

FOR INFORMATION
DA-2006-20
May 10, 2006

SUBJECT: Regulatory Decision Regarding Imported Fire Ant (IFA) Queens in
Granular Urea Fertilizer Shipments

TO: STATE AND TERRITORY PLANT REGULATORY OFFICIALS

In 2002 and 2005, newly-mated IFA (*Solenopsis invicta* Buren) queens were detected in river barges during and after loading with granular urea fertilizer near the Port of New Orleans, Louisiana. IFA queens pose a substantial risk of establishing colonies in previously uninfested areas if they survive in granular area and are transported to areas outside of the Federal IFA Quarantine area (7 CFR 301.81). Extensive testing was done at the Center for Plant Health Science and Technology (CPHST), Soil Inhabiting Pests Section in Gulfport, Mississippi, to assess whether barges containing granular urea fertilizer could transport viable IFA queens from inside to outside the quarantine area. This document summarizes the results of those test and presents the regulatory decision that a barge containing granular urea fertilizer known to be infested with IFA cannot move outside the IFA Quarantine area described in 7 CFR 301.81 for a minimum of 20 days after the barge has finished loading.

The first question that required resolution was the origin of the newly-mated IFA queens that were found in the granular urea. It is possible that the granular urea was infested with fire ants prior to arriving in New Orleans because the cargo originated in South America and the Caribbean. However, CPHST studies documented the poor survivability of fire ants in granular urea, making it unlikely that fire ants could have survived the transport from South America to New Orleans. Stevedore records indicated that large swarms of fire ants were observed during periods of vessel discharge. Thus, it was concluded that the IFA queens came from domestic IFA-mating flights in the vicinity of the barges along the Mississippi River.

A second concern was whether granular urea was somehow attractive to the newly-mated IFA queens as they descended from mating flights. The lights used in the loading areas combined with the color and reflectivity of the granular urea may have served to visually attract the newly-mated queens. The limited preference test conducted by CPHST was inconclusive in determining surface landing preference of newly-mated IFA queens. However, visual inspections of the barges confirmed that fire ant queens were present in the granular urea.

After it was determined that the fire ant queens originated in Louisiana, and that the fire ants were present in the barges, it was then necessary to determine the extent to which those newly-mated queens could survive and begin colony formation in granular urea. CPHST tests found that newly-mated queens confined to granular urea survived no more than 20 days and that no viable offspring were produced by the queens during that time.

Based on the CPHST test results, the risk of newly-mated IFA queens landing on granular urea; producing a viable colony; and/or surviving more than 20 days on the barge is very low.

Decision

In order to mitigate the risk that newly-mated IFA queens will be transported outside of the quarantine area and establish colonies, a barge containing granular urea fertilizer known to be infested with imported fire ants cannot move outside the IFA Quarantine area described in 7 CFR 301.81 for a minimum of 20 days after the barge has finished loading.

/s/ Paul R. Eggert for

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