Neogen’s rapid test for Salmonella Enteritidis receives AOAC approval

Neogen’s rapid test for Salmonella Enteritidis (SE) has received approval from AOAC International.

Neogen’s newly-approved test kit, Reveal® for Salmonella Enteritidis, provides the egg industry with a quick, accurate and easy method of detecting this pathogen, as the U.S. Food and Drug Administration implements new SE-regulations. The AOAC’s process validated the accuracy of the Reveal for SE system when testing either environmental or egg samples.

“The AOAC’s approval further validates our test as an invaluable tool to egg producers, as they comply with the FDA’s new regulations, and seek to further reduce the likelihood of SE-contaminated eggs reaching consumers,” said Ed Bradley, Neogen’s vice president of Food Safety. “Until our introduction of an effective rapid test for SE, the industry had to wait up to 7 days for an outside laboratory’s test results. Reveal for SE enables the industry to get results within 48 hours—and provides the rapid, accurate answer they need to manage their flocks and egg production.”

Reveal for SE is the only rapid test available for SE that follows the FDA’s sample enrichment protocol and has received AOAC approval.

Other features of Reveal for SE:

- Reveal for SE is specific for the target pathogen, and provides results in only 48 hours.
- Reveal for SE is easy to use with only minimal equipment and training.
- Reveal for SE fits the regulatory requirements and management needs.

Neogen developed the test in cooperation with USDA scientists.

“Using a rapid test for SE that uses the same sample enrichment protocol as the FDA not only allows analysts to quickly screen out negative test results, but also is compatible with the FDA confirmation process by using the same enriched samples,” said Bradley. “Especially now, with the heightened concern for contaminated eggs, time is of the essence.”

The foodborne illness caused by SE is generally due to eating raw, incompletely cooked, or recontaminated eggs. Ingestion of SE-contaminated poultry meat is the second leading cause of this illness.

Neogen’s comprehensive line of products it offers to the poultry industry also includes a full line of agricultural cleaners and disinfectants, and rodenticides, to stop the spread of infectious disease from animal to animal, and from production facilities to the consumer.

Reveal® 2.0 for Salmonella also receives AOAC approval

See page 4 for more information.
Neogen is your one-stop shop for FDA Final Rule compliance

Cleaners and Disinfectants
Neogen has broadened its cleaner and disinfectant portfolio to provide the highest quantity and quality chemistries for all types of premises. Animal facilities will benefit with this diverse set of products. Our technical staff can assist you with step-by-step procedures to clean then disinfect numerous surfaces from organic matter, biofilms and serum content. These products have broad germicidal capabilities to remove infectious agents.

Rodenticides
Neogen’s comprehensive line of proven rodenticides, and expertise effectively address rodent concerns of all sizes—from eliminating an occasional mouse in a house, to serving as a critical component of an overall biosecurity plan for a major agricultural operation.

Neogen’s rodenticide research and production operations in Wisconsin are continually improving our products to better serve our varied customers’ needs, and more effectively control evolving rodent problems.

Sanitation Monitoring
AccuPoint® 2 Sanitation Monitoring System can measure the ATP, the energy carrier for all living cells, collected from surfaces inside poultry houses. AccuPoint works by measuring the light created when ATP contacts a reagent in the system’s unique sampling devices. The higher the levels of microorganisms in a surface sample, the more ATP, and the more light produced.

Not sure where to start? Neogen offers a free Rodenticide Baiting Instruction Booklet and Rodenticide Catalog. The materials provide concise explanations and product suggestions to counter just about any rodent control problem that you may be experiencing.
The FDA’s Final Rule to ensure egg safety, which became effective on July 9, 2010 for most egg producers, in part requires the testing of egg production environments, and in some cases eggs, for *Salmonella Enteritidis* (SE). Krista Eberle, director of food safety programs for United Egg Producers, answers some questions on the rule:

**The new egg rule can be overwhelming. Where do you suggest to start?**

In conversations with the FDA, they continue to stress that the intent of rule is to reduce the levels of SE on the farm—so try to keep that in mind when writing your SE Prevention Plan. To stay organized, you can use a big binder to store your information about how your facility is implementing the rule. The three areas to start with would be biosecurity, cleaning and disinfection, and pest control. Be as thorough and specific as possible throughout your plan, including all of the little things—like who is coming and going on the farm, what chemicals you use for cleaning and disinfection and maps of the houses with trap and bait station locations. The binder can become a great training and management tool as well!

Something else to think about when writing is, “Can a total stranger review your plan and understand what you are doing to reduce the risk of SE?” It will pay off if the binder can be read without a lot of explanation or hand holding, for example: The inspector reviewing your plan may not know who “Betty” is, but they will understand “administrative assistant at front office” logs all visitors in and out.

With these things in place, doing the actual testing will be as much about making sure these process are working as it is about finding SE.

**What other things should I be doing?**

Have a crisis prevention plan in place. It is important to know, for example, what will you do (with your eggs) if you receive an environmental or egg positive for SE. Are you going to go through the 6-8 week testing process or divert to heat treatment? Will you hold them while egg testing and if so, how will they be distinguishable from other eggs in your plant? Do you egg test or divert when finding environmental positive from a recently molted flock? There are a lot of things to think about.

If you are using a test method equivalent to FDA’s recommended methods, it would be wise to keep a letter from the manufacturer of the test you’re using. In this letter, there should be evidence of reliability of the test, and the AOAC approval information, and/or other information indicating FDA equivalency. Regardless of your testing method, it is important to be confident in your laboratory and its ability to run any of the tests available.

**How does UEP’s “5 Star Program” fit into all of this?**

The UEP 5-Star Food Safety Program is being revised to contain other food safety essentials not included in the program developed back in the early 1990s. The revised program is consistent with FDA’s rule and includes an auditing component and other requirements such as vaccinations.

**Contact Krista or the UEP Office at 770/360-9220 or keberle@unitedegg.com**

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**Neogen’s Sales Team**

Our Meat, Poultry and Seafood sales group is backed by unparalleled teams of experienced technical support and research and development personnel, and we offer the most comprehensive line of food, feed and animal safety and quality testing products.

Please feel free to contact us at any time about anything that you may read in this publication, or about any safety and quality testing issue.

**800/234-5333 (USA/Canada)**

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**Come visit us at the International Poultry Expo in Atlanta, GA, January 26–28, booth 1656**
Neogen's new test kit, Reveal 2.0 for Salmonella, provides the food industry a quick, accurate and easy method of detecting this pathogen without compromising sensitivity or specificity. The AOAC’s process validated the accuracy of the Reveal 2.0 for Salmonella system when testing food, rinse water and environmental samples.

The Reveal 2.0 for Salmonella system cuts the wait time for results to just 24 hours, with only 15 minutes of test development time following enrichment.

In the AOAC study, Reveal 2.0 for Salmonella was found to be an effective procedure for the detection of Salmonella enterica in chicken carcass rinse water, raw ground turkey and beef, hot dogs, raw shrimp, ready-to-eat meal products, dry pet food, ice cream, fresh spinach, cantaloupe, peanut butter and sprout irrigation water, and on stainless steel surfaces.

"The Reveal 2.0 Salmonella test system greatly simplifies the Salmonella testing protocol by instituting comprehensive sample enrichment procedures that apply to most sample commodities," said Neogen’s John Heller. "In the case of raw poultry and meat samples and poultry carcass rinses, Neogen has developed a single enrichment protocol that eliminates the hands-on time and effort of multiple enrichments, while maintaining same-day results. This is the first AOAC approved kit in a new line of pathogen test kits designed for accurate results with minimal steps for users."

The foodborne illness caused by Salmonella is generally due to eating raw, incompletely cooked, or cross-contaminated foods. Salmonella bacteria is the most frequently reported cause of foodborne illness. Neogen’s comprehensive line of products it offers to the food industry also includes a full line of agricultural cleaners and disinfectants, and rodenticides, to stop the spread of infectious disease from animal to animal, and from production facilities to the consumer.