

#### DTAS 2017 CONFERENCE NML: Current and future systems – observations for the haulier

Ben Bartlett, Tony Craven



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- 1. The business
- 2. Systems and processes
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- 4. Future prospects: System integration
- 5. NMR sample collection





# The business



- 1. Part of NMR Group plc
- 2. Two UKAS accredited laboratories
- 3. Payment testing for all dairy processors
- 4. 7 day a week operations
- 5. National sample collection network
- 6. Testing at night
- 7. 100,000 bulk milk tests/month and 600,000 cow sample tests/month



#### National Milk Laboratories: Four Ashes



#### NMR Van fleet- 19 vans 15 daily routes 1.85 million miles per year





# Temperature monitoring/ vehicle tracking system



Temperature Data





- Labs in Glasgow and Four Ashes
- 7 days a week operation
- Ambient and refrigerated sample collection
- Red pins NML, Blue pins
   NMR
- Temperature monitoring through SevenEye



## **NML Four Ashes**



# Milk samples heated in waterbaths prior to testing



## Testing through midInfraRed



# Sample agitation and extraction on mIR instrument



# Tecan robot assigning milk to antibiotic test plates



## Sample storage



# Warranty bags



- Designed for samples that are not destined for standard registration process
- Single use with capacity to take white plastic rack
- Bags supplied on request by NML (delivered by NML van)
- NML provides warranty submission form
- Use of warranty case number





# Q1: The NML driver will pick up samples if....



- Samples are left on the correct shelf in the fridge
- 2. Samples are in the fridge in a white plastic rack
- **3.** A message is left with the samples requesting collection

#### **Q2:** Sample identification: which one is correct?





# Q3: Day labels and overnight collections: the day label should relate to



- 1. The day on which the tanker left the depot
- 2. The day on which the tanker commenced collection of milk on farm
- The day on which the tanker completed the route and reached the depot



## Outlook





# Outlook







- For Haulier: No litres on multivats needed
- For Processor: No matching for processor
- Compatibility: Any system that uses the Gardner Denver Optiload system

# **Final comments**



- Aspiration for unique depot codes
- Visitors to NML always welcome
  - Value in understanding antibiotic testing methods
  - Meeting room available FOC (subject to availability)
- Please collect your kit from the NML stand before you go!







#### 2017 DTAS Conference Collection and Transportation of NMR Sample boxes



#### NMR – individual cow samples





#### NMR Van fleet- 19 vans 15 daily routes 1.85 million miles per year







- Red pins NML, Blue pins NMR
- Some collections daily, some weekly and some monthly
- 7.30pm transfer from Yeovil to Four Ashes



# Collection of payment samples for milk buyers

national milk laboratories



#### **Collection of NMR Samples**



# NMR Box Collection Issues- lack of space



#### **North Wales Route-9 hours**





# North Wales route- 6 additional calls 50 additional miles, 2 additional hours





## NMR and Payment Sample Transport

national milk laboratorie

- NMR understand space is limited and health and safety concerns regarding use of cab
- Perception that NMR Box collection is a free transportation service provided by hauliers.
- NMR sample collection is recognised in payment testing charges to processors
- Hauliers refusing to collect NMR samples from farm add costs to sample transportation and adds to carbon footprint
- Dual pricing to milk buyers under consideration



#### NMR sample collection solution



•Worked with Sayers Road Tankers Ltd and T P Niven Ltd

- •Tanker toolbox from Jonesco (<u>www.jonesco-</u> <u>plastics.com</u>)
- Various sizes of toolbox- example in foyer
  Cost- circa £150 + £60 for brackets +fitting (Sayers happy to liaise with Haulier site managers to identify appropriate brackets)



#### Example box





#### Example box in situ





#### **Alternative box orientation**





#### **Possible location on tanker**





#### **Possible location on tanker**





#### In Conclusion



 Milk Recording helps farmers manage their cows and produce clean high quality milk

•NMR sample box collection and transportation to a central collection point improves carbon footprint and keeps transport costs down for mutual benefit.

•Panniers are not too expensive and provide a space for safe sample transport. Can be retro fitted or included in new build specification.



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