introduced into Canada from shipments of New Zealand honeybees.

According to our information, HMS is not known to be present in any country other than New Zealand. In 1984, ARS researchers visited New Zealand to study honeybees and honeybee diseases there, and specifically to study HMS. Field tests conducted in New Zealand by ARS researchers to determine the communicability of HMS indicated that the symptoms of the syndrome could not be reproduced in a healthy colony, even when the healthy colony was given a massive inoculum (a comb containing larvae with HMS). In laboratory tests, no pathogen or other causative agent of HMS could be found. Field observations of New Zealand colonies also showed that symptoms of HMS appeared to clear up in time without assistance or treatment. Further, ARS has imported honeybees from New Zealand (50 queens and 20 packages of honeybees from a variety of sources) under a USDA permit on three occasions over the past 10 years, and HMS was not observed in any colony. On the basis of these observations and tests, ARS concluded that HMS is not a highly communicable disease

In addition, over the past 5 years, Canada has imported approximately 80,500 packages of honeybees and 143,350 queens from New Zealand. When New Zealand honeybees were first imported into Canada, beekeepers receiving the honeybees were specifically requested to look for any abnormal developments that resembled HMS in their colonies. One case was reported, but the presence of the syndrome was never confirmed. Agriculture Canada continues to allow the importation of New Zealand honeybees into Canada because they have concluded that if HMS is present in New Zealand stock, it is not communicable to Canadian honeybees, or there would be ample evidence of its presence by now.

However, it is true that we do not know what causes HMS, nor do we know how the syndrome was communicated in those instances where it has occurred. Also, because we have not found a causative agent of HMS, we do not know for certain whether or not the syndrome would be communicable in the varied climates of the United States.

Commenters had other disease concerns regarding New Zealand honeybees, in addition to HMS. Specifically, commenters cited reports of a high incidence of chalk-brood disease in New Zealand. Some other commenters were concerned that a number of diseases that may be present in New Zealand honeybees, such as chronic paralysis virus, Kashmir bee virus, melanosis, and Malpighamoeba mellificae, could be introduced into the State of Hawaii. We also received a comment stating that the proposal conflicts with a law of the State of Hawaii which prohibits importation of live honeybees into Hawaii because of disease and pest concerns. Our reports indicate that chalk-brood and the other diseases mentioned by commenters are present in New Zealand. These diseases are also found in U.S. apiaries, but may not be present in every State. In response to commenters' concerns, we have determined that, because of lack of information at this time, we cannot be certain that the introduction or spread of HMS and the other diseases mentioned by commenters into certain States would not prove harmful to U.S. honeybees. We plan to continue to research HMS and to conduct surveys to ascertain the scope of other diseases such as chalk-brood in the United States, to help us determine whether or not New Zealand honeybees can safely be imported. We encourage interested persons who may have information in this regard to share that information with us.

In response to comments, and until we have conducted further research, we are changing the proposed rule to allow only the transit of New Zealand honeybees and honeybee semen through the United States en route to another country, and only in accordance with specific requirements to help ensure that the New Zealand honeybees do not escape while in transit through the United States. We believe that allowing New Zealand honeybees and honeybee semen to transit the United States will enable New Zealand to ship its honeybees to foreign markets without posing a significant risk of introducing or spreading harmful diseases or parasites to apiaries in the United States.

We will require that the honeybees transiting the United States be contained in cages that are completely enclosed by screens with mesh fine enough to prevent the honeybees from passing through, and that each pallet of cages be covered by an escape-proof net that is secured tightly to the pallet so that no honeybees can escape from underneath the net. The honeybees will have to be shipped by air through a port staffed by an inspector.<sup>2</sup> The honeybees may be transloaded from one aircraft to

another at the port of arrival in the United States, provided the transloading is done under the supervision of an inspector and the area used for any storage of the honeybees between flights is within an enclosed building. These requirements will help ensure that no honeybees escape from the shipment while in the United States. Lastly, we will require that, at least 2 days prior to the expected date of arrival at a port in the United States, the shipper must notify the Animal and Plant Health Inspection Service (APHIS) Officer in Charge at the port of arrival of the following: The dates of arrival and departure; the name and address of both the shipper and receiver; the quantity of queens and the number of cages of package honeybees in the shipment; and, the name of the airline carrying the shipment. Notification of arrival will ensure that an inspector is available to supervise any necessary transloading, and to certify that the shipment is moving in compliance with the regulations.

## **Other Comments**

Some commenters stated that we do not know whether honeybees from New Zealand are susceptible to tracheal mite. New Zealand has never been infested with tracheal mite, and so, commenters said, the honeybees have not had selection for resistance to these mites. They believe it would be a disservice to U.S. beekeepers to allow them to buy stock that is susceptible to tracheal mites.

This comment introduces the question of the quality of New Zealand honeybees. The Honeybee Act, under which this rule is being issued, is designed to prevent the movement into the United States of diseases and parasites harmful to honeybees, and undesirable species or subspecies of honeybees and their semen. New Zealand honeybees are free from tracheal mite, and so their importation would not pose a significant risk of introducing or spreading tracheal mite within the United States. Further, even though U.S. apiaries have been plagued by tracheal mite for a number of years, honeybees in the United States are still susceptible to the mite and there is no research or experience that indicates honeybees from New Zealand would be more susceptible to tracheal mites than U.S. honeybees.

A few commenters stated that Canadian beekeepers report a high incidence of supersedure in New Zealand queens. This comment also voices a concern about the quality of New Zealand honeybees. Researchers from USDA's Agricultural Research

<sup>&</sup>lt;sup>2</sup> For a list of ports staffed by inspectors, contact the Animal and Plant Health Inspection Service, Plant Protection and Quarantine, Port Operations, Permit Unit, 4700 River Road Unit 136, Riverdale, Maryland 20737–1236.