



BC Sustainable Poultry Farming Group

Project updates for February 19, 2016 meeting

2014-05 Broiler Litter and Horse Bedding Gasification Feasibility Study

- The project has determined the availability, cost and characteristics of used horse bedding and poultry litter in the Fraser Valley and confirmed the chemical and physical characteristics of the poultry litter and horse bedding.
- Samples of poultry litter and horse bedding were shipped to a gasification test facility in Europe where different feedstock combinations were test gasified. Results from the test gasification were very positive, showing that both feedstocks are suitable for gasification. In addition, the ash by-product might have some value as a fertilizer.
- Several gasification technology companies were approached to provide information and quotes to build a gasification plant in the Lower Mainland. After assessing all of the proposals, EQTEC from Spain was chosen. EQTEC's fluidised bed gasification technology is able to handle a horse bedding/poultry litter mix and the technology is highly regarded in Europe.
- A list of potential sites where the gasification facility could be located has also been created. These sites have been assessed and a short-list of twelve have been created based on their potential to utilize the heat and/or electricity. These sites are now being investigated to determine their suitability. The slight delay in selecting the most idea site(s) is due to a delay in assesses the ability to connect to the BC Hydro grid infrastructure."

2015-01 Genomic Analysis of Wetland Sediment as a Tool for Avian Influenza Virus Surveillance in Wild Waterfowl

- Sequencing work of the on-farm samples in ongoing, so far AI has been identified in environmental samples on several farms.
- They are planning for a second phase of the project that will involve field validation of the technology, as well as performing a cost-benefit analysis to identify the optimum combination of technologies for a provincial AI early warning system. They may also investigate factors associated with on-farm AI contamination with the goal of helping producer to modify the farm environment to guard against future AI outbreaks.

2015-02 The Development and Commercialization of Aerobic Digestion of Poultry Manure to Produce Bio-Active Fertilizers

- Trial 6 is underway... both it and Trial 5 had severe initial oxygen limitation in part due to high percentage of dry matter
- The project hopes to be further expanded; a grant request was submitted to the Canadian Poultry Research Council, CPRC to trial fermenting turkey manure.

2015-03 Development of a Point-of-Care PCR diagnostic platform and assays for the poultry industry

- The project is on schedule to wrap up this Spring.
- Since the last update they have further refined their method of extracting target pathogen DNA from fecal matter.
- Their development partner, VIDO has completed the development of Salmonella assays in liquid PCR. They are now evaluating Aquila's enzyme and buffer systems for assay specificity and robustness.
- They are working in conjunction with Dr. Chelsea Himsworth on her Sediment Study to map out and track Avian Influenza in wetlands across the lower mainland. They will be testing all the sediment samples (estimated at 9000 samples). The results will be compared to results from the Animal Health Center and be used for validation of the AI qPCR test.
- The next phase of validation will be a blinded study comparing the Aquila qPCR system and AI PCR tests used at the CFIA's National Centre for Foreign Animal Disease Level 4 laboratory in Winnipeg. If the Aquila system achieves the same results for Avian Influenza as the CFIA Level 4 laboratory they will be working toward implementing their test as the front line screening test for Avian Influenza.
- They will be meeting with SPFG in April to discuss their project.

2015-04 and 2015-05 Four Feathers Poultry Conference March 2016

Dr. Susan Watkins - Providing a clean, safe and sanitized water supply is crucial in assuring flocks perform their best. Water supplies are dynamic and can change therefore it is important to monitor supplies to assure quality does not deteriorate. Maintaining water quality involves testing water supplies to identify both mineral and microbial challenges. Swab systems pre and post cleaning to determine how well the job was done.

Dr. William Cox - The fundamentals of biosecurity are not a lot different today than they were in 2004, but we have learned lots about the enemy since then. The 2014/15 Hi Path AI event has made us look at Avian Influenza, and other diseases, from a slightly different angle. This discussion will review the fundamentals of infection control with an eye on how we plan, implement, and execute biosecurity today.

2015 07 additional Reducing Salmonella and Campylobacter contamination of poultry

- The project started January 2016 and funds from IAFBC were allocated and transferred to UBC. SPFG has now been invoiced.

2015-08 Diatomaceous Earth as a poultry feed supplement (*letter of support*)

- They are just confirming final funding for the project. The project is slated to start May 9, 2016

2015-09 Antibiotic Free Broiler Chicken Production (*letter of support*)

- Start date is April 8 2016.