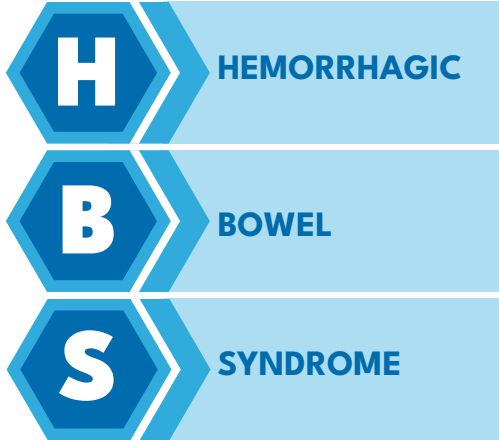




**A SPORADIC,  
BUT EVER-PRESENT  
DISEASE THAT TYPICALLY  
AFFECTS HEALTHY, RAPIDLY  
GROWING FINISHING PIGS.**



### STRESS FACTORS

#### MECHANICAL

- **OUT OF FEED EVENTS**
  - Late feed orders
  - Feed bin bridging

#### ENVIRONMENTAL

- **HEAT STRESS**
  - Lack of proper cooling causes pigs to gorge when weather conditions become cooler
- **CHANGES IN PIG PEN BEHAVIOR**
  - Excess fighting among pigs caused by:
    - Heavy gilts entering estrus
    - Moving to a new group/pen location
    - Sorting pigs or topping off pens at marketing
    - Aggressive mixing of pigs during daily chores
    - Pigs jumping to a new pen
- **WATER QUALITY**
  - High calcium levels
  - Bacterial contamination
- **CONSTANT HEALTH CHALLENGES**
  - Pigs gorging on feed after recovering from a health challenge
  - Confounded with other disease present

### PRIMARY SYMPTOMS



**SUDDEN  
DEATH**



**TORSION  
OF THE  
INTESTINE**



**BLOOD**



**FULL GUT OF  
PREVIOUSLY  
CONSUMED FEED**

The large intestine usually contains tarry fecal material, but no lesions suggestive of gastric ulceration, necro-proliferative enteritis, salmonellosis, or swine dysentery (Straw et al., 2002).

Correct diagnosis of HBS can only be made by postmortem examination with appropriate testing and histopathology. Unfortunately, a large portion of swine mortality is never necropsied or may be done by less skilled labor, resulting in misdiagnosis. In fact, a study by Lower et al. (2007) found that 54% of HBS cases reported by barn personnel were misdiagnosed when a trained veterinarian conducted a follow-up necropsy.



It is extremely difficult to design a treatment program for HBS as the disease usually kills the pigs before treatment can be applied to the animals. Thus, the most appropriate intervention strategy is to improve animal husbandry skills and develop a proper diagnostic protocol. Below are some strategies that have seen promising results in certain production systems and provide a baseline from which to start for your farm's unique production environment.

## MITIGATION STRATEGIES

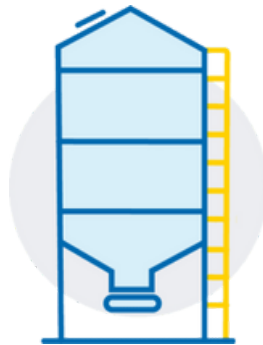
### COMPREHENSIVE DIAGNOSTIC SOPS



Previously, Lower et al. (2007) reported that 42% of total mortalities, of which 54% of reported HBS cases were misdiagnosed in a large production system. Thus, it is imperative that proper diagnostics are conducted to understand the extent of how HBS is affecting your system or if it is a different disease all together.

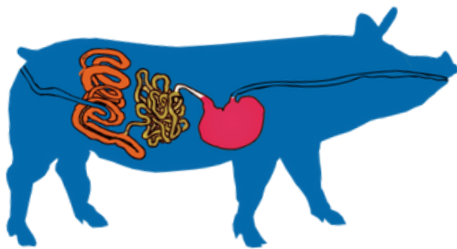
### NUTRITIONAL INTERVENTIONS

Out of feed events are thought to be a major contributor to HBS outbreaks. It is important to check feed orders and deliveries when an HBS outbreak occurs. Feed bin bridging may also cause out of feed events even when feed is delivered in an appropriate timeline. If this is determined to occur, we would recommend reducing the added fat in the diet and increasing the corn micron size to aid in feed flowability. Proper water intake is also crucial to maintaining feed intake especially during periods of hot weather (Table 1). It is thought that a highly fermentable diet may lead to increased incidence of HBS. Highly fermentable ingredients may cause bloating to occur and gut bacteria to flourish leading to inflammation of the gastrointestinal tract. Increasing dietary fiber may aid in reducing the fermentability of feed in the GIT.



### GUT HEALTH

As with any enteric disease a review of management practices to improve gut health is warranted. Treating the water source with an acidifier or using a water sanitizer such as chlorinating may be effective at altering the gut bacteria and prevent enteric diseases.



While there may be little published data to support the effectiveness of water treatments against HBS, these procedures are typically easy to implement with minimal cost. It is recommended that a veterinarian review the effectiveness of your ileitis prevention program that is being implemented. Also it is advised to determine if the administration of antimicrobials could be beneficial to aid in reducing disease-causing enteric bacteria.

**Table 1. Wet vs Dry Feeder vs Supplemental Water, BMD<sup>1</sup>**

| Treatment                  | 1                  | 2                  | 3                  | 4                  |
|----------------------------|--------------------|--------------------|--------------------|--------------------|
| Feeder                     | Wet                | Wet                | Dry                | Wet                |
| Suppl Water                | Nipple             |                    | Nipple             | Nipple             |
| Pig:Drinker Ratio          | 5.8                | 8.8                | 17.5               | 5.8                |
| Feed Med                   | no BMD             | no BMD             | no BMD             | 250 g/T BMD        |
| #Pigs Started <sup>2</sup> | 560                | 560                | 595                | 595                |
| Mortality %                | 3.75%              | 4.11%              | 2.69%              | 2.18%              |
| Start Wt                   | 39.9 <sup>a</sup>  | 39.7 <sup>a</sup>  | 39.6 <sup>a</sup>  | 40.0 <sup>a</sup>  |
| Market Wt                  | 308.7 <sup>a</sup> | 307.1 <sup>a</sup> | 300.4 <sup>b</sup> | 303.8 <sup>c</sup> |
| Carcass Wt                 | 237.2 <sup>a</sup> | 235.7 <sup>a</sup> | 231.8 <sup>b</sup> | 234.5 <sup>c</sup> |
| ADG                        | 2.07 <sup>a</sup>  | 2.03 <sup>a</sup>  | 1.98 <sup>b</sup>  | 2.08 <sup>bc</sup> |
| ADFI                       | 5.32 <sup>a</sup>  | 5.24 <sup>b</sup>  | 5.08 <sup>c</sup>  | 5.26 <sup>a</sup>  |
| FCR                        | 2.57 <sup>a</sup>  | 2.59 <sup>a</sup>  | 2.57 <sup>a</sup>  | 2.54 <sup>a</sup>  |

<sup>1</sup> Trial conducted in commercial research barn in Midwest fed traditional Corn/SBM/DDGS diet  
<sup>2</sup> Pigs housed at 6.5 sq ft/pig

**Contact your DNA Genetics representative for ideas on intervention strategies on enteric diseases.**

These strategies are intended to help or prevent enteric challenges from occurring in finishing pigs. Each farm has its own unique settings and challenges. When necessary, work with appropriate herd veterinarian to diagnose mortality. Remember, there may be times where even the best producers struggle with mortality after implementing all strategies correctly. \*References available upon request