

Livestock Watering FACTSHEET



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ENERGY FREE WATER FOUNTAINS

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Energy Free Water Fountains

From 1990 to 1993 PAMI compared three energy free livestock water fountains and four electrically heated ones. Here's what we found.

Do Energy Free Fountains Work?

Energy free fountains come in a variety of styles and offer different combinations of features. In PAMI tests, only one fountain didn't measure up in a Canadian prairie winter. Average temperature during the test period of 22 weeks was 12°F (-11°C), with average temperatures as low as -15°F (-26°C) over a 4 week period.

Energy free water fountains do work in cold prairie winters, but certain critical conditions must be met. Here's a checklist:

- They must be properly designed.*
Find out where the fountain was manufactured. Some are designed for milder winters, but can't be relied on during sustained periods of cold.
- They must be properly installed.*
Close attention to proper installation will help ensure trouble free operation. See the diagram below and Installation Tips.
- They must be properly maintained.*
You'll want to do daily checks on the fountain, especially in extreme cold. Animals are sloppy drinkers, so run off from their mouths tends to freeze up the drinker lids. Routinely chipping this ice away helps ensure an uninterrupted water supply to your animals. See the Maintenance Schedule.
- They must be properly adjusted.*
Follow the manufacturer's instructions to properly adjust the water level in your particular fountain.
- The fountain must be properly sized.*
A properly sized water fountain for your

herd is important. Too few animals drinking from a fountain that is too large can lead to freeze up. See the energy free fountain sizing guide.

- The fountain must be used regularly.*
If livestock are removed, the water supply must be shut off, and the valve and water bowl drained to prevent freeze up.
- The ground water temperature must be warm enough.*
In PAMI tests, the ground water came from a well and the temperature remained constant at around 45°F (7°C). Dugout water or other sources of surface water would likely be colder, and may be risky.

Typical installation of Energy Free Fountain

This 4 page publication contains excellent information which may be of assistance to you. It is available as a free download directly from the Prairie Agricultural Machinery Institute (PAMI) website in the [Index of Reports](#) section of the **Producer Info** link. You will find the publication in **Group 5 Livestock and Dairy Equipment** in the **SubGroup 5h** section titled **Stock Watering Equipment**.