United States Department of Agriculture

Animal and Plant Health Inspection Service

Revision of the Japanese Beetle Domestic Quarantine Regulations

Environmental Assessment, May 1996

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Table of Contents

I. Need for the Proposed Action

The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), is proposing to revise the Japanese Beetle Domestic Quarantine Regulations (7 Code of Federal Regulations (CFR) 301.48). The proposed revision of the regulations is needed to strengthen protection against the artificial spread of the Japanese beetle and to recognize that the area infested by the Japanese beetle has expanded to include the States of Minnesota and Wisconsin. If these two States are not added to the existing quarantine regulations, the potential for the artificial spread of Japanese beetles into seven protected Western States (Arizona, California, Idaho, Nevada, Oregon, Utah, and Washington) is increased. These seven protected States are considered to have sufficient habitat to support substantial populations of Japanese beetles if they were to become established.

The Japanese beetle is an exotic pest that was introduced in the United States before 1916. The beetle feeds on a wide variety of vegetation and, when populations are unchecked, can be a major pest to agriculture and ornamental plants. Currently, 24 States and the District of Columbia are considered to be infested by Japanese beetles and are covered by quarantine rules to avoid the inadvertent spread of the beetles. Recent data indicate that the States of Minnesota and Wisconsin should be added to the list of States infested with Japanese beetles and under the regulatory quarantine. The current quarantine regulations were implemented in an attempt to prevent the artificial expansion of the Japanese beetle's range, thus shielding agricultural, ornamental, and residential crops and plantings outside the infested area. It is believed that the quarantine efforts have played a substantial role in slowing the anthropomorphic (human-assisted) spread of the Japanese beetle. However, the quarantine does not address the natural expansion of the beetle's range.

APHIS' authority for action in this proposal is based upon and complies with various enabling statutes or regulations that are applicable to the USDA. Under APHIS' National Environmental Policy Act Implementing Procedures, 7 CFR Part 372, the proposed action is a class of action for which an environmental assessment (EA) is normally prepared. This EA analyzes the potential effects of the proposed action and its no action alternative.

II. Alternatives

The two alternatives considered are no action and the proposed revision of the Japanese Beetle Domestic Quarantine Regulations.

A. No Action

Under the no action alternative, the current Japanese beetle quarantine regulations would not be revised. Under the current regulations, an APHIS Plant Protection and Quarantine (PPQ) inspector may designate any airport within the quarantined States

as a regulated airport if the inspector determines that Japanese beetles are present in sufficient numbers to consider the airport hazardous due to the potential for artificial movement of beetles. The quarantined States include Alabama, Connecticut, Delaware, Georgia, Illinois, Indiana, Kentucky, Maine, Maryland, Massachusetts, Michigan, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, and
West Virginia, and the District of Columbia. After an airport is designated as regulated, a regulated aircraft may leave the airport and go to one of the seven protected States only after satisfying one of three conditions: treatment according to the PPQ manual; the inspector's determination, after visual inspection, that the
aircraft does not present an opportunity to disperse Japanese beetles; or the regulated article has arrived and left the regulated airport during the same nondaylight period (thus not being present when beetles are active).

B. Proposed Action

Under the proposed revision of the regulations alternative, the States of Minnesota and Wisconsin would be added to the list of States that are already regulated for Japanese beetles. The revision also would allow aircraft to move from a regulated airport to one of the seven protected States only under one of four conditions: (1) upon visual inspection, it is determined that Japanese beetles are not present; (2) the aircraft is opened and loaded only while in an enclosed hanger that PPQ has determined to be free of and safeguarded against Japanese beetle; (3) the aircraft is loaded during nondaylight hours only or lands and departs during those hours and, in either situation, is kept completely closed while on the ground during daylight hours; or (4) if opened and loaded during daylight hours, the aircraft is inspected, treated, and safeguarded.

Under the proposed revision, the fourth condition can be satisfied only if the inspection, treatment, and safeguarding is done under the supervision of a PPQ inspector or under a compliance agreement with APHIS. Compliance agreements must include some or all of the following eight requirements as determined to be necessary by a PPQ inspector:

1. All openings of the aircraft must be closed or safeguarded by effective exclusion devices or other means approved by APHIS between the hours of 7 a.m. and 8 p.m.

2. All cargo containers that have not been safeguarded in a protected area must be inspected immediately prior to and during the loading process; all personnel must check their clothing immediately prior to entering the aircraft and all Japanese beetles must be removed and destroyed.

3. All areas around doors, hatches, and other openings must be inspected prior to removing exclusion devices; all doors and hatches must be closed immediately after the exclusion devices are removed.

4. Aircraft must be treated no more than 1 hour prior to loading.

5. Aircraft treatment records must be maintained for 2 years.

6. If regularly scheduled aircraft are replaced with an alternate aircraft, it must be inspected, and all Japanese beetles must be removed. Also, all treatment and safeguard requirements applicable to the regularly scheduled aircraft must be implemented.

7. Aircraft may be retreated in the noninfested State if Japanese beetles are found.

8. Notification of all commercial unscheduled flights and all military flights is required at least 1 hour prior to departure.

III. Environmental Impacts of the Proposed Action and Alternative

A. No Action

Under the no action alternative, the current quarantine regulations would become increasingly less effective. Quarantine measures could not be applied in the newly recognized infested states of Minnesota and Wisconsin. Lack of quarantine measures in these states would greatly increase the risk of artificially spreading Japanese beetles to the seven protected states. Also, the regulations to reduce the risk of accidental transport of Japanese beetles would not be strengthened. The most likely result of the no action alternative would be an increased risk of allowing the artificial spread of Japanese beetles into the seven protected states and its subsequent adverse impacts to agricultural, ornamental, and residential crops and plants in those areas.

B. Proposed Action

The proposed action, revision of the Japanese Beetle Domestic Quarantine Regulations, would include adding the States of Minnesota and Wisconsin to the quarantined area. This revision would allow the quarantine regulations to continue to help reduce artificial expansion of the range of Japanese beetles. Without this revision to the regulations (no action), the quarantine regulations would become increasingly less effective because the beetle's range expansion would continue outside of the current quarantine area.

The proposed revision provides for improved precautions to ensure that beetles are not transported accidentally to the protected States from regulated airports. The proposed regulations strengthen the current quarantine regulations in that they provide a clearer definition of daytime periods when precautions must be taken and conditions that must be followed, thereby reducing ambiguities that may be present in the current regulations and providing improved instructions on how to reduce the risk of accidental transport of Japanese beetles.

The insecticide that is used for treatment inside the aircraft is the synthetic pyrethroid, D-phenothrin. It has been used successfully in the Japanese beetle quarantine program for several years. The chemical company recently has voluntarily withdrawn its registrations for this product so that it can be reformulated with a propellant that is not a potential ozone-depleting agent. (Currently, the propellant is Freon™.) Pending new registrations, APHIS has applied to the U.S. Environmental Protection Agency (EPA) for a section 18 registration that will allow the use of existing stocks of D-phenothrin in the quarantine program. The use of existing stocks will not add significantly to the potential for ozone depletion since the potential offending agents have already been manufactured and use of existing stocks will not result in any new manufacturing of potential ozone-depleting agents.

As a synthetic pyrethroid, D-phenothrin is considered to have low toxicity to humans. Because of this property, many foreign countries require aircraft entering their country to disinsect (the process of spraying the inside of airliners) with D-phenothrin (or another synthetic pyrethroid) prior to landing (thus passengers and crew are obviously present) to control the spread of disease–carrying insects such as mosquitos. Some passengers and flight attendants who were on flights while D-phenothrin was sprayed have complained about allergic reactions to the spray. Their alleged symptoms included aching joints, headaches, fatigue, chills, and nausea.

These complaints have helped prompt the EPA to request the registrants of D-phenothrin to conduct acute toxicity studies to better assess the toxicity of their products. In addition, the Centers for Disease Control and Prevention has indicated that some formulations containing D-phenothrin may cause discomfort to some individuals and may result in allergic reactions when they are exposed. Individuals with chemical sensitivities may experience serious reactions.

The use of D-phenothrin in the Japanese beetle quarantine program is such that the only person present at the time of spraying is the applicator. All applicators must be trained by the USDA and must wear safety glasses. The application rate is a maximum of 10 grams per 1,000 cubic feet of space. To minimize exposure, applicators apply the pesticide in a sweeping motion while moving toward the exit of the treatment area. Upon the applicator's exit, the treated area is closed for at least 15 minutes after application and is ventilated prior to reentry. Thus, no one passes through the treated area until after it has been ventilated. No adverse impact is expected to human health unless the applicator is chemically sensitive or allergic to D-phenothrin.

Because use of the insecticide is limited to the inside of airplanes, no impact is expected to the natural environment and no effect is expected to endangered and threatened species.

IV. List of Preparers, Consultants, and Reviewers

This EA was prepared and reviewed by APHIS. APHIS and EPA staffs were contacted for information or to review documents during the preparation of this EA. The names and addresses of the involved staffs follow.

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U.S. Department of Agriculture
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U.S. Environmental Protection Agency
Office of Pesticide Programs
Registration Division
Insecticide-Rodenticide Branch
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U.S. Environmental Protection Agency
Office of Pesticide Programs
Field Operations Division
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Finding of No Significant Impact
for
Revision of the Japanese Beetle Domestic Quarantine Regulations
Environmental Assessment
May 1996

The U.S. Department of Agriculture, Animal and Plant Health Inspection Service (APHIS), has prepared an environmental assessment (EA), "Revision of the Japanese Beetle Domestic Quarantine Regulations Environmental Assessment, May 1996," that analyzes potential environmental impacts of a regulatory proposal to revise the Japanese beetle domestic quarantine regulations. The revision adds the States of Minnesota and Wisconsin to the regulated area and strengthens the requirements for interstate movement of aircraft from regulated states to protected states. The EA, incorporated by reference in this document, is available from:

U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine
Domestic and Emergency Operations, Unit 134
Riverdale, MD 20737-1236

The EA analyzed two alternatives: no action and the proposed revision of the regulations. APHIS has determined that there would be no significant impact from the implementation of its preferred alternative—revision of the regulations. APHIS' finding of no significant impact for this action was based upon the lack of significant effects on human health and the environment.

/s/ Donald Husnik
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5-21-96
Date