

MARCH  
2022

Update

  
EastGen

## Semen Tank Best Practices

That semen tank that sits in the corner of the barn office or vet room generally goes unnoticed except for the times that you are pulling out a dose of semen from one of your favourite sires.

The following will describe how to obtain the best longevity from your semen storage vessel, while ensuring that the dose you are about to put in the cow or heifer is as fertile as the day it was processed.

### SEMEN TANK STORAGE AND CARE

The modern storage tank will give you many years (10-12 minimum) if we consider its placement and maintenance. The rep that arrives every six or seven weeks will monitor liquid nitrogen (LN2) usage and keep a log on your behalf. The standard 20 litre farm use tank has a normal working duration of 142 days and will evaporate 0.09 litres per day, on average. These rates will vary, depending how often the tank is opened. The tank rep will alert the producer if nitrogen evaporation appears to be abnormal; beyond that, the basic maintenance of the semen tank is the producer's responsibility.

The tank should be placed in a well-lighted and ventilated area. Sufficient light above the tank ensures that one can see well down into the neck tube, allowing reference to the frost line (the importance of the frost line will be discussed). While gasification of liquid nitrogen is very slow, we should be aware of the presence of nitrogen gas and consider ventilation. While working out of the standard farm tank, an open door or slightly-open window is sufficient.

It is important that the tank is not placed directly on concrete, as moisture, minerals and abrasion from the concrete can corrode the aluminum outer shell of the tank. If perforation occurs, vacuum loss and tank failure is certain. Isolating the tank from concrete can be as simple as setting it on a 16-18 inch square wooden pallet or rigid foam. Some choose to take it to the next level and mount the tank on a slide-out incorporated into a cabinet. Tank storage in the milk house should be avoided, as cleaning chemicals can be corrosive to the outer shell, and high temperatures and humidity are not the best environment.

If it is necessary to clean the tank, then mild soap and water is sufficient. Rinse carefully while **not** using a strong jet of water to avoid getting water down into the neck cork. This can freeze

the neck cork solidly in place, not allowing nitrogen gas to escape. The build-up in pressure can rupture the tank, with disastrous results.

Move the tank as little as possible. If moving the tank is necessary, lift the tank with both handles to keep it relatively level. If carrying any distance, get help or use a cart – a full tank weighs 28.5 kg. Avoid rough handling or dropping the tank, as it can damage the seal between the neck tube and inner liner, resulting in vacuum loss. Vacuum loss and imminent tank failure is indicated by a rapid frost build-up around the outside of the neck tube. If this is observed, get the semen inventory moved to another tank as soon as possible. A tank in this state can go dry in a matter of hours. Get into the habit of flipping up the lid and having a quick look at the tank whenever you are passing by. Plastic measuring sticks are also available from your A.I. company, allowing the producer to check nitrogen

levels between delivery visits. Simply lower the measuring

*Cont. on pg. 2*



Maintain regularly,  
Handle with care



### Notice of Annual General Meeting of Members of EastGen Incorporated

Notice is hereby given that the Annual Meeting of the Members of EastGen will be held virtually and hybrid if possible on the 31st day of March, 2022 at the hour of 10:00 a.m. in the forenoon to:

- Receive the financial statements of EastGen for the period ending December 31, 2021;
- Appoint auditors and authorize the directors to fix the remuneration of the auditors;
- Transact such further and other business as may properly be brought before the meeting or any adjournment thereof.

By order of the Board of Directors, Brian O'Connor, Secretary-Treasurer

**Thursday, March 31, 2022**  
**10:00 a.m. – 12:30 p.m.**

stick to the bottom of the tank and allow it to cool. Withdraw the stick and read the level of frost, indicating the level of nitrogen. Always use a plastic or wooden measuring stick in liquid nitrogen, as metal transfers cold too quickly. **Never** use a piece of pipe to measure nitrogen levels - you will get a liquid nitrogen shower within seconds.

When finished removing semen from the tank, replace the neck cork. If a tank is left open, it will not go dry, but increased nitrogen gasification will result. Damaged neck corks should be replaced. A broken neck cork that falls into the tank is no fun to retrieve.

Keep the tank locked when not in use for your own security and to prevent potential serious injury to children. Kids have a fascination with LN2 because of its properties, likely having heard stories of freezing objects and watching them shatter when dropped.

### TRANSPORTATION OF LN2

Liquid nitrogen tanks must be securely tied down in the bed of a pick-up truck when transporting. TDG (Transportation of Dangerous Goods) regulations prohibit LN2 tanks in the passenger compartment of any vehicle. TDG regulations also require safety labels on the tank. Your AI company is required by law to have these labels affixed in the proper locations on the tank prior to delivery. Any tank that is in transport must have these labels replaced/refreshed as needed.

### SAFETY AND FIRST AID

As mentioned, provide adequate ventilation in the area where your tank is stored, with thought given to the person that is filling your tank, as extra vapor is produced during filling.

Hang a pair of safety glasses beside your tank and wear them! A drop of LN2 in the eye can cause serious damage.

Contact with LN2 will cause freezing of tissue, much like severe frostbite. Flush the contact area with cool or luke-warm water. For severe burns or blisters, seek medical care immediately.



In a spill situation, nitrogen becomes a gas which displaces oxygen. To a person in that area, symptoms of oxygen deficiency appear quickly – headache, dizziness and eventual unconsciousness. CPR must be performed quickly on a person found in this state.

### PROPER SEMEN HANDLING AT THE TANK

The inseminator's success with A.I. starts at the tank. In other words, if semen is not handled properly before loading the A.I. gun, then conception rates are compromised before one even walks up to the cow.

With the use of cryogenics, bull semen can be stored indefinitely when frozen in the lab and maintained in LN2 at temperatures of minus 195 degrees Celsius. When exposed to temperatures above minus 140 degrees Celsius, damage can occur to the semen in a matter of seconds, greatly reducing its potency and conception rates will drop.



## EastGen Youth Shows

With the hope that EastGen's live youth events can safely be back on track this year, here are the 2022 dates we've set for these events featuring education and show components for competitors ages 14-21 as of January 1st. Watch for further updates.

**EastGen Showcase - July 5-6, Spencerville, ON**

**EastGen Atlantic 4-H Showcase - July 6-8, Truro, NS**

**EastGen Challenge West - July 7-8, Woodstock, ON**

**EastGen Challenge East - July 12-13, Markham, ON**



a finger technique to achieve this. For the owner-inseminator, we always suggest using a clip to secure the cannister below the critical zone.

Once we are certain that the cannister is in a safe place, then we can carefully raise the cane to retrieve a semen straw with a pair of pre-cooled tweezers. The visou tubes that contain the straws will contain some LN2, allowing us about 5 seconds in the critical zone (the area between the frost line and the top of the neck tube) with the cane. During this time, it is imperative to keep the top of the cane below the top of the neck tube.

Once we are confident in our abilities to follow best practices in tank care and semen handling at the tank, then we must follow best practice guidelines for the remainder of the A.I. procedure (straw and gun preparation, semen placement in the cow, etc.). With all these factors considered, and paying attention to all the small details, we can expect better than average conception rates.

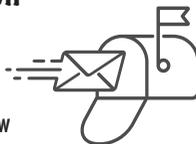
**Remember, an open cow makes no milk or money!**

There is a visible frost line located at 10 cm (4 in) below the top of the neck tube. Temperatures rise dramatically above this point. If cannisters are raised above this line for even a short period of time, partial thawing can occur. When the cannister is lowered back into the tank, re-freezing occurs, and irreparable damage is done.

The easiest way to manage this problem is to ensure that a cannister stays just below the frost line while retrieving a straw of semen. An experienced technician will have no trouble using

### The next Genetic Evaluation Release date is April 5th

Watch for highlights and updates on our new dairy sire line-up, and follow EastGen on social media. [Twitter](#) [Instagram](#) [Facebook](#)



## EastGen Staff Appointments

Recent retirements and staffing changes have prompted EastGen to welcome new hires and congratulate those who have recently been appointed to new roles within the company.



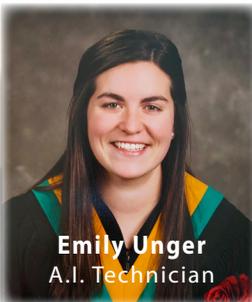
**Jean Bilodeau**  
A.I. Technician



**Matt Forestell**  
Regional Sales Rep.



**Derek Kennie**  
Reg. Sales/A.I. Tech.



**Emily Unger**  
A.I. Technician



**Jessie Weir**  
Executive Assistant

**Jean Bilodeau** is the new A.I. Technician in Eastern Ontario's District 51. Jean previously worked for EBI, CIAQ and Gencor. He has been working for Select Sires for the past 10 years.

**Matt Forestell** is a new Regional Sales Representative in Central Ontario. Matt joined EastGen in January 2021 as an A.I. Technician and most recently has also been working as a Regional Sales Representative in Northern Ontario.

**Derek Kennie** has transitioned into the role of Hybrid Regional

Sales Representative/A.I. Technician serving PEI. Derek joined EastGen as an A.I. tech. in 2013.

**Emily Unger** recently joined EastGen as a Contract/Casual Part Time A.I. Technician working in Western Ontario. She is a recent graduate of both UofG-Ridgetown and Lakeland College.

**Jessie Weir**, whose varied career began with UBI in 1985, was recently appointed to the role of Executive Assistant to the General Manager.

# Special

March 1<sup>st</sup> - April 30<sup>th</sup>, 2022



## Estrotect Heat Detector

- Estrotect™ Heat Detectors are proven tools that help dairy & beef producers identify their animals for the maximum opportunity for pregnancy
- More than 25 million units used worldwide
- Supported by university research and over a decade in the marketplace
- Easy to use peel & stick
- No messy glue required

<b>Estrotect</b> 50/pkg	#868	Regular \$87	<b>Sale \$</b> <b>\$80</b> /pkg
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- Valuable heat detection aid that helps in identifying cows ready for AI
- These pressure sensitive devices have a built-in timing mechanism designed to be activated by standing heat behaviour
- Glued onto the sacrum (tail head), pressure from the brisket of a mounting animal requires approximately 3 seconds to turn the detector from white to red



## Kamar Heatmount Detectors

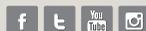
<b>Kamar Kits</b> 25/pkg (glue included)	#701	Regular \$50	<b>Sale \$</b> <b>\$45</b> /pkg
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- Contains only enzyme producing bacteria
- Pre-packaged pucks
- No mixing required
- Expedites manure digestion
- Will liquefy solid material so that it's easier to agitate, pump and irrigate
- Maximum odour reduction
- Better soil penetration
- Cleaner manure pits and pipes
- Easy to use



## BactZyme Premium Blocks

<b>BactZyme</b> Premium Blocks 50/pail	#829	Regular \$595	<b>Sale \$</b> <b>\$550</b> /pail
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www.eastgen.ca

**Online Store**

<https://store.eastgen.ca>