

VetQuest

PRACTICAL CASE STUDIES WITH SOLVET

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VetQuest

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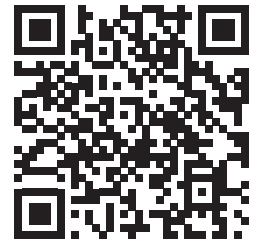
Over the past six years, we have introduced veterinarians across Canada to Solvet products inspired by daily requests for case-based veterinary medicine solutions.

We believe that the best solutions are driven by the interactions you experience with your clients.

Veterinarians have asked us for a platform to share their additional insights on our products based on real-life applications.

As a result, we are excited to launch Vetquest, a series of case studies enabling veterinarians to share experiences and observations from their client interactions.

If you have a case study that you would like to share with other veterinarians, please contact us, and we will be happy to prepare a case study to share your experience.



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Treatment of Alert Downer Cow Syndrome with K Phos-Boost® and Cal-Boost®

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Abstract

Case study of a small dairy herd that was experiencing a high number of downer cows post-calving. The cows were not administered anionic rations or calcium boluses at calving and were experiencing high postpartum rates of hypocalcemia and hypophosphatemia.

Cal-Boost and K Phos-Boost boluses were administered to all second lactation and greater cows post-calving and X-zelit (calcium binder) was added to the prepartum ration which dramatically improved cow health.

Background

The herd: This is a small herd of 38 adult cows and ten replacement animals. The herd is comprised of mostly older cows, and other older cows are purchased as replacements. This herd is not on a prepartum anionic ration and are not routinely administered calcium boluses at calving.

COW ID	LACTATION	CALCIUM mmol/l	PHOSPHORUS mmol/l	OUTCOME
7615	5	1.06	0.27	euthanized
155	6	0.83	0.20	euthanized
194	3	1.32	0.79	Got up

The Problem: From June 20, 2021, until August 2, 2021, the herd had seven cows calve. The attending veterinarian treated four cows for milk fever, of which two were euthanized after multiple treatments. In addition, blood minerals were analyzed for three cows before treatment. All three suffered from hypocalcemia and hypophosphatemia.

Actions Taken

In early August, the decision was made to administer two calcium boluses (Cal-Boost) and two phosphorus/potassium boluses (K Phos-Boost) to all second and greater lactation cows immediately after calving. Blood was taken from the coccygeal vein before bolus administration (6 cows) and around 12 hours after administration (5 cows). Around mid-August, a calcium binder (X-zelit) was added to the prepartum ration. Following these changes, only 1 of 10 multiparous cows was treated for a mild case of milk fever.

COW ID	LACTATION	CALCIUM mmol/l AT CALVING	PHOSPHORUS mmol/l AT CALVING	CALCIUM mmol/l 12 HOURS LATER	PHOSPHORUS mmol/l 12 HOURS LATER	OUTCOME
4218	5	1.79	0.28	1.93	1.16	OK
5768	5	1.81	0.45	1.39	1.15	Milk fever/ got up
219	2	1.94	0.29	1.96	1.23	OK
1636	7	1.54	0.47	1.58	1.11	OK
6778	4	2.31	0.6			OK
1654	8	1.86	0.5	2.14	2.21	OK

Discussion

Three changes were made to address the downer cow problem. The improved blood calcium concentrations at calving may be attributed to the addition of a prepartum calcium binder (X-zelit). The administration of calcium boluses after calving may also have prevented some cases of milk fever. However, blood phosphorus levels remained very low at calving.

A field study concluded that recumbent milk fever cases with a phosphorus level under 0.9 mmol/l before the first treatment were 12 times more likely to become Alert Downer Cows (*Ménard and Thompson CVJ 2007*).

The administration of 2 K Phos-Boost boluses immediately after calving increased serum phosphorus levels dramatically within 12 hours. While these changes solved the downer cow problem in this herd, proper prepartum and postpartum nutrition is the basis for a healthy transition period.