National Veterinary Services Laboratories
Avian Influenza Agar Gel Immunodiffusion (AGID)
Proficiency Test Summary

1. Composition of proficiency test panel: Each panel consists of ten – 0.5 ml samples of antiserum from chickens that were inoculated with avian influenza (Low Pathogenic Avian Influenza virus subtypes H5 and H7). The panel contains blind samples, both positive and negative. The samples are coded with numbers 1 through 10.

2. Cost of proficiency test: Click here to view current NVSL Catalog of Reagents. Additional information on diagnostic reagents, including ordering, payments, shipping details and fees, is located at www.aphis.usda.gov/nvsl. Then click on the Reagents and Proficiency Tests link.

3. Storage conditions: Short term (up to 7 days) store at 4° ± 2° C. Long term (over 7 days) store at <-20° C in a non-frost free freezer.

4. Sample preparation/selection criteria: An AGID test was performed on all samples to determine needed dilutions. The dilutions were made according to the AGID scores of negative or +1, +2, +3, +4. Samples with an AGID score of +2, +3, +4 and negative are chosen for incorporation into the panel.

5. Panel quality control: An AGID test was performed to determine the AGID scores of the antiserum. The AGID test is described within NVSL SOP-AV-0100.

6. Timing of the proficiency test distribution and data collection: The AI AGID proficiency tests are administered annually in the month of November.

7. Test method: Performance and interpretation of the avian influenza proficiency test should be conducted using the agar gel Immunodiffusion assay as outlined in NVSL SOP-AV-0100. All plates must include a weak positive reference and negative reference control, which are included in the proficiency test kit.

8. Submitting test results: Participants are required to have data submitted for scoring no more than four (4) weeks after panel distribution. Results are reported to the administering laboratory at the Diagnostic Virology Laboratory (DVL), at the NVSL, by fax. Results for all laboratories are kept at the testing laboratory office.

9. Scoring of individual panel samples: For each panel, a participant is considered as passing if the unknown samples are identified correctly (e.g., identification of negative and positive sera).

10. Laboratory pass/fail criteria: The final score is based on the identification of positive and negative samples. Results are compiled and sent to the NVSL statistician for statistical analysis. Passing scores are based on a 95% confidence interval for the group. The number of misses

allowed each year varies based on submitted results. Historically, no more than one (1) miss on the assay has been allowed to achieve a passing score.

11. Reporting laboratory test scores: Results for each laboratory are reported only to the respective laboratory director. The director is asked to share the results with each individual participant. The Final Report on the Proficiency Panel Test is compiled and sent to laboratory directors along with a letter of approval or failure within 60-90 days of the receipt of participants' results. Approval letters are mailed separate from failure letters.

12. Remedial actions required for failing laboratories: Individual personnel from a laboratory that do not successfully complete the proficiency test on the first attempt are given a retest. Those laboratories that show repeated failure are encouraged to contact the administering laboratory for discussion of potential areas of concern. These laboratories are asked to take the test again in the next round of testing. If requested by the laboratory, additional training samples may be provided to the laboratory for practice.

13. Special Requirements: None