



October 3, 2016

To Ontario Pork Producers:

Senecavirus A has now been confirmed in the province of Ontario. Clinical signs of this disease are similar to a foreign animal disease and as such the Canadian Food Inspection Agency is testing all swine at federal processing plants that are symptomatic. Processing plants can be shut down up to 72 hours while testing is being conducted.

**Plant closure will immediately stop the flow of hogs and shipping of pork products** from that facility. If a plant is shut down, its customers and suppliers will be notified of pending production and product delays/cancellations.

Producers should take the following biosecurity measures:

- **Know the symptoms of Senecavirus A**
  - Blisters (vesicles) or ulcers of the snout, mouth, and/or just above the hoof
  - Lameness, fevers, lack of energy and/or appetite
  - Lesions
  - 4-10 day increase in piglet mortality with/without diarrhea
- Ensure your transporters exercise biosecurity and know the symptoms of Senecavirus A
- Ask your plant, marketer and/or assembly yard about their processes to address this disease

**If you have any of the symptoms above:**

- **Stop any movement on and off farm.**
- **Call your herd veterinarian and CFIA office.**
- **Do not leave the premises while awaiting CFIA and veterinary help.**
- **Notify your transporter, plant and/or assembly yard, if loads left your farm in the previous 12-24 hours of you noticing symptoms.**

Attached is more information about this disease. Please contact your herd veterinarian, your plant or marketer or Ontario Pork if you have any questions.



# Senecavirus A Update



In July 2016, 12 cases of vesicular disease have been noted at US slaughter houses in Iowa (<http://www.porknetwork.com/news/seneca-valley-virus-cases-found-slaughterhouses>). Seventy-five percent (9 out of 12) were confirmed positive for Senecavirus A (Seneca Valley Virus A), and all were negative for Foot and Mouth Disease.

It is important to be reminded of the clinical signs, and what to do if found in your herd. Producers are urged to be on the alert for any signs noted on the list below, and practice biosecurity awareness.

## Clinical Signs

- Blisters (vesicles) or ulcers of the snout, mouth, and/or just above the hoof
- Lameness, fevers, lack of energy and/or appetite can be seen in pigs of all ages
- Lesions are indistinguishable from other vesicular foreign animal diseases e.g. Foot and Mouth Disease
- Can also see a 4-10 day increase in piglet mortality that may or may not have diarrhea associated with it (noted in US and Brazilian outbreaks)



Above figures (sourced from the Canadian Veterinary Journal) demonstrate blisters (vesicles) on snout and feet

## What producers should do if clinical signs are seen:



**STOP**: Stop any movement on and off farm. Producers must **NOT** ship animals under any circumstances, as this may lead to plant shut down



**CALL**: Immediately call your herd veterinarian and CFIA office (phone numbers available at: <http://www.inspection.gc.ca/animals/terrestrial-animals/offices/eng/1300462382369/1300462438912> )



**WAIT**: While awaiting CFIA and veterinary help, do not leave the premises

## Important numbers for all swine producers

**Canadian Food Inspection Agency**: 1-877-814-2342 (After hours emergency only)

**OMAFRA Agricultural Information Contact Centre**: 1-877-424-1300

Both of the above numbers are answered 24 hours, 7 days per week

### Additional resources:

[OAHN producer report with further details](#)  
[SHO/CPC bulletin on Senecavirus A](#)  
[Swine Health Information Centre Fact Sheet](#)

[AASV Senecavirus A resources](#)  
[AASV summary of Senecavirus A in Breeding herds](#)  
[Scientific paper on young piglet clinical signs of Senecavirus A](#)

## **Senecavirus A: The Facts**

### **What is Senecavirus A?**

Senecavirus is a picornavirus genus containing a single species, Senecavirus A (SVA) (formerly named Seneca Valley virus). It was unknown until 2002 when it was discovered incidentally as a cell culture contaminant. Only a single species is classified in the genus Senecavirus. The family Picornaviridae also contains foot-and-mouth disease virus (FMDV) and swine vesicular disease virus (SVDV).

Senecavirus A has been reported in the United States, Canada, Australia, Italy, New Zealand and in Brazil. Farm outbreaks in the United States have been identified in California, Illinois, Iowa, Louisiana, Minnesota, New Jersey, and North Carolina between 1988 and recently.

Besides affecting animal health, SVA infection is notable because its clinical symptoms resemble those caused by foot-and-mouth disease and vesicular stomatitis viruses. When vesicular disease is observed in Canada and U.S. swine, mandatory reporting and testing of animals for foreign animal diseases are required.

### **What are the symptoms?**

The clinical signs associated with Senecavirus A in pigs include vesicles (blisters) or erosions (results of ruptured vesicles) on a pig's snout, mouth, and/or feet where the hoof meets the skin. There have been reports of unexplained lameness, off-feed events and diarrhea in piglets prior to the emergence of vesicles or erosions in groups of pigs.

### **What is the virus period or duration?**

Unfortunately, not a lot is known about Senecavirus A in terms of incubation period or duration. Clinical signs closely resemble Foot and Mouth disease and its incubation period in susceptible animals can range from two to eight days, but can be up to twenty-one days post infection with the virus. Infected animals can spread the virus one to two days prior to the onset of clinical signs and for seven to ten days after the presentation of clinical signs.

### **How is Senecavirus A transmitted?**

The transmission route(s) for Senecavirus A are not well understood. Foot and Mouth is known to spread readily by direct contact with infected individuals, fomites, or exposure to aerosolized virus, but it is unknown if these same modes of transmission also apply to Senecavirus A.

As the virus is a member of the Picornaviradae family excretion of these viruses occurs in faeces, saliva and the presence of a viraemic stage means that blood, meat and meat products and other products of animal origin may be a source of virus with transmission pathways relating to ingestion or inhalation of these secretions, excretions or products, or to fomites contaminated with them. Therefore, although there are no proven transmission routes for Senecavirus A, a range of transmission pathways should be considered until further evidence is available.

Most cases of idiopathic vesicular disease, which is associated with Senecavirus A, seem to occur between spring and fall.

### **Are there any public health concerns associated with Senecavirus A?**

Pork products are absolutely safe to eat. This disease is only infectious to swine and poses no threat to humans.

### **How did the virus enter Canada?**

It is not known how the virus arrived in Canada or how long it has been here. The first published case documents that in June of 2007, a ruptured vesicle, was noted on the snout of a pig from a trailer load of Canadian market hogs that arrived at a harvest facility in Minnesota from Manitoba.

In mid-September, 2016 pigs from Canada entered the U.S. with vesicular lesions and as a result were tested at the packing plant. They tested negative for a foreign animal disease. Subsequent loads were then checked at the border and sent back because of lesions. Since then, CFIA has commenced its own sampling and testing to verify that there is no threat of foreign animal disease. There were positive samples of Senecavirus A at assembly yards from Ontario. At this time, no farms have tested positive for Senecavirus A in Ontario or Quebec.

### **What is the Canadian Food Inspection Agency doing to control the disease?**

CFIA has executed its foreign animal disease protocols when dealing with Senecavirus A as its symptoms resemble Foot and Mouth disease. The agency is testing animals that are showing signs of the virus. Samples are sent to the National Centre for Foreign Animal Disease (NCFAD), located in Winnipeg. It is working with all industry groups to establish protocols moving forward.

### **How is Senecavirus A treated?**

Proven methods for prevention and control of Senecavirus A are lacking. Vaccination and elimination have been used to control FMD, which is caused by a similar virus.

- Common industry biosecurity practices should also be in place.
- Senecavirus A is a non-reportable disease in Ontario and Canada and there is no national surveillance program.

### **What has been the industry's response to the outbreak?**

Assembly yards moving sows across the border into the U.S. are most impacted at this time. Federal processing plants are closely monitoring the situation as any symptomatic animals at the plant would result in an immediate temporary plant closure. The Canadian Food Inspection Agency are testing animals that are showing signs of the virus. The USDA is refusing loads of animals that they suspect may be infected.

### **What are some of the biosecurity measures being implemented?**

Producers are encouraged to strengthen their on-farm biosecurity protocols that include measures addressing personnel, animal, and supply movements. Trucks, clothing, equipment, boots, and other tools should be thoroughly cleaned and disinfected before allowing them onto the premises.

### ***Cleaning and Disinfecting***

The efficacy of most disinfectants against Senecavirus A is not clearly known.

Because vesicular diseases are clinically indistinguishable, disinfection protocols for FMDV should be followed even if Senecavirus A is suspected. This includes use of: sodium hydroxide, sodium carbonate, 0.2% citric acid, aldehydes, and oxidizing disinfectants including sodium hypochlorite. In Canada, disinfectants that should be effective against Senecavirus A based on their spectrum of activity include, Virocid, Prevail, Synergize and Virkon.

Below are EPA-approved disinfectants USDA lists effective for FMD. For all disinfectants, be sure to follow labeled directions:

Foot-and-Mouth Disease*	1677-129	Oxonia Active	Ecolab, Inc.	Hydrogen peroxide Peroxyacetic acid
	6836-86	Lonza DC 101	Lonza, Inc.	Alkyl dimethyl benzyl ammonium chloride Didecyl dimethyl ammonium chloride Octyl decyl dimethyl ammonium chloride Dioctyl dimethyl ammonium chloride
	10324-67	Maquat MQ615-AS	Mason Chemical Company	Alkyl dimethyl benzyl ammonium chloride Didecyl dimethyl ammonium chloride Octyl decyl dimethyl ammonium chloride Dioctyl dimethyl ammonium chloride
	70060-19	Aseptrol S10-TAB	BASF Catalysts, LLC	Sodium chlorite Sodium dichloroisocyanurate dihydrate
	70060-30	Aseptrol FC-TAB	BASF Catalysts, LLC	Sodium chlorite Sodium dichloroisocyanurate dihydrate
	71654-6	Virkon S	E.I. du Pont de Nemours & Company	Sodium chloride Potassium peroxymonosulfate

#### Are there import/export issues?

Senecavirus A is not a federally reportable disease and does not currently present a risk to our international trade market. However, any vesicular disease in pigs may disrupt production flow if noticed on farms, assembly yards and/or processing plants as a definitive diagnosis is being pursued.

It is important that producers immediately report any suspicion to their herd veterinarian and CFIA so that further investigation can be pursued which may include the CFIA taking samples to ensure rapid rule out of catastrophic vesicular FADs such as FMD.

#### CFIA Offices:

<p><b>Barrie</b> 500 Huronia Road, Unit 103 Barrie, Ontario L4N 8X3 Telephone: 705-739-0008 Facsimile: 705-739-0405</p>	<p><b>North Bay (Sudbury and Sault Ste. Marie)</b> Canada Place 107 Shirreff Avenue, Suite 103 North Bay, Ontario P1B 7K8 Telephone: 705-495-5995 Facsimile: 705-495-5998</p>
<p><b>Belleville</b> 345 College Street East, Unit 6 Belleville, Ontario K8N 5S7 Telephone: 613-969-3320 Facsimile: 613-969-3721</p>	<p><b>Ottawa</b> 38 Auriga Drive, Unit 8 Ottawa, Ontario K2E 8A5 Telephone: 613-773-8660 Facsimile: 613-773-8672</p>
<p><b>Brockville</b> 300 Park Street Brockville, Ontario K6V 2J1 Telephone: 613-342-3682 /2740 Facsimile: 613-342-3306</p>	<p><b>Peterborough</b> 163 Simcoe Street Peterborough, Ontario K9H 2H6 Telephone: 705-742-6917 Facsimile: 705-742-8676</p>

<p><b>Guelph</b>  259 Woodlawn Road West, Suite A  Guelph, Ontario N1H 8J1  Telephone: 226-217-1200  Facsimile: 226-217-1211</p>	<p><b>Port Perry</b>  60 Van Edward Drive, Unit 6  Port Perry, Ontario L9L 1G3  Telephone: 905-985-1870  Facsimile: 905-985-8915</p>
<p><b>Hamilton</b>  709 Main Street West, 1 Floor, Room 101  Hamilton, Ontario L8S 1A2  Telephone: 905-572-2201  Facsimile: 905-572-2197</p>	<p><b>Sarnia</b>  Blue Water Bridge Corporate Centre  1555 Venetian Blvd.  Point Edward, Ontario N7T 0Y9  Telephone: 519-332-3031  Facsimile: 519-332-3879</p>
<p><b>London</b>  1200 Commissioners Road East, Unit 19  London, Ontario N5Z 4R3  Telephone: 519-691-1300  Facsimile: 519-691-0148</p>	<p><b>Thunder Bay</b>  977 Alloy Drive  Thunder Bay, Ontario P7B 5Z8  Telephone: 807-683-4370  Facsimile: 807-683-4383</p>
<p><b>Markham</b>  145 Renfrew Drive, Unit 160  Markham, Ontario L3R 9R6  Telephone: 905-513-2850  Facsimile: 905-513-2852</p>	<p><b>Fort Frances</b>  301 Scott street  Post Office Box 456  Fort Frances, Ontario P9A 3M8  Telephone: 807-274-5214  Facsimile: 807-274-3803</p>
<p><b>Mississauga</b>  1050 Courtneypark Drive East, Suite 155  Mississauga, Ontario L5T 2R4  Telephone: 289-247-4098  Facsimile: 289-247-4039</p>	<p><b>Walkerton</b>  19 Ontario Road,  Walkerton, Ontario N0G 2V0  Telephone: 519-881-2431</p>
<p><b>Mitchell</b>  Post Office Box 520  154A Ontario Road  Mitchell, Ontario N0K 1N0  Telephone: 519-348-0433  Facsimile: 519-348-4605</p>	<p><b>Windsor</b>  2000 Continental Avenue  Windsor, Ontario N9E 3P1  Telephone: 519-969-2522  Facsimile: 519-969-8202</p>
<p><b>Niagara Falls</b>  350 Ontario Street  Unit 13, Post Office Box 9  St. Catharine's, Ontario L2R 5L8  Telephone: 905-937-7434  Facsimile: 905-937-8020</p>	<p><b>Woodstock</b>  Post Office Box 20064  1401 Dundas Street East  Woodstock, Ontario N4S 8X8  Telephone: 519-539-8505  Facsimile: 519-539-7694</p>