

# DAIRY VETERINARY NEWSLETTER

October 2011

**Bovine Pregnancy Test at UVDL, Freezing Syringe Guns Between Uses, Calf Warming Boxes, Solar Power on Dairies, Utah Farms Lead Nation in Computer Access, Rectal Palpation and Early Pregnancy Loss**

The following is an announcement in memo form that will be distributed via several forums to the dairy industry regarding the new IDEXX Bovine Pregnancy Test offered by the Utah Veterinary Diagnostic Laboratory. An electronic version is available by email if requested. (It is continued onto the next page.) Just for clarity, I want to state that this is not intended to discourage rectal palpation or other reproductive diagnostic services offered by veterinarians. This is simply a tool that is gaining in popularity in the dairy industry, and sometimes makes scheduling all aspects of herd health work easier for both producers and veterinarians.



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TO: Dairy producers, veterinarians, and other members of  
the dairy industry

FROM: Dr. Tom Baldwin, Director of Utah Veterinary Diagnostic Laboratory  
Dr. Dave Wilson, Dairy Extension Veterinarian, Utah State University  
Dr. Kerry Rood, Livestock Extension Veterinarian, Utah State University  
Mr. Chris Tucker, Rocky Mountain DHIA

DATE: October 20, 2011

RE: Bovine Pregnancy Test from IDEXX offered by the Utah Veterinary Diagnostic Laboratory

The IDEXX Bovine Pregnancy Test is now available through the Utah Veterinary Diagnostic Laboratory (Logan facility). The results are highly accurate, and are comparable to rectal palpation for pregnancy diagnosis. The test detects pregnancy associated glycoproteins in serum from pregnant cattle.

**Quick Facts:**

1. Cow conditions under which test can be run: At least 60 days since calving, and at least 28 days since last breeding
2. Cost: 1 to 5 samples = \$5.00 per sample; 6 or more samples = \$2.50 per sample
3. Sample: Bovine serum. Minimum of 2 ml of blood or serum in red top tube or 2 ml of blood in serum separator tube.
4. Turnaround time: Samples received by Monday - results available on Tuesday. Samples received by Thursday - results available on Friday.
5. Hemolysis: The Bovine Pregnancy Test cannot be performed on hemolyzed samples.

If you have any questions please call the Utah Veterinary Diagnostic Laboratory at (435) 797-1895

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**Freezing Syringe Guns Between Uses**

This item comes under the heading of what one of my long-time colleagues calls “Cowboy Science”. I can find nothing at all published in refereed journals regarding this, but I still like the idea. This was posted in the Dairy Herd Network electronic newsletter on August 9, 2011. Kip Lukasiewicz at a Holstein feedlot in Nebraska says that to help keep automatic/pistol grip syringes clean of microbial growth between uses, he has employees keep them in the freezer. Of course washing them thoroughly after each use is essential, so I would think that some allowance for thawing them so they work after you take them out of the freezer is needed.

**Calf Warming Boxes**

Removing calves from the calving environment, keeping them isolated until they are dry, and warming them are all facilitated by calf warming boxes. Michigan State University’s Dairy Herd has used them for several years. Similar to the item above, I can find no data regarding calf health or survival in association with warming box use, but isolating, warming and drying neonatal calves have all been shown to benefit calf health. Anecdotal reports say that diarrhea is less prevalent in calves when the boxes are used. At MSU, calves are towel-dried and moved to the warming boxes using a calf sled as soon after birth as practical. They keep calves in the boxes for approximately 24 hours, and then move them to hutches. Colostrum feeding, navel dipping, or other practices for newborn calves are done in the warming boxes. As a general guideline, they suggest one box per 25 cows, without specifying the cow population described. (I think that one box per 25 lactating cows in the herd would be a lot if calves only stay in them for the first day or so of life?)

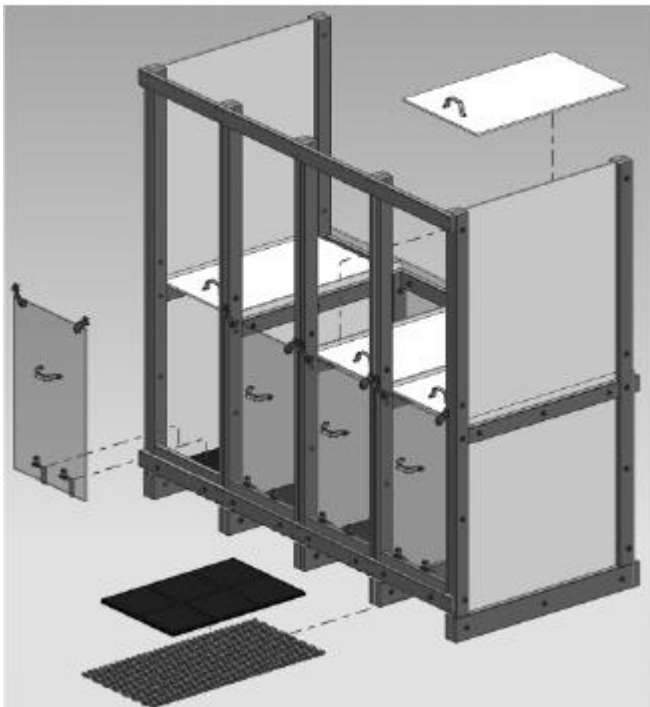
A table and some illustrations follow on the next 2 pages. (I realize that Figure 3 is a little hard to read but except for sizing it, I can’t do anything else.) - -

Here is a table from Michigan State University with some supplies and cost estimates for calf warming boxes:

Table 1: Construction materials, sources, and costs for one calf box.

Material	Source	Cost Estimate (January 2011)
2 - 4 ft x 8 ft x ½ inch plastic wood	Plastic Lumber Yard <a href="http://www.plasticlumbaryard.com">www.plasticlumbaryard.com</a>	\$318.00
1 - 2 ft x 4 ft x ½ inch clear acrylic sheets - Item # 44386	US Plastics <a href="http://www.usplastic.com/">http://www.usplastic.com/</a>	\$124.63
4 - 2 inch x 4 inch x 8 inch plastic dimensional wood	Plastic Lumber Yard <a href="http://www.plasticlumbaryard.com">www.plasticlumbaryard.com</a>	\$70.40
1 - 2 inch x 6 inch x 10 inch plastic dimensional wood	Plastic Lumber Yard <a href="http://www.plasticlumbaryard.com">www.plasticlumbaryard.com</a>	\$35.20
Rubber coated expanded metal grating	Foxworthy Supply <a href="http://www.foxworthysupply.com/">www.foxworthysupply.com/</a>	\$105.70
1500 Watt Heater - Item # PD 95-92	Foxworthy Supply <a href="http://www.foxworthysupply.com/">www.foxworthysupply.com/</a>	\$105.70
Thermostatically controlled extension cord - Item # 2E535	Grainger Supply <a href="http://www.grainger.com">www.grainger.com</a>	\$91.50
Galvanized pan head bolts	Local hardware	--
Door handle - Item # 1WAE9	Local hardware	--
2- Safety hasp - Item # 1RBP7	Local hardware	--

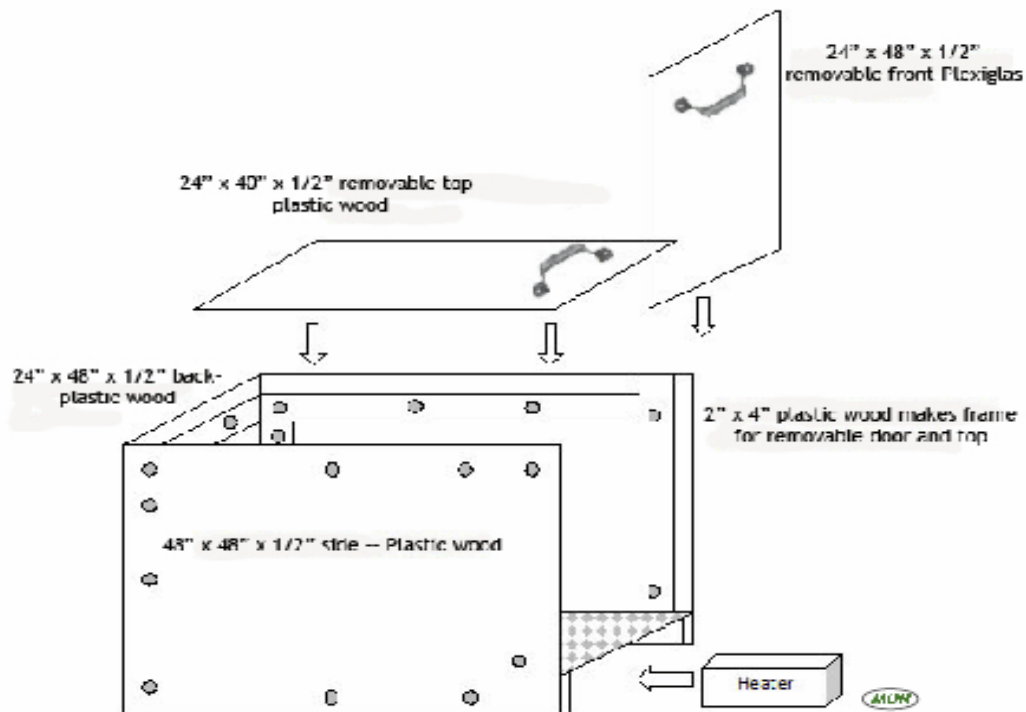
Figure 1: Drawing of calf warming boxes constructed at Michigan State University Dairy Cattle Teaching and Research Center.



**Figure 2: Calf warming box in action at Michigan State University Dairy Cattle Teaching and Research Center.**



**Figure 3: Dimensions of an individual calf warming box as built at Michigan State University Dairy Cattle Teaching and Research Center. (Note: Top panel is slightly shorter than sides and bottom to allow for top ventilation).**



## **Solar Power on Dairy Farms**

There is an interesting video on solar power usage on a Michigan dairy, Reid Dairy Farm, posted in the Dairy Herd Network electronic newsletter on August 30, 2011. It can be seen at:

<http://www.dairyherd.com/dairy-resources/hot-topics/Michigan-dairy-farm-harnesses-solar-energy--128466658.html>

The solar panels account for 30% of the energy usage on the farm according to the video; and again this is a farm in Michigan. When I did a residency at Michigan State University years ago, I did not come to think of Michigan as an especially sunny part of the country compared to the Intermountain West. In addition to the high proportion of sunny days here, the thin air in Utah and other high altitude regions of the West is also said to be conducive to solar power.

Rocky Mountain Power has a Utah Solar Incentive Program, with a website:

[http://portal.ecosconsulting.com/rmp\\_solar](http://portal.ecosconsulting.com/rmp_solar)

It appears that the next year for which non-residential businesses can apply is 2012. The maximum financial incentive for 2011 was \$23,250. Solar panels need at least a 20 year warranty (as in the Michigan video) and the inverters that convert DC to AC power need at least a 5 year warranty. Qualified Utah contractors must do the installation. The website directs the user through the application steps and forms.

## **Utah Farms Lead Nation in Computer Access**

This comes from a Utah Dairy Newsletter (September 2011) article by Allen Young. The USDA National Agricultural Statistics Service, Utah Field Office reports that 85% of Utah dairy farms have computer access, the highest percentage in the U.S. 79% of farms in Utah have internet access. Reaching clients by email and other electronic means is often readily accomplished in Utah.

## **Rectal Palpation and Early Pregnancy Loss**

This is from a paper in the September 1, 2011 issue of the JAVMA by J.E. Romano et al.

A study of 476 control (no rectal palpation) cows and 452 palpated cows evaluated the effect of rectal palpation using one (230 cows) or two (222 cows) fetal membrane slips for pregnancy diagnosis on pregnancy loss in dairy cattle. Ultrasound was used to diagnose pregnancy at approximately 31 days after estrus and cows were randomly assigned to the 2 groups and then into the 2 subgroups of 1 or 2 membrane slips.

All palpations with either one or two membrane slips were performed by one veterinarian between days 34 and 43 after estrus. All cows were reevaluated by ultrasound on days 45 and 60 to determine viability of the embryo and fetus.

Between 31 and 60 days of gestation, pregnancy loss for the control, one-slip, and two-slip groups was 14.5%, 12.6%, and 14.9%, respectively. The conclusion of the paper was that pregnancy diagnosis by one or two fetal membrane slips performed during palpation in early gestation did not increase pregnancy loss in dairy cattle.

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Please let us know your comments and also suggestions for future topics. I can be reached at (435) 760-3731 (Cell), (435) 797-1899 M-W, (435) 797-7120 Th-F or [David.Wilson@usu.edu](mailto:David.Wilson@usu.edu).

A handwritten signature in blue ink that reads "David J. Wilson".

David Wilson, DVM  
Extension Veterinarian

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