

Semen handling and storage

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Semen is fragile and must be handled properly to achieve the best results. Semen is packed in mini straws of 0,25 ml and medium straws 0,50 ml. It is stored in liquid nitrogen at a temperature of -196°C. Kept at this temperature, semen will last for years. Maintaining the correct temperature is important, as a temperature rise and subsequent refreezing will damage semen. If mini-straws are exposed to air for longer than two seconds, temperatures may rise high enough to damage semen.

Make sure liquid nitrogen covers the straws at all times and fills the goblets (semen containers) while semen is stored in the tank. Semen straws may maintain their fertility when they are stored in liquid nitrogen vapour, but two problems may occur if the liquid nitrogen level is allowed to drop to a very low level:

- The straws will be open to temperature damage if they are lifted into the neck of the tank without liquid nitrogen present in the goblet. The temperature increases rapidly towards the top of the neck of the tank
- Nearly empty goblets may float out of the canisters when the tank is refilled with liquid nitrogen. Although there is no need to panic if the liquid nitrogen level gets low, it is much better to keep the straws covered with liquid nitrogen.

Remember, semen is a fragile commodity, and is also perishable – handle it carefully. Exposure to direct sunlight, dust, water, soap powder or rough handling, might reduce conception rates. Positively identify the bull before removing straws from the liquid nitrogen tank.

When working with liquid nitrogen, it is important to take special safety precautions. Liquid nitrogen is dangerous and must be handled with care. Avoid contact with the liquid and the cold nitrogen gas coming from the liquid. It can cause burns. It is important to:

- Secure the nitrogen tank at all times when it is being transported
- Never use a lid other than that supplied with the tanks. Wrong lids may interfere with the evaporation of gas and may cause the tank to burst
- Check the tank regularly for signs of frost on the outside and for excessive loss of liquid nitrogen
- The tank should be kept in a secure place so that children and people who do not know of its dangers do not have access to it.

First aid for liquid nitrogen burns:

Immediately flood the area with cold water and apply a cold compress. Do not rub the affected area. Call a doctor if there is any chance that the eyes have been affected or if the skin blisters. **UM**

