



Data Collection Blitz: The Crampy Project

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We hear you!

Crampy cows are concerning to dairy farmers and we want to understand this syndrome better to develop tools and strategies that can reduce Crampy in the Canadian dairy population. Our project begins with a Data Collection Blitz to identify animals that exhibit Crampy symptoms in as many Canadian herds as possible.

Your participation

Data collection will begin in Fall of 2021 and run until Winter 2022 and we invite all dairy producers to participate. We have two easy options for recording and receiving Crampy cow data:

1. Enter data on-line at <https://lactanet.ca/en/crampy/>
2. Fill out and send us the completed Crampy data form. Paper form is available from a Lactanet representative and the digital form can be download at <https://lactanet.ca/en/crampy/>

Your data is your data

Worried about your data? Don't be — your data belongs to you. The results from the Data Collection Blitz are 100% confidential and will not be shared or made public.

A brief background

Bovine Spastic Syndrome (BSS), or “Crampy” as its commonly known to dairy farmers, is a chronic-progressive neuromuscular disorder that affects all breeds of cattle. Crampy usually affects older cattle and is characterized by spastic contractions in the muscle on one or both hindlegs, the back and eventually the entire body.

But Crampy doesn't show the same in all animals. The wide range and progression of symptoms makes this syndrome challenging to recognize and diagnose. It was first described in the early 1900's and since then researchers have struggled to find the root cause of the disease or possible cures. A widely accepted theory is that Crampy is a genetic syndrome, but we don't have accurate data to prove it – yet!

How to tell if your cow is Crampy

It is crucial that Crampy animals are identified when moving, standing, or sitting – as symptoms do not show while stagnant. Signs of Crampy usually start to show between the age of two to seven years old. In rare and unusual cases, the symptom can start as early as one year. At first signs, the animal starts to shake or push against the neck rail when rising. Mild attacks last only 15 to 30 seconds and affect only the hindlimbs, resulting in extended legs.

Crampy is a condition that progresses slowly, and mild attacks can occur for many years before they become severe. Severe attacks can last one to

three weeks and are followed by mild symptoms for up to six months. During severe attacks, muscles seem to be affected by spasms that last up to an hour or even longer. Animals have difficulty eating and lose production and weight — affecting profit and overall health and well-being. There is no specific drug treatment or permanent cure for Crampy. Consequently, affected animals can only be treated symptomatically, which negatively affects the animal's lifetime productivity.

Confusion with Spastic Paresis

Crampy isn't the only syndrome we are interested in for this study. Bovine Spastic Paresis (BSP) is another neuromuscular syndrome that causes upper limb lameness in dairy cattle. While there are many similarities between Crampy and Paresis, they are two distinct disorders. To accurately record the data for this study, it is important to know the differences and similarities as outlined in the chart below.

		Bovine Spastic Paresis (Paresis)	Bovine Spastic Syndrome (Crampy)
Differences	Age at onset	Calves Typically: 3-9 months Rare cases: up to 15 months	Mature animals Typically: 2-7 years Rare cases: as early as 1 year
	Clinical signs	Resembles a “pegged-leg”. Hindlimb that cannot touch the ground and swings like a pendulum. The hock is straight and rigid, and the tail carriage elevated.	Episodes of hyperextending hindlimbs usually accompanied by head raising and “stretching” behaviour. Early signs include shaking or pressing against neck rail when getting up. Mild cases usually have symptom free periods and worsens over time.
	Affected areas of body	Most commonly affects one hindlimb. In rare cases both hindlimbs may be affected, but one side is more severe.	Most commonly affects both hindlimbs, but can affect only one in some cases.
	Treatment	Surgical treatment possible.	Some intervention possible, but only to reduce symptoms.
	Similarities	Clinical signs and affected areas of the body	Symptoms in one or both hindlimbs, often increased angle of ankle joint, symptoms appear only in rising, standing and moving animals, no recovery of clinical signs.

Current monitoring and recording of Crampy

In Canada, the type classification program concentrates on the conformation assessment of cows during their first lactation. It records Crampy as one of several defective characteristics. Classification often takes place before the first onset of symptoms — meaning that the

prevalence of Crampy is underestimated. Nevertheless, the collection of this Crampy data over many years has shown that some sires have a higher Crampy prevalence in their daughters compared to other sires.

We need real on-farm data

The first step in developing tools that influence genetic selection is to implement a national data collection strategy where producers can subjectively identify animals in their dairy herd that are Crampy versus showing Paresis, without the assistance of a specialist such as a veterinarian.

To ensure accurate and complete data, we also ask producers to evaluate the level of severity of Crampy, an estimated age at onset, and provide the animal tag/registration number. Once you have this information, it can be quickly entered on-line, or the data form can be sent to Lactanet via email or mail.

Taking the first steps

We would like to thank all dairy farmers across Canada for their participation and strong interest in the Data Collection Blitz for the Crampy Project. We simply couldn't do this without you and greatly appreciate your support.

Have questions? Contact Caeli Richardson at crichardson@lactanet.ca for more information.





By Caeli Richardson