



A Unique BVDV Screening and Identification Protocol.

BVD 2006 CONFERENCE

Why is There BVDV in the USA?

- **Industry Resistance**
- **Lack of Individual Identification**
- **Lack of Good Screening Tools**

A Perfect PI BVDV Screening Test

- **100% Sensitivity**
 - Moderate Specificity is OK
 - Acute vs Persistent Infection
- **High Throughput**
 - Sampling
 - Assay Technology
- **Low Cost**

Current BVD Diagnostic Tests

VI	IHC	ELISA	Single Sample PCR	
Good	Good	Good	Good	Sampling
Poor	Poor	Good	Poor	Throughput
Poor	Poor	Fair	Fair	Turn Around
Good	Good	Good	Good	Sensitivity
Fair	Fair	Good	Poor	Technology
Poor	Poor	Fair	Poor	Cost

Reverse-Transcriptase Polymerase Chain Reaction on Pooled Samples to Detect Bovine Viral Diarrhea Virus by Using Fresh Ear-Notch-Sample Supernatants

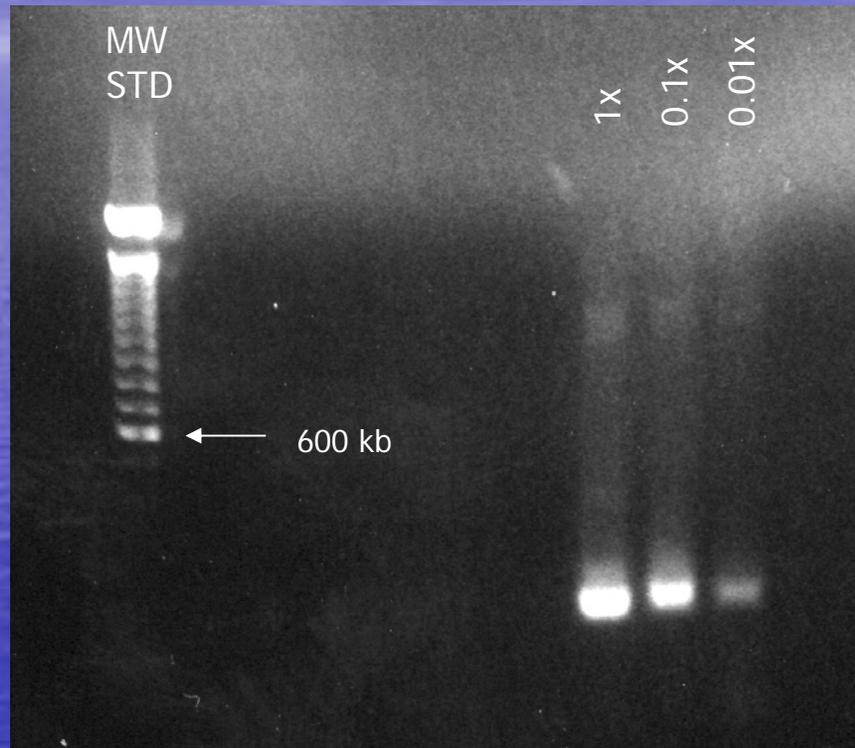
**James A. Kennedy, Robert G. Mortimer,
Barbara Powers**

**J. Veterinary Diagnostic Investigations
(2006)**

PCR Analysis of Pooled Samples

- **Jim Kennedy's Screening Protocol**
 - **Screen 100 Pooled Samples per PCR Reaction**
 - **Sort and Confirm Positives by ELISA**
 - **Demonstrated Sensitivity and Specificity**

Detection of BVDV RNA by RT-PCR



PCR Analysis of Pooled Samples

- **Issues**
 - **Technically Challenging**
 - **Throughput is Moderate**
 - **Polymerase Inhibitors**

PCR Analysis of Pooled Samples

- **Potential Solutions**
 - **Real Time Analysis**
 - **Optimize RNA Preparation**
 - **Automation**

Front End Obstacles

- Identification
- Sampling
- Shipping

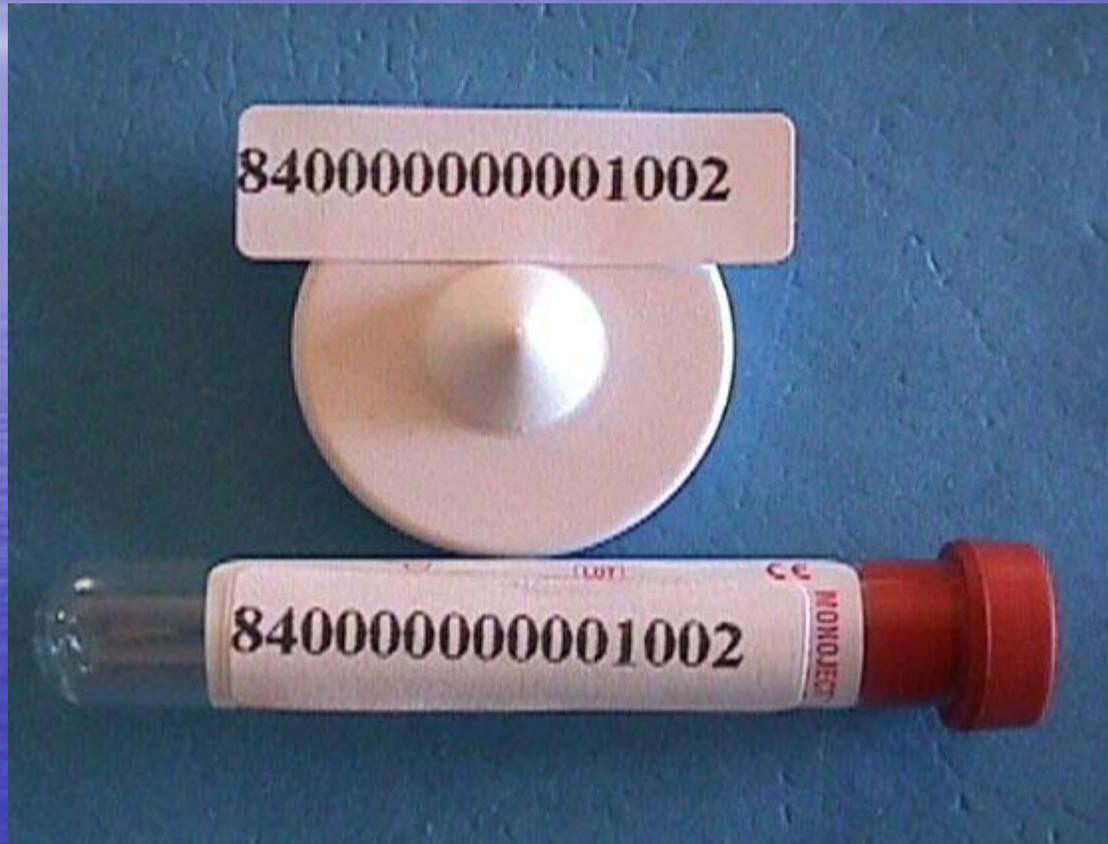
WriteTAG™

Stores all information on the tag



- Ranch ID
- Birth date
- ISO #
- Visual ID
- Treatment date

Sampling



A Unique BVDV Screening and Identification Protocol.

- **Sampling**
- **Shipping**
- **Write Tag**
- **Screening and Diagnosis**
- **Consulting**



**Special Thanks to James Kennedy,
DVM**

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