Meet the Staff
Vicki Legge is a member of the clerical staff. It is generally her smiling voice that greets you when you call the laboratory. She joined the laboratory in April of 2001. Vicki has a Bachelor of Science degree in History from Illinois State University. She is responsible for checking in all the serologic samples each day, typing pathology reports, reporting most serology test results, and shipping samples and supplies for the lab. Vicki has been married to Keith Legge since 1997 and has two children, Drake, 14, and Kelsi, 12. When not answering telephones, Vicki enjoys reading, playing taxi driver, and following her kids from sport to sport (swimming, track, volleyball, basketball)!!

Porcine Epidemic Diarrhea Update
Porcine epidemic diarrhea (PED) has been diagnosed in the US for the first time. Initial cases were identified in April. As of August 25, some 550 submissions have resulted in positive results; some of these may represent the same premises. Iowa, Oklahoma, and Kansa have the greatest numbers, totaling about 475; four infected herds have been identified from Illinois. PED is caused by a coronavirus very similar to transmissible gastroenteritis virus (TGEv), and the clinical presentation is indistinguishable from TGE (diarrhea and vomiting in all classes of pigs, with death loss in newborns). PED is not a reportable condition and does not set up a quarantine or other regulatory action. In herds developing signs compatible with TGE/PED, typical samples (fixed and fresh intestine and feces) can be submitted for TGE evaluation. If TGE tests (PCR, IHC, FA) are negative, samples can be forwarded to NVSL or Iowa State for PED PCR. TGE-positive cases are not PED; the tests do not cross-react. Clinical management is similar to TGE. As cool weather in the fall begins, we may expect an increase in cases if the condition behaves similarly to TGE in the field.

Saturday mail delivery
Please be aware that our funding is such that we are no longer able to pick up mail on Saturday, and that materials sent on Friday, and often on Thursday, don’t reach us until Monday morning. Please be careful what you send late in the week to avoid having it in shipping channels over the weekend. Fresh specimens should be refrigerated and sent Monday to avoid spoilage. In the hot weather, think about doubling the number of cold packs to keep tissues from spoiling.

Submiting specimens for rabies testing
The animal disease laboratory performs rabies testing on many species of mammals. Small rodents (rats, squirrels, mice, etc.) are normally not believed to transmit rabies and testing these animals is generally not warranted. Dogs, cats, and bats are clearly the species we test most often, but we have found rabies in cattle. Our laboratory has not had a positive dog or cat for a long time. About four percent of bats tested statewide are positive for rabies.

Dog and cat heads to be submitted for rabies should be removed from the animal at the atlantooccipital joint. The head should then be chilled overnight in a refrigerator or for an hour or two in a freezer. After chilling the head should be packaged in an insulated shipping container with enough ice packs to survive the trip. (See Saturday Mail Delivery in this newsletter). Please don’t freeze heads to be submitted to the Animal Disease Laboratory. There is a delay for thawing, removal of the brains from the skull is more difficult, and the resultant specimens are less than optimal.

Porcine epidemic diarrhea (PED) is currently the Illinois source for tuberculosis for domestic (program) testing and you can contact the laboratory for PPD tuberculin. This PPD tuberculin is provided at no charge by the USDA (a shipping charge will be applied). There is, however, currently a limited supply of PPD tuberculin in the US and PPD tuberculin used for non-program (export) use must be purchased directly from the National Veterinary Services Laboratory (NVSL). Information about ordering PPD tuberculin (Mycobacterium antigen -Mycobacterium bovis purified protein derivative (PPD) for the caudal fold test) from NVSL can be found on the website: http://www.aphis.usda.gov/animal_health/lab_info_services/reagents.shtml. The 10 ml vial order code for caudal fold tuberculin is 131B-10, the 5 ml vial is 131B-5, and the 1 ml vial is 131B-1. The NVSL order department phone number is: 515-337-5550.
for testing. Bats should also be packed in insulated containers with enough ice packs to last the trip. Please do not place a bat (or a brain) between two ice packs for shipping as the animal often arrives at the lab smashed with the brains no longer in the skull. If you remove a brain from the skull, shipping it in a rigid container results in the best specimen at our end. Brains shipped only in plastic bags are often unrecognizable when they arrive. Heads from large animals should generally be brought to the laboratory as soon as possible after death for testing. It may be obvious, but don’t shoot animals to be tested for rabies in the head!

**Equine health Monitoring and Surveillance**

The USDA APHIS has an updated website for Equine Health Monitoring and Surveillance that includes information about (and the prevalence of for some diseases) Eastern and Western equine encephalitis, West Nile virus infections, equine piroplasmosis, equine infectious anemia, equine herpesvirus infections, and vesicular stomatitis. The website is at: [http://www.aphis.usda.gov/vs/nahssequine/](http://www.aphis.usda.gov/vs/nahssequine/).

For those practitioners that do work with horses, it is a valuable reference.

**Bovine Serology Tests**

The Animal Disease Laboratory has begun performing several new tests for cattle: anaplasma (cELISA), bovine leukemia virus (cELISA and AGID), and bluetongue virus (cELISA and AGID). The anaplasma cELISA is $7.00, the bluetongue virus tests are $3.50, and the bovine leukemia virus tests are $5.00.

**Laboratory Notes**

**Avian Influenza testing**

The Animal Disease Laboratory now tests for avian influenza by polymerase chain-reaction (PCR) testing. Pooled tracheal/oropharyngeal swabs are the specimen of choice for chickens and turkeys. Swabs from up to eleven birds may be pooled. The pools are created by swirling each swab in 5.5 ml of viral transport media (BHI broth), squeezing the excess liquid from the swab inside the specimen tube, and then discarding the swab. The swab suspension is submitted for diagnostic testing. The swabs must not remain in the specimen tube. There is insufficient space in the tube for all eleven of the swabs and for the swab tips to be immersed in the viral transport media. All swab pools must be from a single flock and species of birds. Submit the swab suspension with ice packs. Testing is done Monday through Friday and is completed in 24 to 48 hours. Swabs and transport medium are available from the laboratory for free (shipping charges will be applied). The cost is $35.00 per sample or pool.

**Meat testing**

Meat testing is being done at the Animal Disease Laboratory. This is performed on meat that is submitted for the Meat Poultry Inspection Program along with samples from private meat packing plants. The Laboratory tests ground beef, meat trim, ready-to-eat meat products, and environmental and carcass samples for Listeria monocytogenes, generic Escherichia coli, O157:H7 E coli, non-O157:H7 Shiga toxin producing E coli (STEC), and Salmonella. Listeria, Salmonella and E. coli 0157 & non-0157 STEC are tested using a screening procedure using polymerase chain-reaction testing (PCR). Positive samples from the screening procedure are confirmed by isolation of the organism. A considerable amount of the laboratory’s testing efforts now go toward meat testing.

**Cases from the ADL**

**Steer with soft bones** - A 480-pound Holstein steer was submitted alive for necropsy. It was down in the rear, but otherwise neuromuscularly intact. The vertebral column was split sagittally and the vertebrae were found to have extremely thin cortices. A pathologic vertebral fracture with resultant collapse of the vertebra into the spinal canal was found in the lumbar region of the vertebral column. The vertebral fracture had impinged on the spinal cord and caused the steer to go down. The steer had been housed indoors with a diet composed only of oats and corn for most of its short life, but was currently on pasture when it went down. The inadequate diet and lack of sunshine had resulted in inadequate development of the skeleton resulting in fracture and collapse of the lumbar vertebra. This illustrates the importance of obtaining a good history as a steer on pasture would not be expected to suffer such problems.

**Website**

See our website ([agr.state.il.us](http://agr.state.il.us)), click on Animal Health and Welfare in the left column and then select Animal Laboratory Services from the drop-down list) for the most current submission forms (serology and diagnostic) and our updated fee schedule and back issues of this newsletter.