Use of SL series Tags as a Management Tool

Dr. John Huntley, Division of Animal Industry

The NYSCHAP approach involves an assessment of the state of animal health on a farm followed by the strategic deployment of management practices that address specifically identified risk areas. These practices are designed to improve animal health, increase farm profitability and efficiency, and assure food safety. As a consequence of this integrated herd health and management approach, animals may be identified for elimination from the herd for health or productivity reasons. Many NYSCHAP producers report that the cull cows that are marketed for slaughter are subsequently being purchased as herd replacements. The concern is that the problems that led to the animal being designated a cull animal would contribute to a herd health issue in the recipient herd.

A cattle eartag has been designed to direct shipments of cattle to slaughter only. The New York State Department of Agriculture and Markets has created the green slaughter only cattle eartag to address this need. The eartag is identified by its green color and begins with the series SL followed by a 6 digit unique number. Licensed cattle dealers and auctions restrict the sale of animals identified by the SL tags to slaughter only. The tags are recognized as official tags and therefore can not be legally removed or altered.

You may obtain the green SL tags by contacting your herd veterinarian, state veterinarian, or the Division of Animal Industry (518 457 3502). The tags are provided at no charge.

Johne’s Testing Update

Dr. Sue Stehman, NYS Diagnostic Laboratory

- All nine ESP units are now in place and all bovine herd and diagnostic testing is being done on the liquid media system. Other ruminants species are still being run in parallel with solid media until growth curves and quantification can be evaluated. So far other species appear to routinely need ~55 days in culture compared to ~35 days for bovine. The sheep strain is growing fairly routinely using the liquid media system. Bovine samples are being cultured routinely for 35 days now (down from 42) with equivalent sensitivity to the old HEYM system.

- Volume: Nine units - ESP, can handle 25,000 samples per year. The Lab is able to handle 500 samples per week. We are currently anticipating 200 - 250 maximum after September. There is room on the schedule for more fecal cultures.

- Scheduling: (recommended for over 10 samples or for herds expecting to submit samples regularly on a rolling herd test.) Samples need to be spread out so that the volume can be managed within the weekly limit of 500 samples while still providing good turnaround. Any extra volume above the weekly limit can be frozen but we still need to be able to provide reasonable turnaround out of the freezer which may take an additional week or so. Rolling herd sampling will help spread out samples and provide a more steady weekly base for the Lab. Scheduling whole herd testing ahead of time will help us to anticipate high volume weeks and still provide reasonable turnaround.

- Contamination - We are finding that despite an expectation of increased contamination with the new liquid media system that we are actually seeing levels equivalent or less than previous years on solid media. Having said that - most of the observed contamination is clustering on certain farms which can be frustrating to all parties involved especially since we have to charge for the original and repeat samples. Heavy shedders can often be detected despite the contaminants but lower numbers may not be detected.

Fecal culture contamination is related to 2 issues: sample handling and on farm feed quality. We have found that snap freezing in the laboratory - at -80 degrees C will help to decrease contaminants and we have started doing this on herds with repeated problems. However, sometimes we can't get around the problem until the feed itself has been changed for several weeks or the cows are sampled at a different time of year. Expect most contamination to occur between April and Sept.
To minimize contaminants:
1) Sample handling - collect and ship ASAP - do not hold at refrigerator or home freezer temperatures. In summer, the longer the sample is held before shipment to the lab the greater the chance of contaminants. Samples should be held at room temperature until shipment and then be shipped for arrival to the lab ASAP.
2) Farm - feed quality - most of the contamination that we are seeing is fungal. Less common is overgrowth by Bacillus spp which sporulate in culture and overgrow. The feed is not always visibly moldy. I’ve never correlated our culture contamination problems with some of the new laboratory methods being offered by feed labs to assess the quality of fermentation but this would be interesting if any of the problem farms are using such measures.

If you have any questions about procedures or about the new liquid media system, please contact Dr. Stehman at 607-253-3892 or sms14@cornell.edu.

New Salmonella Strain Making It’s Way Across the Northeast
Kathy Kaufman, NYSCHAP Coordinator

Several years ago US News and World Report featured on it’s cover a story about an outbreak of a newly reported Salmonella strain – Salmonella DT104. The reason for the story was the high degree of antibiotic resistance. Starting this past spring an even more resistant strain of Salmonella has been rapidly marching it’s way across the northeast. Salmonella newport presents the same as other Salmonella strains and is specific to cattle. Populations most affected include calves and post-freshening cows. At this point there is no medication available to treat animals because of the resistance of the strain. Management practices are incredibly important to minimize the risk of this bacteria from entering the cattle operation as well as decreasing the spread should the organism gain access.

Dr. Pat McDonough, NYS Diagnostic Laboratory, is very interested in this new species. Dr. McDonough was involved in the initial DT104 outbreak and is now involved with tracking Salmonella newport. Mapping the spread of the bacteria is important to determine how S. newport has gained entry to cattle operations. Additionally, Dr. McDonough is cooperating with colleagues in Ireland to try to determine why this strain is so resistant. Due to it’s resistance S. newport is also a public health threat.

NYSCHAP offers a Salmonellosis module which examines the risk of entry of Salmonella onto cattle operations and amplification of disease on the farm. Some management practices that may be implemented include:

- Isolation of additions and returning animals (fair, show, custom raised heifers) for 3-4 weeks.
- Isolate sick animals immediately and handle them last.
- Provide clean, comfortable single use calving pens and remove calves ASAP.
- Do not allow rendering trucks or cattle trailers near animals, feed and facilities.
- Do not feed waste milk to calves.
- Clean and disinfect equipment used between animals, such as water or milk pails, feeders, nipple bottles and oral medication equipment.