mesh screens and automatic doors. The commenter stated that ants intercepted on bare-root orchids in the past are generalist predators and, if established, some species would most certainly become pests in urban, agricultural, and natural environments. The commenter cited, as an example, the introduced ant *Linepithema humile* (Mayr), which has had a devastating effect on many native and endangered plant and animal species in Hawaii.

We are not aware of how the ant *Linepithema humile* (Mayr) was introduced into Hawaii, but we have no reason to believe that its introduction had anything to do with imports of plants in growing media, or imports of orchids specifically. Ants that are associated with vegetation are worker ants, which are not generally reproductive, and which therefore present little risk of establishment if imported into the United States. Ants generally only pose a risk of becoming established in the United States if a queen were imported in a plant in growing media. Given the fact that signs of ant infestation of *Phalaenopsis* spp. plants in growing media would be relatively obvious in the greenhouse in Taiwan and at the port of entry into the United States, and given the fact that media must be safeguarded against pest introduction prior to entry into the greenhouse, we do not believe the risks posed by ants require additional risk mitigation. Again, if pests, including ants, are detected in a program greenhouse, remedial measures must be applied, and the infestation must be eliminated.

One commenter stated that rusts, such as *Coleosporium merillii*, *Uromyces* spp., *Puccinia* spp., and *Uredo* spp. have spores able to penetrate through mesh screens.

The commenter is correct that rust fungi have spores that could penetrate mesh screens, however, according to our risk analysis, there are no known quarantine significant rusts that are associated with *Phalaenopsis* spp. orchids in Taiwan. In general, greenhouse mesh screens are not intended to prevent the entry of fungal spores, although the decrease in air flow associated with screening may provide some benefits. The exclusion of diseases begins with the use of only clean stock plants and media, and continues via the rapid detection and removal of symptomatic plant tissues. Other mitigation measures that are part of good plant production practices, such as sanitation and proper watering, are expected to be more effective in reducing or eliminating diseases than manipulation of the mesh screen size.

One commenter questioned whether 0.8 mm mesh size screens would be sufficient, rather than 0.6 mm screens.

Given the pests known to be associated with *Phalaenopsis* spp. plants in Taiwan, and the fact that other APHIS plants in growing media programs have been successful in keeping plants pest-free using 0.6 mm screens, we believe that size mesh is necessary.

Greenhouse Inspections and Pest Freedom

One commenter stated that the requirement that a greenhouse be “found free from evidence of plant pests and diseases * * * no more than 30 days prior to the date of export to the United States” is inadequate. The commenter stated that, during that period of time, any number of pests could become established and develop in the greenhouse, and then be imported into the United States.

The requirement that plants be inspected no more than 30 days prior to export grew out of the practical reality of inspecting the plants. Greenhouses ship plants periodically—sometimes several different shipments in one month—and it is often not feasible for inspectors to visit greenhouses and perform inspections for each shipment of plants during the day or week they are shipped. Rather, the inspectors inspect and approve plants for export within the next 30 days, which allows the owner of the plants to ship certified plants as needed during that time frame. If plants that are inspected and certified are not shipped within 30 days, they must be reinspected. While it is possible that plants could become infested with a pest during the short time between inspection and shipment from the greenhouse, it is highly unlikely, as

shown by our years of experience in allowing imports of plants in growing media under the regulations in § 319.37–8(e). Furthermore, as noted earlier in this document, it is in the interest of producers to ship only pest-free plants, or else risk that the plants be refused entry into the United States upon inspection at a plant inspection station.

Two commenters stated that even under near-optimal conditions of chemical pest control, it is unlikely that a greenhouse can be kept pest-free over extended periods of time.

In section D of the risk management portion of the 2003 risk analysis, we describe the historical performance of existing programs for the export to the United States of plants in growing media. Our review of those programs found that during the approximately 200 inspectional site visits made to greenhouses participating in plants in growing media programs, no pests were found. While it is possible that pests could infest program greenhouses, the regulations in § 319.37–8(e) and the bilateral workplans for such export programs are designed to ensure that plants are not infested with pests of quarantine significance.

One commenter questioned how often greenhouses would be inspected in Taiwan.

Approved greenhouses will be inspected at least monthly by officials of Taiwan's plant protection organization to monitor for compliance with the regulations, and APHIS personnel will make multiple inspections during the first year of the program, followed by at least one inspection per year in subsequent years.

Risk Associated With Growing Media

One commenter stated that fungal plant pathogens of *Phalaenopsis* orchids, including *Colletotrichum phalaenopsis*, *Cylindrosporium phalaenopsis*, *Phomopsis orchidophila*, and *Sphaerulina phalaenopsis*, could be introduced into the United States unless the media and pots were removed to expose roots.

We disagree that it will be necessary to remove growing media from plants to detect these fungal diseases,⁸ which can cause leaf-spotting or canker symptoms on affected plant parts. These are not primarily root-affecting fungi. Orchids routinely produce roots that protrude from associated media, and these will be visible to inspectors. Furthermore,

⁸ *Colletotrichum phalaenopsis* was removed from further consideration in the 2003 risk analysis because it has been synonymized with *C. gloeosporioides* (Penz.), which is widely distributed in the United States.

inspectors at APHIS's plant inspection stations (into which all plants in growing media must be imported) do remove growing media from plants to inspect their root systems for soil or other pests.

One commenter stated that the proposal, if adopted, will create another avenue for the illegal importation of wild-collected plants, because it will inhibit inspection of the root systems of imported plants. The commenter stated that one of the major factors in determining whether a plant is wild-collected instead of artificially propagated is the nature and condition of the root system.

As stated elsewhere in this document, it is in the interest of the exporting country to ensure that the conditions of the regulations are met. Failure to abide by the conditions could result in rejection of shipments of plants, as well as suspension of the program. As such, Taiwan's plant protection organization is responsible for verifying that plants are artificially propagated and in compliance with the program—otherwise Taiwan risks suspension of the program. If APHIS finds one quarantine pest in a shipment of imported plants, we may hold all imports until an investigation can be completed and appropriate measures initiated, including stopping imports from a specific producer or shutting down the entire program, if the circumstances show that such an action is warranted. We wish to make it clear that we will accept certifications made by the plant protection organization of Taiwan as true unless there is a reason to believe that certifications are being made improperly. Regardless, as stated in response to the previous comment, inspectors at APHIS's plant inspection stations (into which all plants in growing media must be imported) do remove growing media from plants to inspect their root systems.

Several commenters stated that increased risk of pest introduction comes not from *Phalaenopsis* spp. plants but from the medium in which they are shipped, which, they alleged, the 1997 risk assessment did not consider. The commenters stated that the likelihood of importing pests and diseases is greatly increased where plants are already established in sphagnum, or any other growing medium, as bare root plants allow a more thorough inspection of plant roots and easier detection of any pests or diseases which may be present. One commenter stated that the mounding of media around the bases of plants obscures not only the roots but also the lower leaf axils where additional pests

occur. The commenter stated that the medium also provides harborage for dormant pest stages and may delay pest and disease symptoms. One commenter stated that insects and other pests that feed on roots are found in substrates during part of their life cycle may not be noticed by the APHIS inspector during inspection. The commenters also stated that there may be an unacceptable risk of pest introduction associated with even bare-root orchids.

The 1997 risk assessment and 2003 risk analysis take into account the fact that growing media has an effect on pests' ability to find suitable shelter and an effect on the ability of inspectors to detect certain pests that may be obscured by growing media. Specifically, the risk assessment took these factors into consideration in its estimates of the likelihood of introduction (see table 6 and preceding text in the 2003 risk analysis). The risk posed by growing media in and of itself was not considered in the risk assessment, because the specific types of growing media are already approved and listed in § 319.37–8(e)(1) of the regulations, and have been successfully imported into the United States for years.⁹ Such media does not present a risk of pest introduction into the United States. In particular, sphagnum moss, which APHIS expects to be the growing medium of choice for growers in Taiwan, is exported in bulk and in association with plants imported under the regulations in § 319.37–8(e) from countries all over the world.

Based on many years of inspections of bare-rooted *Phalaenopsis* spp. orchids, we do not believe that it is necessary to impose any additional restrictions on their entry. Our interception records shows that, since 1988, there have been fewer than 50 interceptions of quarantine significant pests on orchids of the genus *Phalaenopsis* from Taiwan. This number compares favorably with numbers of interceptions for other imported plants. It suggests that the risk posed by these plants is low, and that pests are generally not associated with *Phalaenopsis* spp. orchids.

Several commenters claimed that the importation of *Phyllosticta* or *Guignardia* species in vandaceous orchids imported from southeast Asia is already happening, and that potting media will only make it worse.

There is no interception evidence that either of the pests cited by the commenter is associated with *Phalaenopsis* spp. orchids in Taiwan or would be associated with imports of

⁹ See section D of the risk management section of the 2003 risk analysis for additional detail.

those plants in growing media. Furthermore, there is no evidence that the unidentified *Phyllosticta* and *Guignardia* species are even of quarantine concern on vandaceous orchids.

Several commenters claimed that immature stages of biting midges (Ceratopoginidae = *Culicoides* spp., *Forcipomyia* spp.) that are present in Taiwan could be imported in sphagnum moss. The commenters claimed that given the size of the midges, the mitigation measures required by the rule cannot prevent them from entering greenhouses where plants intended for export to the United States are grown. The commenters claimed the midges can vector arboviruses, filarial worms, other parasites, and in addition, could be major pests to humans in areas such as Hawaii which have climatic conditions to support their survival.

APHIS believes that there is a very low likelihood that biting midges that can vector animal diseases will be imported in *Phalaenopsis* spp. plants from Taiwan. First, the growing medium in which the plants are potted is very unlikely to contain midges when it enters the greenhouse, and even if it did, under the regulations, in § 319.37–8(e)(2)(ii) measures must be applied to ensure that pests are excluded from the greenhouse, and that action is taken against pests that do enter the greenhouse. While the regulations do not require any specific pest-control measures such as pesticide applications to be applied in the greenhouse, it is the responsibility of the greenhouse owner to ensure that plants exported to the United States are free of all pests, including biting midges. Furthermore, it is the responsibility of Taiwan's plant protection organization to verify that growers follow the conditions of the regulations. This involves ensuring that the growing media (likely sphagnum moss imported from another country) is safeguarded against pest infestation at all times prior to entry of the media into the greenhouse, and that, in the highly unlikely event that pests enter the greenhouse, they are dealt with accordingly.

Furthermore, sphagnum moss has been imported into the United States for years, and there is no evidence to suggest that media used for commercial plant production has been or will be a pathway for entry of biting midges into the United States.

One commenter questioned whether sphagnum moss must be sterilized or pasteurized, and claimed that the regulations should include such a requirement.

Based on years of importations and inspections of various types of approved growing media, including sphagnum moss, we are confident that approved media, by virtue of their natural composition, are inhospitable to most pest species. Further, under the conditions of the bilateral workplan for this program, media will have to be safeguarded against pest infestation prior to entry into the greenhouse.

One commenter claimed that snail eggs may be laid in growing media and are not visible to inspectors.

While it is possible to detect the presence of snail eggs visually under certain circumstances, it is highly unlikely, given the measures required under § 319.37–8(e), that quarantine significant snails will have access to plants.

Several commenters expressed confusion over what type of growing medium will be used. The commenters stated that the proposed rule discusses sphagnum moss in several places but speaks of "other approved media" such as coconut fiber and tree fern. The commenters claimed that the pest risk associated with each medium will vary based on various factors, including the source of the medium, its age, and state of decomposition, among others.

Under this final rule, plants may be imported in any approved growing medium listed in § 319.37–8(e)(1), although sphagnum moss will likely be the most commonly used type. The following growing media are also approved: Baked expanded clay pellets, cork, glass wool, organic and inorganic fibers, peat, perlite, polymer stabilized starch, plastic particles, phenol formaldehyde, polyethylene, polystyrene, polyurethane, rock wool, sphagnum moss, ureaformaldehyde, vermiculite, or volcanic rock, or any combination of these media. Growing media must not have been previously used.

Several commenters expressed concern that the importation of *Phalaenopsis* spp. orchids in sphagnum moss could have serious ecological consequences in Hawaii. One commenter stated that scientists have found that one transplanted *Sphagnum* species that is native to Hawaii has spread vigorously when moved out of its natural habitat. The commenter expressed concern that this could happen with imported species of sphagnum as well. Another commenter stated that sphagnum moss used domestically as a growing medium consistently contains damaging insects and noxious weeds.

Sphagnum moss is an approved growing medium and is listed in

§ 319.37–8(e)(1). There are already nine genera and one order of plants that may be imported into any U.S. State (including Hawaii) in sphagnum moss. Ferns from Taiwan are known to be imported in sphagnum moss, and are already eligible for importation into Hawaii. At present, we have no reason to believe that unused sphagnum moss that is produced according to standard industry practice presents any risk of pest introduction in and of itself, nor does it behave as a weed. Nonetheless, growing media are subject to inspection at any point in the production process, from rooting to importation into the United States, to ensure against pest infestation.

One commenter stated that when sphagnum is of low quality or advancing age, it proves to be an attractive home for all manner of insect and arthropod life as well as fungi, algae, etc. The commenter stated that, while these plants would not be coming from the wild, it is disingenuous to suggest that the addition of a growing medium will not increase the risk of pest introduction.

As stated elsewhere in this document, the regulations require that sphagnum moss used as growing media must not have been previously used. We do not deny that the pest risk posed by bare-rooted *Phalaenopsis* plants would be lower than that posed by *Phalaenopsis* imported in growing media if the plants in media were not subject to the mitigation measures in § 319.37–8(e). However, when the mitigation measures are applied to such plants, the risk they pose drops to a level equal to or below that posed by bare-rooted plants. Plants imported in growing media are subject to many additional requirements that do not apply to bare-rooted plants. These requirements are designed to mitigate the added risk posed by the addition of growing media. As stated elsewhere in this document, the risk management section of the 2003 risk analysis provides a detailed discussion of how the measures ensure that pests are removed from the import pathway.

One commenter stated that the current plants in growing media program is very limited as to country of origin, and that plants grown under the existing program have failed to guard against pest intrusion. The commenter stated that citing the debatable success of the existing program is misleading. The commenter stated that APHIS failed to consider that the first five genera approved for importation in growing media are all short term crops compared to the genera proposed in 1993 (*Alstroemeria*, *Ananas*, *Anthurium*, and *Nidularium*) and claimed that APHIS

also did not consider that the first five genera came from countries north of 30° north latitude while noting that the genera proposed in 1993 and *Phalaenopsis* (as proposed) may be imported from any foreign country. The commenter stated that short term crops grown in northern areas present a lower pest risk than what was proposed in 1993 or what is being considered in the proposed rule.

As stated elsewhere in this document, the risk analysis conducted in support of this rulemaking action assesses the risk posed by known quarantine pests of *Phalaenopsis* spp. orchids that are present in Taiwan. The findings of the risk analysis have led the Secretary to determine that *Phalaenopsis* spp. orchids imported in growing media from Taiwan can be safely imported into the United States. Furthermore, the risk analysis is independent of previous analyses of other plants in growing media, though we do cite the success of the program as evidence that the program is effective in producing pest-free plants for export to the United States.

One commenter stated that a potted plant is difficult to inspect because unlike bare-root plants, a potted plant cannot be turned upside down or turned in such a way to make it easier for the inspector to see tiny signs of infestations, such as entry holes on the plant's stems. The commenter stated that entry holes of weevils and other internal feeders are difficult to detect because the holes are generally small and may be hidden in protected areas of the plants, such as where the leaf and stem meet, or on the stem near the media level.

A plant potted in growing media can be removed from media such that the roots can be inspected for signs of pest infestation. This is common practice in APHIS's plant inspection stations, and will be practiced as part of the inspection of plants imported under this final rule. Additionally, inspectors do inspect all accessible parts of the plant, including the leaf and root interface. Furthermore, while inspection at the port of entry is the last mitigation measure employed under the growing media program, it is only one in a series of measures that are collectively designed to reduce the risk that quarantine pests that are known to infest *Phalaenopsis* spp. orchids could be introduced into the United States.

One commenter stated that, in the 1997 risk assessment for the proposed rule, only the weediness potential of *Phalaenopsis* spp. orchids was assessed, and that there was no assessment of the weediness potential of sphagnum moss.

The commenter stated that this oversight renders the proposal arbitrary, capricious, and an abuse of discretion, because sphagnum moss can contain viable weed seeds which may sprout and grow after the orchids are potted.

The commenter is correct that the 1997 risk assessment did not assess the weediness potential of sphagnum moss itself, as sphagnum moss is allowed to be imported without restriction from all parts of the world, as is the case with bare-rooted *Phalaenopsis* plants. As such, we conducted the 1997 risk assessment in accordance with our regulations to specifically address the unique risk posed by *Phalaenopsis* plants imported in growing media—that is, the risk caused by the interaction of plant and the media which, in this case, is tied to the fact that growing media increases the risk posed by an imported plant by providing harborage for pests that would not likely be present on bare-root plants, or that would be easier to inspect for if the plants were imported with bare roots. The measures contained in § 319.37–8(e) are designed to mitigate the risk posed by those pests, as described and evaluated in the risk management portion of the 2003 risk analysis.

One commenter stated that inspection of growing media is necessary to ensure that snails are not present in imported orchids, and alleged the current regulations do not provide for such inspection. The commenter stated that snails, including the quarantine pest *Bradybaena* spp., are known to occur on roots of potted orchids, and that others have observed *Sublina octona* and the bush snail, *Bradybena similaris*, occurring on orchids in Hawaii and stunting potted orchid plants. The commenter stated that interception records from the Hawaii Department of Agriculture report snails even on bare-rooted *Phalaenopsis* spp. orchids from Taiwan.

The risk analysis identified only one quarantine pest of *Phalaenopsis* spp. orchids in Taiwan that is a mollusk: *Acusta tourranensis*.¹⁰ The risk posed by this snail and related pests is mitigated by the measures contained in § 319.37–8(e), as explained in detail in the risk management portion of the 2003 risk analysis.

One commenter stated that the greenhouses in which *Phalaenopsis* spp. orchids would be grown are likely to be invaded by *Frankliniella schultzei*, *Spodoptera litura*, *Thrips palmi*, and other quarantine pests, and that

¹⁰ For purposes of the 2003 risk analysis, *Acusta* (= *Bradybaena*) *tourranensis* and *Bradybaena* spp. are analyzed together.

Phalaenopsis spp. orchids potted in sphagnum moss provide an excellent habitat for the pupal or resting stage of those pests, which could pupate in the growing media, thereby infesting it.

There are no quarantine significant thrips that have been confirmed to be associated with *Phalaenopsis* spp. plants in Taiwan. We have responded to the commenter's concern regarding the risk posed by *S. litura* earlier in this document.

Preemption

Several commenters expressed concern or confusion as to whether the proposed regulations would preempt Hawaiian quarantine restrictions on the importation of *Phalaenopsis* spp. orchids from Taiwan. One commenter requested that the rule include a special exemption for Hawaii and stated that all orchid plants imported into Hawaii should still be subject to the mandatory 60-day quarantine. Two commenters stated that such an exemption would not suffice, as plants which contain pests could be imported into the mainland and then be moved interstate into Hawaii. The Department of Agriculture of the State of Hawaii (HDOA) commented on the proposal, and specifically objected to the adoption of the rule, which it believes would increase the risk of introducing more plant pests in the State. HDOA stated that a number of the pests do not yet occur in Hawaii, but have been documented to have passed through APHIS inspection in Hawaii only to be stopped by a more thorough Hawaii Department of Agriculture quarantine requirement.

This final rule preempts applicable State regulations, as the Federal Government is responsible for regulating foreign and interstate commerce. States have authority to regulate intrastate commerce. In this case, we do not believe it is necessary to provide an exception for the rule for Hawaii, given the fact that plants imported in growing media are subject to the requirements of § 319.37–8(e), these plants present a level of pest risk equal to or below that posed by bare-rooted plants.

HDOA also stated that Federal preemption limits States' ability to protect themselves from risks that the Federal government does not acknowledge. HDOA expressed concern as to whether APHIS is facilitating international trade at the expense of its mission to prevent the introduction or dissemination of pests.

APHIS is charged with regulating the importation and interstate movement of plants and plant products according to

the best available science. Our authority does not allow us to make exceptions to our regulatory policy unless they are science-based. In this case, we are confident that this final rule is based on sound scientific data.

One commenter stated that plants imported into Hawaii should be subject to a mandatory 60-day quarantine.

APHIS disagrees with the commenter that any further risk management is necessary beyond what we originally proposed. The 2003 risk analysis shows that the risks posed by the identified pests are mitigated by the measures contained in § 319.37–8(e).

Safeguarding Report

One commenter noted that at the time comments were being accepted on the proposed rule, the National Plant Board and APHIS were initiating a review of U.S. pest safeguarding systems. The commenter stated that it would be premature to make further modifications to Quarantine 37 pending the results of that review, and suggested that APHIS withdraw the proposal pending completion of that review, and re-propose it in light of future results.

The “Safeguarding American Plant Resources” report was completed in July 1999, and efforts to implement its recommendations are ongoing. The report is posted on the Internet at <http://www.safeguarding.org/>. The report did not contain any recommendations specific to the importation of plants in growing media, though it did recommend that APHIS consider revisions to Quarantine 37 under which decisions to allow the importation of propagative material would be made based on risk analysis as is the case with Quarantine 56 (7 CFR 319.56 through 319.56–8). Given that plants in growing media are the only propagative materials that are always subject to risk analysis as a condition of determining their enterability, we see no reason to further delay modifications to the regulations in § 319.37–8.

OMB Designation of Significance

One commenter stated that the proposed rule would result in increased inspection and regulatory activity by APHIS and that the conclusion that the rule is “not significant for the purposes of Executive Order 12866” is incorrect. The commenter claimed that review by the Office of Management and Budget (OMB) is necessary.

The determination that the proposed rule was “not significant for the purposes of Executive Order 12866” was made by OMB. This final rule has been determined to be significant for the

purposes of Executive Order 12866 and, therefore, has been reviewed by OMB.

Economics

General

Several commenters claimed that adoption of this rule would result in unfair “dumping” of cheap imports in the United States and that there must be assurances that such dumping will not occur.

As stated elsewhere in this document, determinations as to whether a new agricultural commodity can be safely imported are based on the findings of risk analysis. The regulation of “dumping” is administered by (1) the U.S. Department of Commerce (with respect to the determination of dumping margins), and (2) the International Trade Commission (with respect to determinations of injury). APHIS has no authority to adopt regulations to guard against “dumping” of imported plants.

Several commenters claimed that *Phalaenopsis* spp. orchids shipped specifically from Taiwan would have an unfair marketing advantage over domestically grown plants due to growers being subsidized and the plants may be shipped on subsidized airlines.

APHIS has no reason to believe that *Phalaenopsis* producers or shippers are subsidized by Taiwan. However, even if they were, as stated elsewhere in this document, APHIS’s determinations as to whether a new agricultural commodity can be safely imported are not affected by factors such as economic competitiveness.

One commenter claimed that this rule is unnecessary because Hawaiian orchid growers can supply the epiphytic orchids needed by Hawaiian citizens and the Hawaiian visitor industry. Another commenter stated that because imported plants would spend an extended period of time in transit and would require shorter acclimation time, plants offered for sale will be in a stressed condition resulting in shorter bloom life and reduced overall quality, which would be a disservice to consumers. The commenter claimed that since the plants may not appear stressed at the time of sale, the latent damage would lead to overall dissatisfaction of the consumer, which in turn would be damaging to the *Phalaenopsis* industry.

APHIS is bound under international trade agreements to remove technical barriers to trade in the event that such barriers are found by scientific analysis to be unnecessary. In this case, we have conducted a risk analysis that found that all quarantine pests associated with *Phalaenopsis* spp. orchids in Taiwan are

effectively removed from the import pathway by the measures required under § 319.37–8(e). As such, the Secretary of Agriculture has determined that it is not necessary to prohibit the importation of orchids of the genus *Phalaenopsis* from Taiwan in approved growing media. Considerations such as quality and consumer preference are not factors considered by APHIS or USDA in general when authorizing the importation of new commodities. These considerations are addressed by retailers and consumers who purchase plants in a free market; if imported plants are of insufficient quality or are perceived in a particular light due to their origin, the need for those imports will be dictated by the marketplace.

Economic and Regulatory Flexibility Analysis

Several commenters claimed that, contrary to the initial regulatory flexibility analysis that APHIS has prepared and published, the proposed rule will have a significant economic impact on a substantial number of small entities, and the economic analysis for the proposal greatly underestimates the consequences that will be associated with adoption of the proposal. The commenters claimed that adoption of the proposed rule would harm or perhaps destroy the domestic orchid industry, especially the industry in Hawaii, which will be unable to compete with new, cheaper imports. Commenters stated that the economic effect of the rule on small and family operated nurseries needs study and claimed that those types of businesses should be nurtured, not threatened, by government policies, especially in economically depressed areas.

Our initial regulatory flexibility analysis did not make a determination as to whether adoption of the proposed rule would have a significant economic effect on a substantial number of small entities. Our final regulatory analysis, however, found this final rule will likely have a significant adverse economic impact on many U.S. growers of potted *Phalaenopsis* plants, many of whom are probably small entities. Our analysis also found that an adverse impact on U.S. growers of orchids other than *Phalaenopsis* spp. orchids, many of whom are also probably small in size, is possible, but less certain. As noted elsewhere in this document, determinations as to whether a new agricultural commodity can be safely imported are not affected by factors such as economic competitiveness.

One commenter stated that the intent of the Regulatory Flexibility Act is not to limit regulations having adverse

economic impacts on small entities; rather the intent is to have agencies (1) focus special attention on the effects their proposed actions would have on small entities, (2) disclose to the public which alternatives they considered to lessen adverse impacts, (3) consider public comments on impacts and alternatives, and (4) state reasons for not adopting an alternative that has less of an adverse impact on small entities. The commenter stated that APHIS must fully comply with the Regulatory Flexibility Act, and must consider the impact of "inevitable proposals" for importing flowering potted orchids from other orchid genera. The commenter claimed that if APHIS issues a final rule for this action, the Agency must state in detail all of the reasons it has for making no changes in the regulations, the only alternative that can "minimize the significant economic impact on small entities."

APHIS believes that it has complied with the requirements of the Regulatory Flexibility Act. In our proposed rule, APHIS proposed to allow the importation of *Phalaenopsis* in growing media from all countries of the world. We also explained that we considered two alternatives to the proposed rule: (1) to make no changes to the regulations; and (2) to limit the scope of the rule to potted *Phalaenopsis* plants from Taiwan only, not all countries. In light of the comments we received on the proposed rule, we reconsidered the selection of alternatives for our final rule. As such, we are adopting the second alternative to our proposal as a final rule because our risk analysis for this action applies only to imports of *Phalaenopsis* from Taiwan, and as such should not be used as a technical justification for imports of *Phalaenopsis* from other countries. We rejected the first alternative because, given APHIS's obligations under the Plant Protection Act and international trade agreements, we do not believe continuing to prohibit the importation of *Phalaenopsis* in growing media from Taiwan is justified, since we have determined that *Phalaenopsis* from Taiwan can be imported in growing media without introducing plant pests or noxious weeds into the United States.

Regarding the "inevitable proposals" referred to by the commenter, we have considered the potential effects associated with importing *Phalaenopsis* in growing media from Taiwan. An analysis of future revisions and potential imports from other countries is not appropriate at this time, as any such changes to the regulations would have to be the subject of a future rulemaking action.

One commenter stated that there is a mass-market domestic trade that establishes *Phalaenopsis* spp. orchids, and other epiphytic orchids, in pots, and then sells these potted epiphytic orchids, primarily at wholesale. The commenter claimed that adoption of the proposed rule will severely compromise, even devastate, domestic orchid growers' participation in this mass-market trade, noting that Hawaiian orchid growers import about half of the orchid plants that they use to establish potted epiphytic orchids.

Our regulatory impact analysis and final regulatory flexibility analysis consider the potential economic effects of the adoption of this rule on persons who import orchid plants into Hawaii and pot them for sale in the domestic market. As noted earlier in this document, our final regulatory analysis found this final rule will likely have a significant adverse economic impact on many U.S. growers of potted *Phalaenopsis* plants, many of whom are probably small entities. Our analysis also found that an adverse impact on U.S. growers of orchids other than *Phalaenopsis* spp. orchids, many of whom are also probably small in size, is possible, but less certain.

One commenter stated that APHIS has failed to comply with the Regulatory Flexibility Act, as amended by the Small Business Regulatory Enforcement Fairness Act, because its economic analysis is rudimentary and superficial. The commenter claimed that the economic analysis ignores or diminishes the value of statistics that are available about the orchid industry in the United States, and that it makes an assumption that "cheaper foreign imports would likely benefit plant retailers and importers" without examining whether or not the statement might actually be true, or, for that matter, whether or not more "cheap foreign imports" would result from adoption of the proposal.

We believe our final regulatory flexibility analysis complies with the requirements of the Regulatory Flexibility Act, as amended. Further, our analysis makes use of all the relevant data that we could locate, including information provided to us by commenters.

We believe it is reasonable in this case to assume that the expected low prices of imported *Phalaenopsis* plants from Taiwan will lead to an expanded market for those plants, at the expense of more expensive domestically produced plants. While cheaper imports may not benefit retailers if importers do not pass on savings, it is certain that importers will benefit from adoption of this rule.

One commenter stated that APHIS's economic analysis should not attempt to draw conclusions and inferences regarding the proposed action, given that data on potted orchids are "scarce" and data on potted *Phalaenopsis* "are virtually nonexistent." The commenter claimed that the limitations on the data used in the analysis are significant; there are far more growers, far more space devoted to production, and greater gross sales than APHIS acknowledges in its analysis. The commenter noted that there is no industry sharing of data at present, and as a result, no accurate information on the state of the industry.

While economic data on potted orchids may be scarce, we have considered the data that are available. In any event, APHIS cannot prohibit imports of plants and plant products based on a lack of information regarding domestic production of those plants and plant products.

One commenter stated that the American Orchid Society's (AOS) estimate (cited in the proposed rule's economic analysis) that half of all orchids grown in the United States are *Phalaenopsis* is incorrect. The commenter claimed that while the percentage is significant, the AOS figure overstates the importance of the genus.

For the purposes of our analysis, we make the assumption that this estimate is appropriate, as the basis for the assumption is based on the judgment of an expert on the domestic orchid industry, and there is no substantive evidence to suggest that the expert's opinion is incorrect.

One commenter stated that, contrary to what was said in the economic analysis for the proposed rule, the majority of domestic orchid growers do not sell their plants primarily wholesale to general merchandise retailers and specialty stores.

The commenter did not provide any evidence to support his claim, and since revisions to the economic analysis for the rule based on this comment would not affect the overall conclusions of the analysis, we are making no changes in response to this comment.

One commenter stated that APHIS's economic analysis should consider the impact of the proposed rule on other orchids grown domestically such as dendrobium, cattleya, vanda, etc., since orchid buyers do not always distinguish what kind of orchid they are buying, as long they are cheap and attractive. Another commenter stated that potted *Phalaenopsis* spp. orchids imported from Taiwan will compete against all other potted plants as well—although to a lesser degree.

In our final regulatory flexibility analysis, we acknowledge that adoption of this final rule may have adverse economic effects on producers of other plants besides *Phalaenopsis* spp. orchids; however, the extent of the effect on those producers could not be determined.

One commenter stated that the economic analysis failed to analyze or consider extra costs that growers, importers, or retailers might face in case a pest is introduced into the United States via these imports.

Our regulatory impact analysis does not consider potential economic impacts associated with the introduction of a new pest into the United States because, based on the findings of our risk analysis, we believe such an occurrence to be highly unlikely. If we expected pest introductions to occur in association with this proposal, an assessment of the associated costs would be appropriate—but we would never have formally proposed the action in the first place.

One commenter stated that importers of potted orchids will benefit from adoption of the proposed rule, but it is a leap of faith to suppose that the rule will lead to increased sales volume benefitting retailers and consumers. The commenter claimed that, at retail flower shops and other mass marketers of floriculture products, the competition for shelf space is fierce and that orchids are minor items for most retail outlets. The commenter stated that owners might be inclined to pocket the savings from lower prices and earn a greater margin per square foot of shelf space devoted to potted orchids. The commenter claimed that it is naive to suggest that retail sales volume will increase or that retailers will pass their lower costs on to consumers.

As noted in our regulatory impact analysis, the availability of cheaper foreign imports would benefit plant importers in the United States. Importers would benefit from the income that the increased business activity would produce. U.S. retailers would also benefit if they kept the savings from lower wholesale prices for themselves instead of passing those savings on to their customers in the form of lower retail prices. Even if retailers did pass the savings on to their customers, they may still benefit, because the lower retail prices on potted plants may create an environment that leads to increased sales volume and revenue elsewhere. Consumers would benefit if retailers passed the savings on to them.

When a lower priced import is introduced, both consumer and

producer surplus, as well as total surplus, are affected; consumers are better off because they pay a lower price for the good, and producers are hurt because they get a lower price. However, trade in the product always increases total surplus. In this case, the lack of information and uncertainties regarding certain data (e.g., the volume of *Phalaenopsis* spp. orchid imports from Taiwan) has precluded a monetary quantification of the gains and losses for U.S. producers and consumers, and the net welfare effect to U.S. society. However, regardless of the specific dollar amounts, the net welfare effect of imports of *Phalaenopsis* from Taiwan to U.S. society will be positive.

One commenter stated that, given this rule's potential negative economic effects on small entities, APHIS should consider employing quotas on the number of imported plants it will allow from Taiwan to protect the domestic orchid industry from competition.

APHIS regulates the importation of agricultural products based on risk, and has no authority to issue quotas on the importation of agricultural products, since such quotas would be based on economic considerations.

One commenter stated that there would be a negative impact on Hawaii's tourism industry if biting fly *Forcipomyia taiwana* or other non-native biting flies were to become established in Hawaii.

We do not believe this action will have an impact on Hawaii's tourism industry because there is no evidence to suggest that the pests cited by the commenter will enter the United States in association with *Phalaenopsis* spp. plants imported in approved growing media from Taiwan.

Fish and Wildlife Consultation/Effects on Endangered Species

Several commenters stated that APHIS must enter into formal consultation with the U.S. Fish and Wildlife Service (FWS), as required by section 7 of the Endangered Species Act (ESA) for all Federal actions that may affect species listed under the ESA. The commenters stated that the importation of orchids in growing media may affect species of native Hawaiian orchids listed as threatened or endangered under the ESA and that the importation of sphagnum moss could be detrimental to these orchid species by altering the critical conditions required by Hawaiian orchids for successful germination, growth, and reproduction. This could come about through the introduction of the alien arthropods, snails, and fungi that have been identified in the 1997

risk assessment conducted by APHIS and summarized in the proposed rule.

In response to comments received on the proposed rule, APHIS narrowed the application of the rule to *Phalaenopsis* spp. orchids from Taiwan as the only point of origin and entered into informal section 7 consultation with FWS, as required under the ESA, to seek its concurrence with APHIS's determination that the proposed rule may affect, but is not likely to adversely affect, species proposed or listed by FWS as endangered or threatened. On April 7, 2003, FWS concluded the section 7 consultation process by concurring with APHIS's determination that the importation of *Phalaenopsis* spp. orchids from Taiwan in approved growing media will not adversely affect federally listed or proposed endangered or threatened species or their habitats.

One commenter claimed that APHIS did not provide FWS with sufficient information to make a valid determination of the impact of the rule on endangered or threatened species. The commenter noted that comments made by Hawaii's Department of Agriculture were not mentioned in the Biological Evaluation provided to FWS in support of the rule, and claimed that, since the Biological Evaluation was the document used by FWS to concur with APHIS's finding of "not likely to adversely affect," APHIS should reconsider its findings.

APHIS provided FWS with all of the information that we had related to imports of *Phalaenopsis* spp. orchids in growing media from Taiwan. FWS concluded that the information that we gave them was sufficient to produce a finding that the importation of *Phalaenopsis* spp. orchids from Taiwan in approved growing media will not adversely affect federally listed or proposed endangered or threatened species or their habitats.

Therefore, for the reasons given in the proposed rule and in this document, we are adopting the proposed rule as a final rule, with the changes discussed in this document.

Executive Order 12866 and Regulatory Flexibility Act

This rule has been reviewed under Executive Order 12866. The rule has been determined to be significant for the purposes of Executive Order 12866 and, therefore, has been reviewed by the Office of Management and Budget.

We have prepared an economic analysis for this rule. The economic analysis provides a cost-benefit analysis, as required by Executive Order 12866, and an analysis of the potential economic effects of this final rule on

small entities, as required by the Regulatory Flexibility Act. The economic analysis is summarized below. Copies of the full analysis are available by contacting the person listed under **FOR FURTHER INFORMATION CONTACT**, or on the Internet at http://www.aphis.usda.gov/ppd/rad/98-035-5_final_economic_analysis.pdf.

Under the Plant Protection Act (7 U.S.C. 7701-7772), the Secretary of Agriculture is authorized to regulate the importation of plants, plant products, and other articles to prevent the introduction of injurious plant pests.

Summary of Economic Analysis

The regulations in 7 CFR part 319 prohibit or restrict the importation into the United States of certain plants and plant products to prevent the introduction of plant pests. The current regulations allow the importation of orchids from all countries of the world, but only under certain conditions, including the condition that the plants be free of sand, soil, earth, and other growing media.

We are amending the regulations to add orchids of the genus *Phalaenopsis* from Taiwan to the list of plants that may be imported in an approved growing medium, subject to specified growing, inspection, and certification requirements. We are taking this action in response to a request by Taiwan, and after determining that *Phalaenopsis* spp. plants established in growing media can be imported without resulting in the introduction into, or dissemination within, the United States of plant pests or noxious weeds.

Our economic analysis examines this final rule's economic impacts, as required by Executive Order 12866, and considers the potential economic effects of the rule on small entities, as required by section 604 of the Regulatory Flexibility Act. The analysis takes into account public comments received in response to the proposal. Comments were received primarily from Hawaiian orchid growers and organizations representing those growers.

The economic impact of potted plant imports from Taiwan on Hawaiian and other domestic growers is uncertain because information on relative costs of production and transportation costs is unknown. However, Taiwan's interest in access to the potted plant markets, as well as certain other information, suggest that imports will displace sales by at least some domestic growers. Accordingly, it is very possible that domestic growers would lose sales to Taiwanese producers if the rule is adopted.

The percentage of all potted orchid plants produced in the United States that fall within the *Phalaenopsis* genus is unknown but it is estimated to be significant, perhaps as high as 90 percent. In Hawaii, unlike the situation on the U.S. mainland, potted plants of *Phalaenopsis* spp. are only a small segment of the overall potted orchid plant market. (*Phalaenopsis* spp. plants are produced primarily by the larger growers, and many Hawaiian growers are small-scale producers that tend to grow primarily specialty orchids.) The data suggest that, on average, Hawaiian growers of *Phalaenopsis* spp. would not be price competitive with imports from Taiwan. However, the rule's impact on Hawaii's small scale producers, given their niche in the specialty market, is unclear.

The data suggest that growers of *Phalaenopsis* spp. in California and Florida would also not be price competitive with the Taiwanese imports. The number of producers of potted *Phalaenopsis* spp. plants in those two States is unknown, but it is believed to be significant. In California in 2002, there were 41 producers of potted orchid plants of all genera, including *Phalaenopsis* spp.; Florida also had 41 producers of all genera that year.

Excluding Hawaii, California, and Florida, there were 101 large growers of potted orchid plants in all of the other States in 2002, with no one State accounting for more than 10 producers. The number of producers of potted *Phalaenopsis* spp. plants in those States is unknown but they, too, stand to be undercut in price by the Taiwanese imports.

The data are less conclusive on whether growers of all potted orchid plants—not just *Phalaenopsis* spp.—would be affected. Most U.S. growers of potted orchid plants are small entities.

The impact on producers is unclear. The rule is expected to provide net social benefits to consumers (domestic importers, wholesalers, retailers, as well as final consumers) that would exceed potential losses to domestic growers. The rule is expected to increase net social welfare.

Executive Order 12988

This final rule allows plants of the genus *Phalaenopsis* to be imported in approved growing media into the United States from Taiwan. State and local laws and regulations regarding *Phalaenopsis* spp. plants imported under this rule will be preempted while the plants are in foreign commerce. Potted plants are generally imported for immediate distribution and sale to the consuming public, and remain in

foreign commerce until sold to the ultimate consumer. The question of when foreign commerce ceases in other cases must be addressed on a case-by-case basis. No retroactive effect will be given to this rule, and this rule will not require administrative proceedings before parties may file suit in court challenging this rule.

National Environmental Policy Act

An environmental assessment and finding of no significant impact have been prepared for this final rule. The assessment provides a basis for the conclusion that the importation of orchids of the genus *Phalaenopsis* will not have a significant impact on the quality of the human environment. Based on the finding of no significant impact, the Administrator of the Animal and Plant Health Inspection Service has determined that an environmental impact statement need not be prepared.

The environmental assessment and finding of no significant impact were prepared in accordance with: (1) The National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321 *et seq.*), (2) regulations of the Council on Environmental Quality for implementing the procedural provisions of NEPA (40 CFR parts 1500-1508), (3) USDA regulations implementing NEPA (7 CFR part 1b), and (4) APHIS's NEPA Implementing Procedures (7 CFR part 372).

The environmental assessment may be viewed on the Internet at <http://www.aphis.usda.gov/ppd/es/ppqdocs.html>. You may request paper copies of the environmental assessment from the person listed under **FOR FURTHER INFORMATION CONTACT**. Please refer to the title of the environmental assessment when requesting copies. The environmental assessment is also available for review in our reading room, which is located in room 1141 of the USDA South Building, 14th Street and Independence Avenue, SW., Washington, DC. Normal reading room hours are 8 a.m. to 4:30 p.m., Monday through Friday, except holidays. To be sure someone is there to help you, please call (202) 690-2817 before coming.

Paperwork Reduction Act

This final rule contains no new information collection or recordkeeping requirements under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

List of Subjects in 7 CFR Part 319

Bees, Coffee, Cotton, Fruits, Honey, Imports, Logs, Nursery Stock, Plant diseases and pests, Quarantine,

Reporting and recordkeeping requirements, Rice, Vegetables.

■ Accordingly, we are amending 7 CFR part 319 as follows:

PART 319—FOREIGN QUARANTINE NOTICES

■ 1. The authority citation for part 319 continues to read as follows:

Authority: 7 U.S.C. 450 and 7701-7772; 21 U.S.C. 136 and 136a; 7 CFR 2.22, 2.80, and 371.3.

§ 319.37-8 [Amended]

■ 2. In § 319.37-8, paragraph (e), the introductory text of the paragraph is amended by adding the words “*Phalaenopsis* spp. from Taiwan,” immediately after the word “*Peperomia*,”.

Done in Washington, DC, this 29th day of April 2004.

Bill Hawks,

Under Secretary for Marketing and Regulatory Programs.

[FR Doc. 04-10067 Filed 5-4-04; 8:45 am]

BILLING CODE 3410-34-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. NM277, Special Conditions No. 25-261-SC]

Special Conditions: Cessna Models 500, 550 and S550 Airplanes; High Intensity Radiated Fields (HIRF)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions; request for comments.

SUMMARY: These special conditions are issued for Cessna Models 500, 550 and S550 airplanes modified by Shadin Company, Inc. These modified airplanes will have novel and unusual design features when compared to the state of technology envisioned in the airworthiness standards for transport category airplanes. The modification incorporates the installation of the Shadin Company dual ADC-6000 Air Data Computer (ADC) which will allow for the removal of the existing encoding altimeters, air data computer, and pneumatic altimeter. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for the protection of these systems from the effects of high-intensity radiated fields (HIRF). These special conditions contain the additional safety standards that the Administrator considers

necessary to establish a level of safety equivalent to that provided by the existing airworthiness standards.

DATES: The effective date of these special conditions is April 27, 2004. Comments must be received on or before June 4, 2004.

ADDRESSES: Comments on these special conditions may be mailed in duplicate to: Federal Aviation Administration, Transport Airplane Directorate, Attention: Rules Docket (ANM-113), Docket No. NM277, 1601 Lind Avenue SW., Renton, Washington, 98055-4056; or delivered in duplicate to the Transport Airplane Directorate at the above address. All comments must be marked: Docket No. NM277.

FOR FURTHER INFORMATION CONTACT: Greg Dunn, FAA, Airplane and Flight Crew Interface Branch, ANM-111, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue SW., Renton, Washington, 98055-4056; telephone (425) 227-2799; facsimile (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA has determined that notice and opportunity for prior public comment are impracticable, because these procedures would significantly delay certification of the airplane and thus delivery of the affected aircraft. In addition, the substance of these special conditions has been subject to the public comment process in several prior instances with no substantive comments received. The FAA, therefore, finds that good cause exists for making these special conditions effective upon issuance; however, the FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. The most helpful comments reference a specific portion of the special conditions, explain the reason for any recommended change, and include supporting data. We ask that you send us two copies of written comments.

We will file in the docket all comments we receive as well as a report summarizing each substantive public contact with FAA personnel concerning these special conditions. The docket is available for public inspection before and after the comment closing date. If you wish to review the docket in person, go to the address in the **ADDRESSES** section of this preamble between 7:30 a.m. and 4 p.m., Monday through Friday, except Federal holidays.

We will consider all comments we receive on or before the closing date for comments. We will consider comments filed late if it is possible to do so

without incurring expense or delay. We may change these special conditions based on the comments we receive.

If you want the FAA to acknowledge receipt of your comments on these special conditions, include with your comments a pre-addressed, stamped postcard on which the docket number appears. We will stamp the date on the postcard and mail it back to you.

Background

On March 1, 2004, Shadin Company, Inc. applied for a supplemental type certificate (STC) to modify Cessna Models 500, 550 and S550 airplanes. Cessna Model 500, 550 and S550 airplanes are currently approved under Type Certificate A22CE. The modification incorporates the installation of the Innovative Solutions & Support (IS & S) Duplex Reduced Vertical Separation Minimum (RVSM) system which will allow for the removal of the existing altitude alerter, encoding altimeters, air data computer, and standby altimeter. This system uses two air data computer ADC-6000s and interfaces to existing BA-141 altimeters. These ADCs can be susceptible to disruption to both command and response signals as a result of electrical and magnetic interference. This disruption of signals could result in the loss of all critical flight information displays and annunciations or the presentation of misleading information to the pilot.

Type Certification Basis

Under the provisions of 14 CFR 21.101, Shadin Company, Inc. must show that Cessna Model 500, 550 and S550 airplanes, as changed, continue to meet the applicable provisions of the regulations incorporated by reference in Type Certificate A22CE or the applicable regulations in effect on the date of application for the change. The regulations incorporated by reference in the type certificate are commonly referred to as the “original type certification basis.” The certification basis for the modified Cessna Models 500, 550 and S550 airplanes includes 14 CFR 25, effective February 1, 1965 as described in Type Certificate A22CE.

If the Administrator finds that the applicable airworthiness regulations (*i.e.*, 14 CFR 25, as amended) do not contain adequate or appropriate safety standards for the Cessna Model 500, 550 and S550 airplanes because of novel or unusual design features, special conditions are prescribed under the provisions of § 21.16.

Special conditions, as defined in 14 CFR 11.19, are issued in accordance with § 11.38 and become part of the type