# INTRODUCTION

*Investigation Period:* September 8, 2016 to October 6, 2016

*Investigation Date:* October 11, 2016

*Investigation Facilitators:*

* Dr. Derald Holtkamp, Primary Investigator
* Chris Mowrer, Assistant Facilitator

*Farm Personnel:*

* Dr. Elliot Stabler, Herd Veterinarian
* Tom Reed, Farm Manager

# CHARACTERISTICS OF THE PREMISES

*Site Name:* Bear Grove

*Production System:* Bear Grove

*Type of herd:* Commercial

*Stage of production:* Farrow-to-Wean

*Site Inventory:* 2,500

*Production system inventory:* 2,500

*Parity Segregation (if applicable):* mixed parity

# DESCRIPTION OF CURRENT OUTBREAK

*Date of first clinical signs:* October 6, 2016

*Location of first clinical signs in barn:* Southeast side of gestation barn 2 near feed bins 1 and 2

*Description of clinical signs:* Sows on the southeast side of gestation barn 2 were the first to go off feed and abort. They alerted the herd veterinarian after severe increases in number of sows off feed and late term abortions. There have been 170 late term abortions and 26 sow deaths to date. Virus took about 1 week to reach adjacent barns and 90 day bred sows were the first animals to go off feed.

*Date of diagnostic confirmation:* October 8, 2016

*Diagnostic Lab:* Iowa State University Veterinary Diagnostic Laboratory

*Diagnostic tests performed:* PCR on weaned piglet serum, 20 samples pooled with 5 samples per pool. All came back positive with 17 at a CT of <23.

# POSITIVE FARMS WITHIN A 5-MILE RADIUS AND/OR OPERATIONAL CONNECTION

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Farm Name | Stage of Production | Number of Animals | Distance from farm *(miles)* | Operational Connection *(shared risk event(s))* |
| Rouge 1 | Finisher | 1,500 | 4.5 | Positive farm within 5 miles |
| Tree Hill | Breeding | 7,500 | 10 | Repair/service personnel inside barns |
| Minnesota Select 23 | Breeding | 3,600 | 17 | Visited by manure removal personnel |

# EVENTS RATED AS HIGH LIKELIHOOD OF BEING RESPONSIBLE FOR PATHOGEN INTRODUCTION

1. **REPAIR/SERVICE PERSONNEL WORKING INSIDE BARNS**

**Key Observations:**

o Repairmen were at a PRRS-positive sow farm, Tree Hill, a few days before entering

Bear Grove

o Repairmen were new to the company and may not have fully understood the biosecurity practices that they were supposed to follow when entering the facilities

o Repair part was stored in a high traffic location where it may have contacted other potential carrying agents that would have access to pigs

o Not quarantined for 24 hours

o Disinfected in chute before being brought into facilities

o Operational Connection: Positive Sow Farm, Tree Hill

o Location of First Clinical Signs: First clinical signs were observed in location that repair

part was installed

1. **Manure Removal**

**Key Observations:**

o Both equipment and personnel are managed by Dan’s Manure. Dan’s manure pumps manure for many swine barns at this time of year (Fall). It is known that the manure removal personnel and equipment pumped manure at Minnesota Select 23, a positive site, the day prior to pumping manure at Bear Grove.

o As far as Bear Grove’s farm manager knows, the manure removal equipment is not washed between sites. He assumes that Dan’s Manure has built in downtime, but he is unsure. However, he did notice that the equipment was “not spotless” upon arrival.

o On September 25th, weather conditions supported the spread of PATHOGEN via aerosol.

Manure was pumped on September 26th. Due to the proximity and weather conditions, it is

possible that PATHOGEN may have been aerosolized during this time period.

o Location of First Clinical Signs: First clinical signs were observed in the barn closest to

the pump.