Santa Teresa MX-US Livestock Border
UHF Pilot
April 2017
1) MX Union
Receiving Chutes

2) MX Union
Check in scales

3) MX Union
Pre USDA
inspection holding pens

4) USDA Inspection

5) MX Union
dipping vats

6) MX Union
Staging pens for
crossing the border

7) Livestock alley
for crossing to US

8) MX Union
US side
holding pens

9) MX Union,
US side
shipping chutes

MX-US border

USA

MEXICO

Fort Supply Technologies
Effective asset and livestock tracking solutions
Project Goals and Results

1) Test the viability of long range, passive (no battery) UHF RFID bangle style livestock ear tags, readers and data collections systems to improve and/or provide:

a) Speed and accuracy of livestock inspections at MX-US borders and
   i. Results=> Exceeded expectations. UHF 100% accurate. Never waiting on the UHF system to process livestock except for some training.

b) True traceability
   i. Results=> Traceability provided from shipping back to MX producer.

c) Single tag (with redundant back up) to replace:
   1) Three current tags for spayed heifers
   2) Two current tags for steers
   i. Results=> only needs approval by US and MX officials.
Project Goals and **Results** (cont)

2) Ease of tagging at producer.
   a) **Results**=> No reported issues tagging. Simple two piece tag design

3) Ease of uploading data to USDA.
   a) **Results**=> Simple and fast. No issues.

4) Ease of reading the UHF tags as offloaded at MX Union.
   a) **Results**=> 100% read of all animals using hand held reader and stationary reader. Recommend future installation of fixed readers at receiving scales where animals are already weighed, counted and assigned holding pens.

5) Ease of reading UHF tags at USDA inspection on MX side.
   a) **Results**=> 100% reads off all animals. UHF system also caught 6.6% visual read errors from USDA inspectors trying to read current metal and button tags numbers correlated with the UHF tag. (10 visual read errors on 151 animals in the pilot)
Project Goals and Results (cont)

6) Ease of reading UHF tags in open pens MX and US side.

   a) Results=> 100% reads obtained with only two passes of animals. Minimal stress to animals and safety to operators. No head catch required. Groups of 20 animals read and recorded in less than 60 seconds per group.
MX and US official ID’s……and potential single replacement UHF
Front view of UHF (red) and current ID’s
Offloading on MX side
Staging prior to USDA inspection on MX side
USDA inspection chutes MX side
UHF fixed reader test location
USDA official from US learning the UHF system
UHF antenna at test location
Mexico producers learning about UHF
UHF data collection and management
USDA inspector (left) Data collection (right)
Active screen view of UHF data collection

Stationary Before Squeeze

Handheld At Squeeze
MX side dipping vats
Moving from MX to US
Hand scanning UHF in the pen – US side
Observations – Summary

1) Long range passive UHF tags, readers and data collection systems are a reliable and proven system both for mobile pen or fixed location identification (reading) of livestock.

2) UHF tags can replace multiple current ID’s which have developed on both sides of the border.

3) Data from the UHF tags can be used on the US side to provide currently unavailable traceability.

4) UHF Tags ease the capture and traceability of animals both on US and MX sides of the border.
Working Towards Data Transfer with States and USDA
Thank you

State of New Mexico Livestock Board, USDA and the Mexico Cattlemen's Union