# Antimicrobial Use In Irish Dairy Herds:

## A comparison of three recording methods
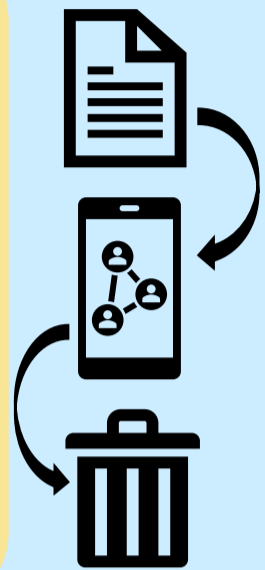
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## BACKGROUND & AIM

There are knowledge gaps in the use of antimicrobials (AMs) in Irish dairy herds

To date, farm-level antimicrobial use (AMU) data has not been collected in the Irish dairy sector. The collection of veterinary AMU data will begin in 2023

**This study aimed to quantify AMU in 33 Irish dairy herds comparing 3 different recording methods to determine the value of collecting farm-level data and provide the first overview of AMU in Irish dairy herds**
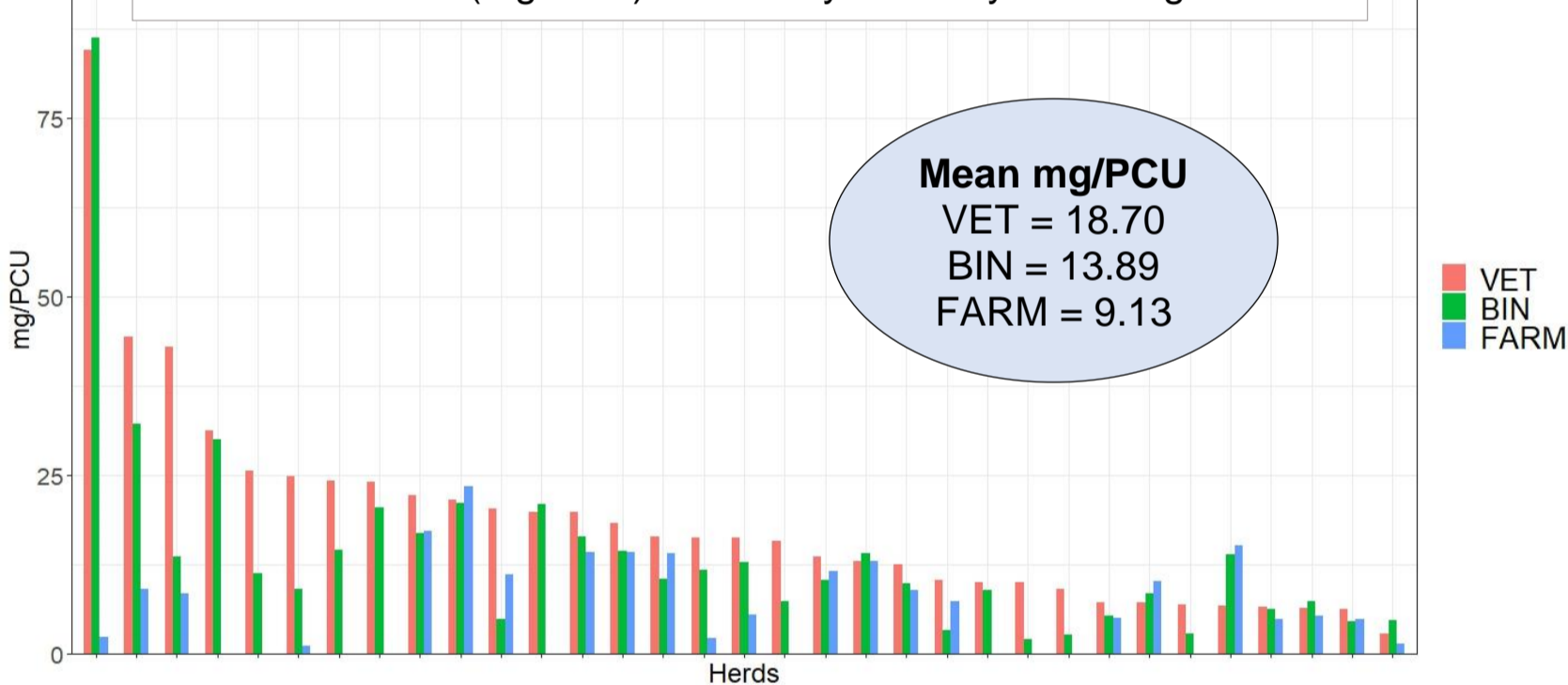
## METHODS

Thirty-three Irish dairy herds were asked to record their AMU for a 12-month period between 2021 and 2022

Three recording methods were used:
- Veterinary purchase data **(VET)**
- Herd recording software data **(FARM)**
- Inventory of empty medicines **(BIN)**



Antimicrobial use (mg/PCU) in 33 dairy herds by recording method

Mean mg/PCU
VET = 18.70
BIN = 13.89
FARM = 9.13

Legend: VET, BIN, FARM

Herd size: *100 cows (24-400)

Farmer age: *42 years (22-64)

*Median (MIN-MAX)
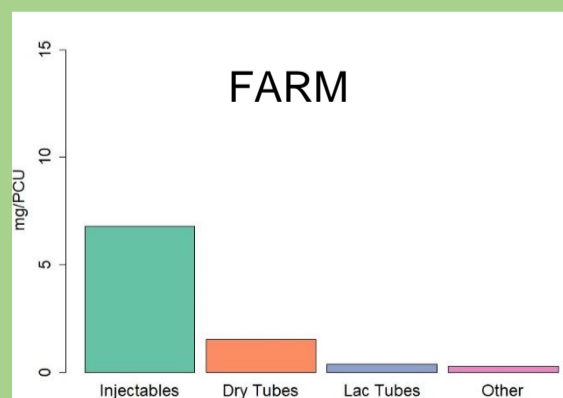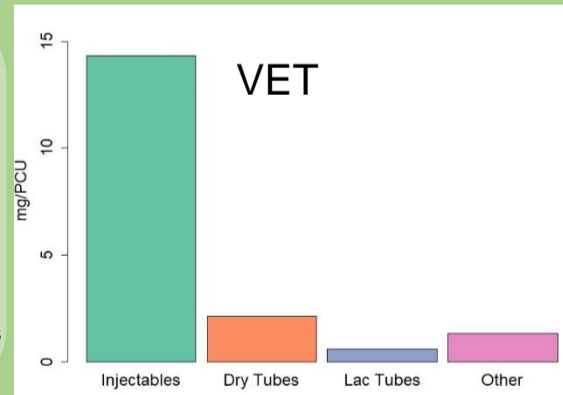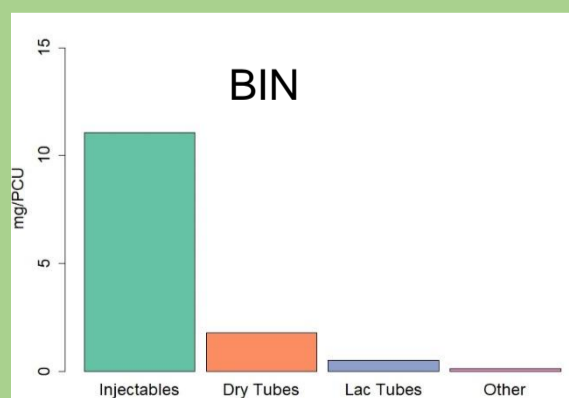


EMPTY MEDICINE WASTE BIN

## RESULTS

- ❖ AMU recording varied greatly between farms
- ❖ Ten farms did not use software to record their use
- ❖ VET data gave the highest overall usage (mg/PCU)
- ❖ Four farms made up 1/3 of the total usage (VET mg/PCU)

### Routes of administration

Systemic treatments (Injectables) were the most common form of AM used followed by intramammary preparations for dry off (Dry Tubes)

Lac Tubes = intramammary preparations for lactating cows
Other = oral + intrauterine treatments



VET



BIN



FARM

## CONCLUSIONS

- ❖ This study provided the first overview of AMU in Irish dairy herds in terms of quantities and types of AMs used
- ❖ There were differences in AMU recorded by the 3 methods used
- ❖ The vet data gave the highest estimate of use in these herds
- ❖ Collecting vet data will provide a clearer picture of AMU in the Irish dairy sector until digital data recording at farm-level improves

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