

Advancements in EID Technology

*By Mr. Mike Brorby, President
MacSema, Inc.*

MacSema, Inc. is an electronics company based in Bend, Oregon. We have introduced an Animal Information System (AIS) based upon Memory Button Technology. The system is designed to compliment and enhance existing livestock identification and information methods. We believe our system will help provide producers and packers with better information on individual animal performance.

Our AIS system offers an automatic link between live animal and carcass performance as an animal's complete record can be stored on an electronic DataTag. The DataTag functions as a portable database that provides permanent ID and production data, immediate field access to an animal's records and data can be quickly downloaded to a PC. Our system is also compatible with computerized weighing systems.

Various applications include commercial cow/calf operations, purebred producers, feedlots, packing plants, production trials and research facilities.

DataTag Features:

- Portable Database - 256 to 8K bytes of data
- Information retrieved instantaneously
- Information written to instantaneously
- Data retained with perfect integrity
- Rugged/Tamper-Resistant
- Temperature Tolerant -40 to 175 F
- Weatherproof - can be read wet/dry
- Safe: Battery free; no hazardous substance
- Versatile - store any information; can be reformatted
- Extremely low loss factor

DataBrander Features: (Runs with AIS software package)

- Reads from and writes to DataTag
- Displays DataTag information on screen
- Stores data and downloads to PC
- Can interface directly with printer or modem
- Compatible with computerized scales
- Temperature tolerant -4 to 158 F

Some different types of applications include:

- Ranch Information
 - Animal ID
 - Operation ID
 - Production Data
 - Sire
 - Dam
 - Birth Weight
 - Weaning Weight
 - ADG Calculations
 - Inoculation Data
 - Health Data
- Feedlot Information
 - Facility ID
 - Production Data
 - Weight Calculations
 - Vaccination Data
 - Health Data
 - Feed Information
- Packing Plane Information
 - Plant ID
 - Carcass Data
 - Weight
 - Grade
 - Inspection
 - Lot Numbers

Many applications exist for use in the livestock industry ranging from the tagging of mother cows, new calves, weanlings and feeder animals. A broad spectrum of data can be collected from live animals and then the process can be continued through the packing plant with the use of a trolley tag containing a DataTag that is read by a reader along the trolley.

Thank you for allowing me to present our product to you and a special thanks to LCI for inviting us to the symposium.

Overview**BETTER INFORMATION LEADS TO HIGHER QUALITY PRODUCTION AND INCREASED REVENUES**

- Offers an automatic link between live animal and carcass performance
- Animal's complete record can be stored on an electronic DataTag™ Portable Database in an Eartag

- Provides permanent identification and production information
- Provides immediate field access to animal's records
- Systems are compatible with computerized weighing systems
- Animal records can be quickly downloaded to a PC
- Animal Information Systems software is easy to use and customize

Applications

- Commercial cow/calf operations
- Purebred breeders
- Feedlot operations
- Packing Plants
- Production Trials
- Research Facilities

DataTag™ Features:

[See Photo](#)

- Portable Database: Stores from 256 to 8K bytes of data)
- Allows information to be retrieved instantaneously
- Allows information to be written instantaneously
- Data is retained with perfect integrity
- Rugged!- Tamper Resistant
- Temperature tolerant: -40 to 175F
- Weather proof/Water proof: can be read wet/dirty
- Safe: Battery free/ No hazardous substances
- Versatile: Can store any information and can be reformatted
- Extremely low loss factor

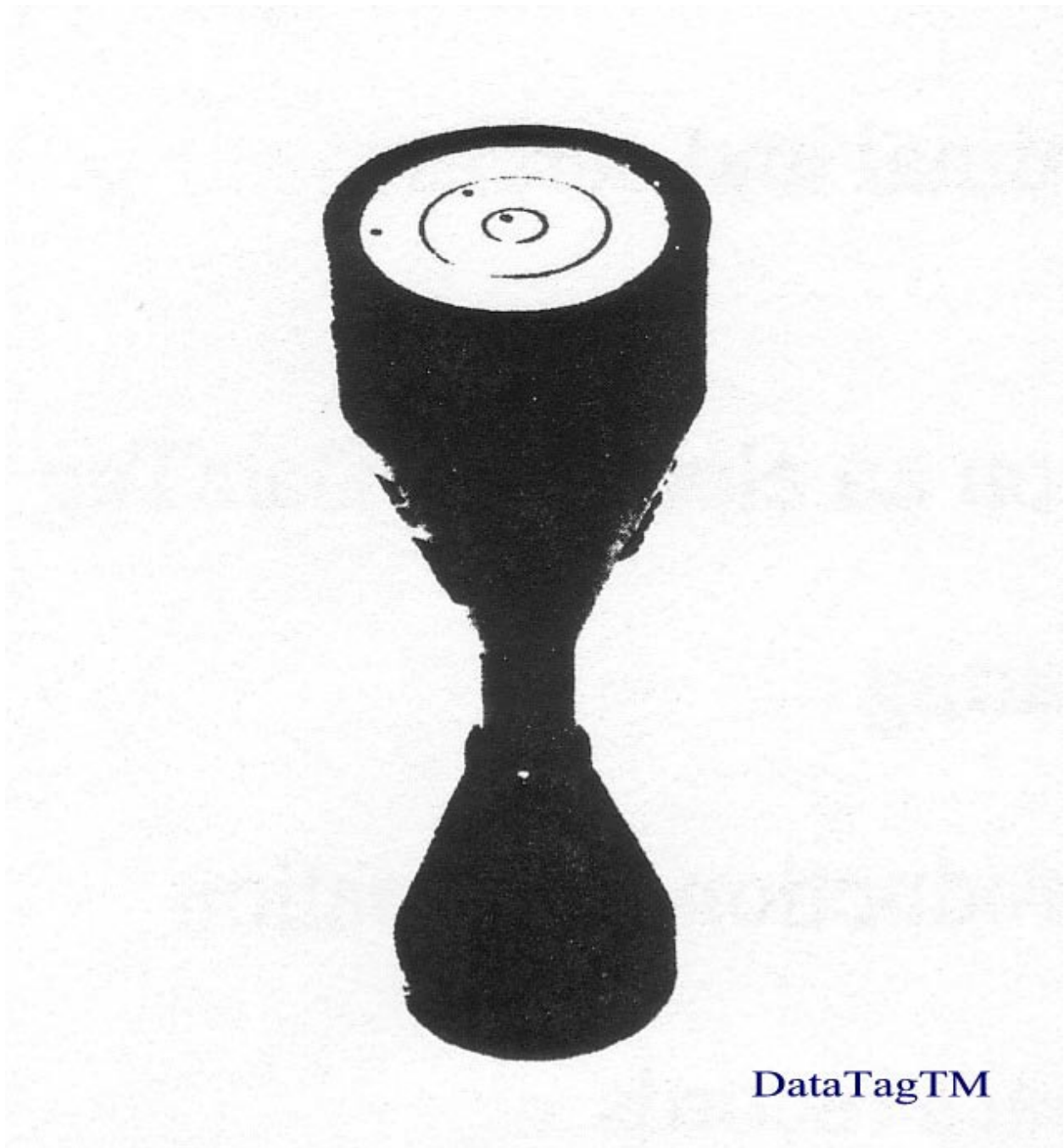
DataBrander™ Features:

[See Photo](#)

- Runs with AIS software package
- Reads from and writes to DataTags
- Displays DataTag information on screen
- Stores data and downloads to PC (AIS software)
- Can interface directly with printer or modem
- Compatible with computerized weighing systems
- Rugged: operates in temperature range of -4 to+158F

[Figure 1](#)

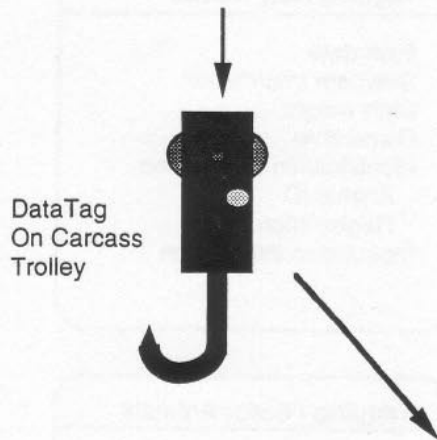
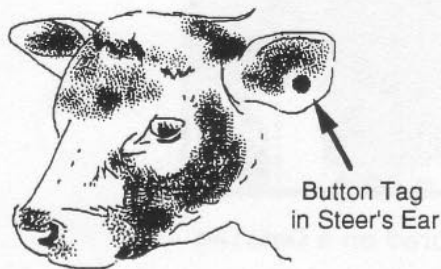
[Figure 2](#)





Better Information Throughout Production

Complete Animal Record on DataTag™



RANCH INFORMATION:

- Animal ID
- Operation ID
- Production Data
 - Sire:
 - Dam:
 - Birth Wt.
 - Weaning Wt.
 - Average Daily Gain Calcs
- Inoculation Data
- Health Data

FEEDLOT INFORMATION

- Facility ID
- Production Data
 - Weight Calcs.
 - Other performance stats.
- Vaccination Data
- Health Data
- Feeding Information

PACKING PLANT INFORMATION

- Plant ID
- Carcass Data:
 - Weights
 - Grades
 - Inspection
 - Lot Numbers

Final Information

to original producers via central database or electronic bulletin board

END RESULT

Better Information leads to higher quality production and increased revenues.



An Example of the Information stored on a DataTag

Tagging Mother Cows

- Identification
 - Animal ID
 - Registration No.
- Ownership
- Sire/dam information
- Birth/Weaning information
- Condition: Open/Bred
- AI/ET information
- Vaccination information
- Progeny records

Tagging New Calves

- Birth date
- Sire/dam Information
- Birth weight
- Ownership
- Identification Information
 - Animal ID
 - Registration No.
- Inoculation information

Tagging Older Calves

- Birth/Weaning dates
- Sire/dam Information
- Ownership
- Identification Information
 - Animal ID
 - Registration No.
- Birth/Weaning Weights
- ADG calcs.
- Vaccination information

Tagging Feeder Animals

- Identification
- Ownership
- Date received
- Incoming weights
- Vaccination information
- Health information
- Pen/lot numbers
- Feeding information