



**Joyce Veterinary  
Services**



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# HDC Disease Update

February 12, 2020



# Top Broiler Diseases – 2019 (948 cases)

Disease	Incidence	Total Cases 2019 (1125 Dx)	Total Cases 2018 (686 Dx)
Colibacillosis	34%	380	228
Infectious Bronchitis Virus (IBV)	10.4%	120	40
Coccidiosis	8.3%	97	34
Reovirus/Valgus-Varus Deformity (VVD)	7.4%	84	80
Proventricular Dilation Syndrome (PDS)/Proventriculitis	5.6%	63	1
Runting Stunting Syndrome (RSS)	4.8%	54	28
Infectious Bursal Disease (IBD)	4.7%	53	30





Runting/Stunting Syndrome

# Runting Stunting Syndrome (Astrovirus)

**DEFINITION:** VIRAL INFECTION OF INTESTINAL TRACT IN BROILER CHICKENS CAUSING MARKED MALABSORPTION, STUNTING/RUNTING AND IMMUNOSUPPRESSION.

**Age of Onset:** 5-6 days → continual through life of flock

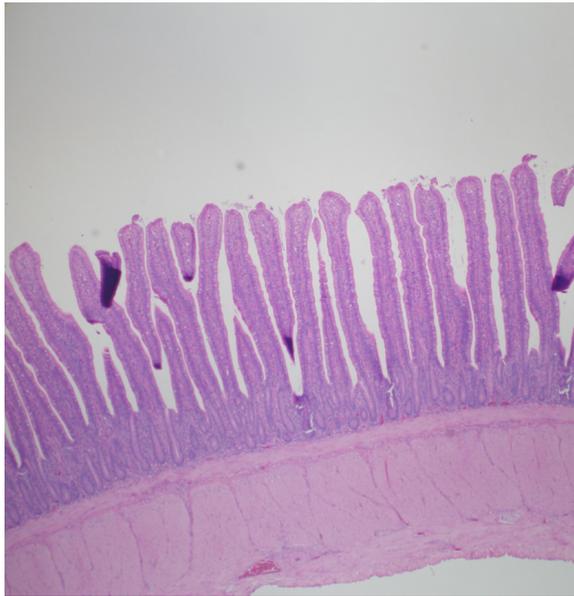
**How Diagnosed:**

- i) Inability to meet 7-day target weights
- ii) Clinical presentation
- iii) Gross PM findings
- iv) Histopathology (10 – 14 days)**

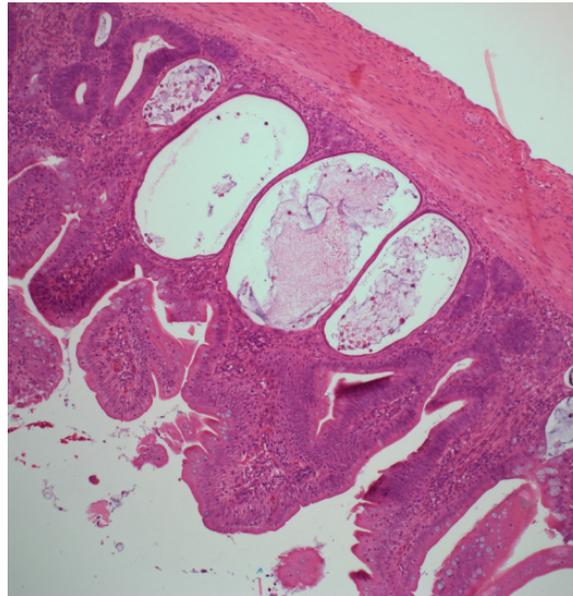
**Cause:** Viral; Georgia astrovirus

**Treatment:** None; support immune system; culling

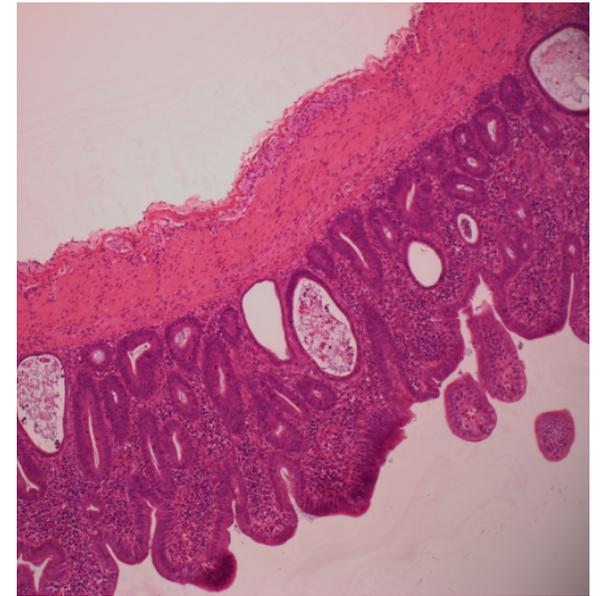




Normal small intestine



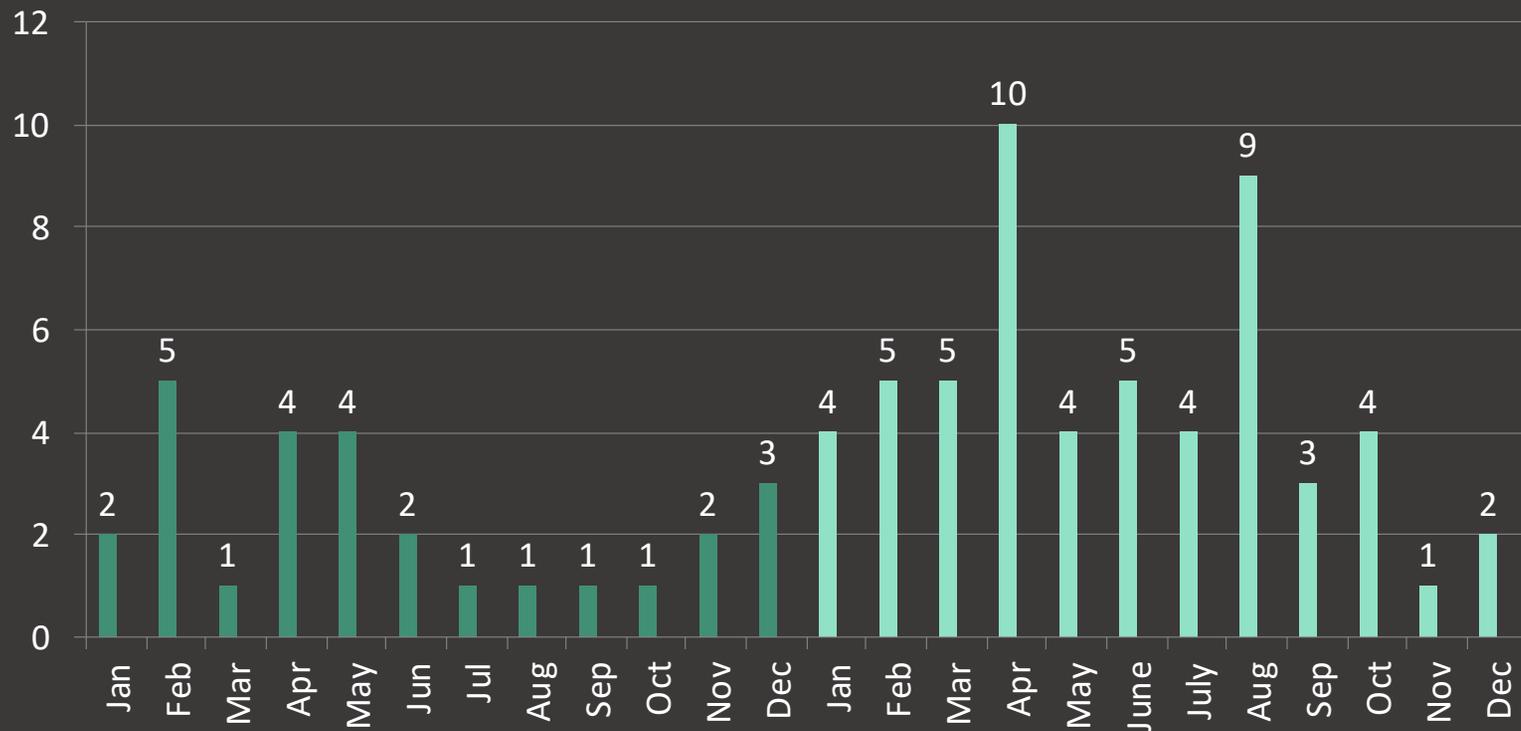
Villus atrophy, villus fusion and cystic crypts typical of RSS



# Histological Findings



# Incidence of Runting Stunting Syndrome 2018-2019





# RUNTING STUNTING SYNDROME

Technical bulletin brought to you by:

**Hensall District Co-op**



## OVERVIEW

Viral infection affecting the intestinal tract of young broiler chickens. RSS causes marked malabsorption, runting & immunosuppression. Birds are unable to catch up on weights causing uneven sizes through the life of the flock. The virus is transmitted vertically & horizontally, and males appear more susceptible than females.

## CAUSE

### Chicken Astrovirus (CAstV)

Georgia strain most commonly associated with RSS

## CLINICAL SIGNS

### Key indicators of RSS include:

Low weights in first days of life

Inability to meet 7-day target weights

Poor weight/size uniformity for duration of flock

Excessive culling and birds left in the barn after shipping

## POSTMORTEM FINDINGS

### PM ideally performed between 8-14 days

Lesions commonly seen include thin-walled, dilated intestines and watery intestinal contents. Given that RSS can cause immunosuppression, lesions of bacterial septicemia and bursal atrophy can also be seen.

## DIAGNOSIS

### Histopathology

Gut samples (including duodenum, jejunum, and pancreas) are fixed in formalin during PM at day 8-14.

Samples are submitted for histopathology at the University of Guelph, where RSS is either confirmed or ruled out.



Uneven chicks



Poor ADG & FCR



Impacts performance & profits



JVS RSS cases doubled 2018 to 2019

## TREATMENT & PREVENTION

**Unfortunately, there is no treatment or vaccine currently available for RSS. If**

**RSS is diagnosed in your flock, a supportive therapy program and C&D protocol will be determined based on severity, concurrent challenges, and flock status. Consult your veterinarian for further information.**