New Domestic Quarantine of Counties in Oklahoma for Imported Fire Ant (IFA)
Richard Grantham, Dir., PDIDL

On Mar 24, 2009, the Animal and Plant Health Inspection Service (APHIS) in cooperation with the State Plant Regulatory Official of Oklahoma, made final an order increasing the numbers of counties in Oklahoma under state and federal quarantine for imported fire ants, *Solenopsis invicta*.

“Effective immediately, no person shall move regulated articles from the counties in the following states as listed below except in accordance with 7 CFR 301.81. This Order is issued under the regulatory authority provided by the Plant Protection Act of June 20, 2000, as amended, Section 412 (a), 7 U.S.C. 7712 (a), which authorizes the Secretary of Agriculture to prohibit or restrict the movement in interstate commerce of any plant, plant part, or article if the Secretary determines the prohibition or restriction is necessary to prevent the dissemination of a plant pest within the United States.

Quarantine Areas: Established populations of IFA have been confirmed in the following counties: Oklahoma: The following entire counties: Atoka, Coal, Cotton, Garvin, Jackson, Jefferson, LeFlore, Murray, Pontotoc, Pushmataha, Stephens, and Tillman.”
This action imposes regulatory restrictions on the interstate movement of regulated articles that are not currently in the IFA quarantine area. The quarantine expansion was based on multi-year surveys by the Oklahoma Department of Agriculture, Food, and Forestry (ODAFF). All of the counties listed are quarantined because of the IFA plant pest whether the surveys showed that the entire county or infested portions of the county or expanded infested portions of the county confirmed the existence of established populations of IFA.

For more information on “regulated articles” please see APHIS Program Aid No. 1904. The following regulated articles require a certificate or permit before they can be shipped outside the quarantined area:

- Imported fire ant queens and reproducing colonies of imported fire ants.
- Soil, separately or with other things, except soil samples shipped to approved laboratories (consult with a State or Federal inspector for a list of approved laboratories). Potting soil is exempt if commercially prepared, packaged, and shipped in original container.
- Plants with roots and soil attached, except house plants maintained indoors and not for sale.
- Grass sod.
- Baled hay and straw that has been stored in contact with soil.
- Used soil-moving equipment.
- Any other products, articles, or means of conveyance of any character whatsoever not covered by the above, when it is determined by an inspector that they present a hazard of spread of the imported fire ant and the person in possession thereof has been so notified.

Certificates authorizing movement of regulated articles are issued by quarantine officials when certain approved procedures have been utilized to ensure that the regulated article(s) are free from imported fire ant infestation. Please contact ODAFF at (405) 522–5879 for more information.

Russian Wheat Aphids Showing Up in Scattered Locations
Tom A. Royer, Extension Entomologist

I received reports of Russian wheat aphid (RWA) infestations in western Oklahoma. Rick Nelson, Beaver County Extension Educator, Agriculture reported an infestation, and Roger Gribble, NW Area Extension Agronomist reported an infestation located in Harper county. Russian wheat aphid infestations are rare in Oklahoma, so wheat producers may be less experienced in identifying and managing RWA infestations. If we do have an outbreak of RWA, it typically occurs in western Oklahoma and the Oklahoma Panhandle. I would like to provide a “primer” for making control decisions just in case the problem becomes more widespread.
First, some cautions: just because a field has RWA does not mean that the field must be treated; instead, it means that it should be closely evaluated to determine if treatment is needed. A second caution: just because the planted variety is resistant to RWA does not mean the field is safe. “Biotype 2” forms occur in Oklahoma, which are capable of attacking resistant varieties such as “Halt” “Stanton” and “Prairie Red” AND they have a much faster growth rate, allowing them to build in numbers more rapidly as temperatures warm.

**Description of Insect:** Russian wheat aphids are small, lime-green aphids with a “football shaped” body that seems to have a light coating of talcum powder. The legs and antenna are short, and they do not have cornicles (those tail pipe protrusions). They do have structure at the tip of their abdomen that looks like a double tail.
**Biology:** Russian wheat aphids reproduce by giving live birth to female young. Their “daughters” are already carrying developing “granddaughters” inside their bodies. They can become adults within a very short period of time, so that populations can increase rapidly. They will remain in the wheat, and will feed on developing heads as the wheat matures. They can also give rise to winged adults that can fly away and start new colonies.

**Symptoms of Damage:** Wheat infested with RWA will have rolled leaves and later, the emerging heads will become trapped. The rolled leaves will often have purple and white longitudinal streaks. If a rolled leaf is unrolled, you will probably see the aphids inside feeding. Infested plants will lay flat on the ground when they should be standing “tall”.

![Image of wheat infested with RWA with rolled leaves and emerging heads trapped.](image)
Control: The decision to treat for RWA should be made by careful scouting of the field. Use the following formula to determine the need to treat:

Treatment Threshold (percent of infested tillers) =

\[
\frac{(\text{Control cost} \div \text{Acre}\times 200)}{(\text{Expected Yield} \times \text{bu} \times \text{Market Value} \div \text{bu})}
\]

Example: Control cost = $8.00, Expected yield = 40 bu, Market value = $ 5.00/bu
Treatment threshold = 8 x 200 = 1600 ÷ 40 bu x 5 =200
Treatment threshold = 1600 ÷ 160 = 8% tillers infested.

A “rule of thumb” would be: if expected yield is around 40 bushels per acre, the treatment threshold would be 8-10% infested tillers. If the expected yield is 20 bushels per acre, the treatment threshold would be about 16-20% infested tillers.

There are several products registered for control or Russian wheat aphid. Research results from published insecticide screening trials suggest that a product containing the active ingredient chlorpyrifos (Cobalt, Govern Hatchet, Lorsban, Nufos, Warhawk, Whirlwind or Yuma) are most effective, but other products are registered as well. Check CR-7194, Management of Insect and Mite Pests in Small Grains for control suggestions and rates. Read the label, and follow all directions and restrictions.

Mention of a product is for identification purposes only and is not intended as an endorsement.

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