



RUMIRES

Prevalence of Zoonotic Resistant Bacteria in Small Ruminants from Centre Region of Portugal- Preliminary Results

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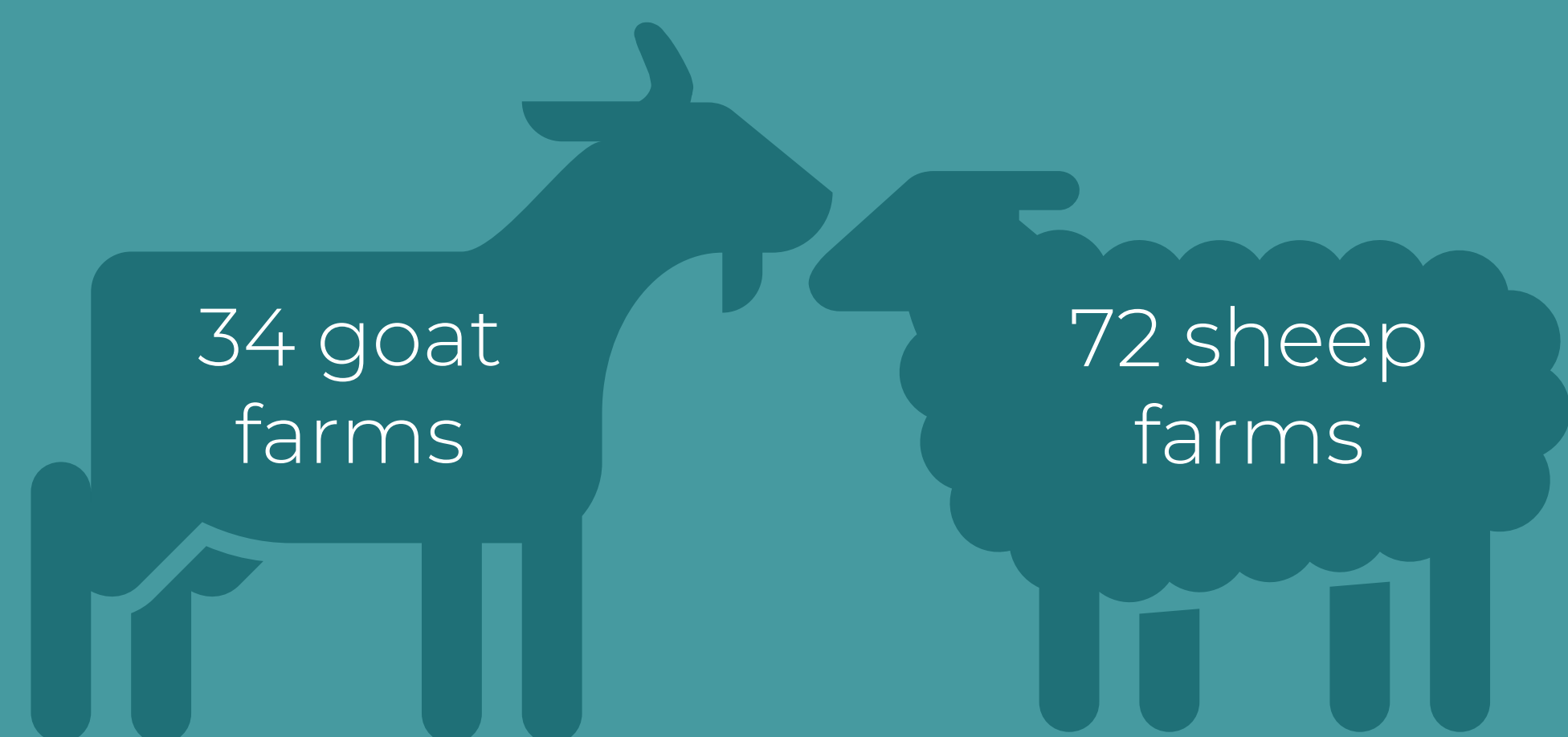
INTRODUCTION

Zoonotic resistant bacteria such as ESBL-producing *E. coli* and methicillin-resistant *Staphylococcus aureus* (MRSA) represent a serious public health concern due to their potential transmission from animals to humans.

Aims: To investigate fecal carriage of ESBL-producing *E. coli* and nasal carriage of MRSA by small ruminants from the Centre region of Portugal.

MATERIALS AND METHODS

Fecal (*per rectum*) samples and nasal swabs collected from 6 randomly selected animals of 106 small ruminants' farms.



Isolation and identification methods: EURL-AR protocols and MALDI-TOF.

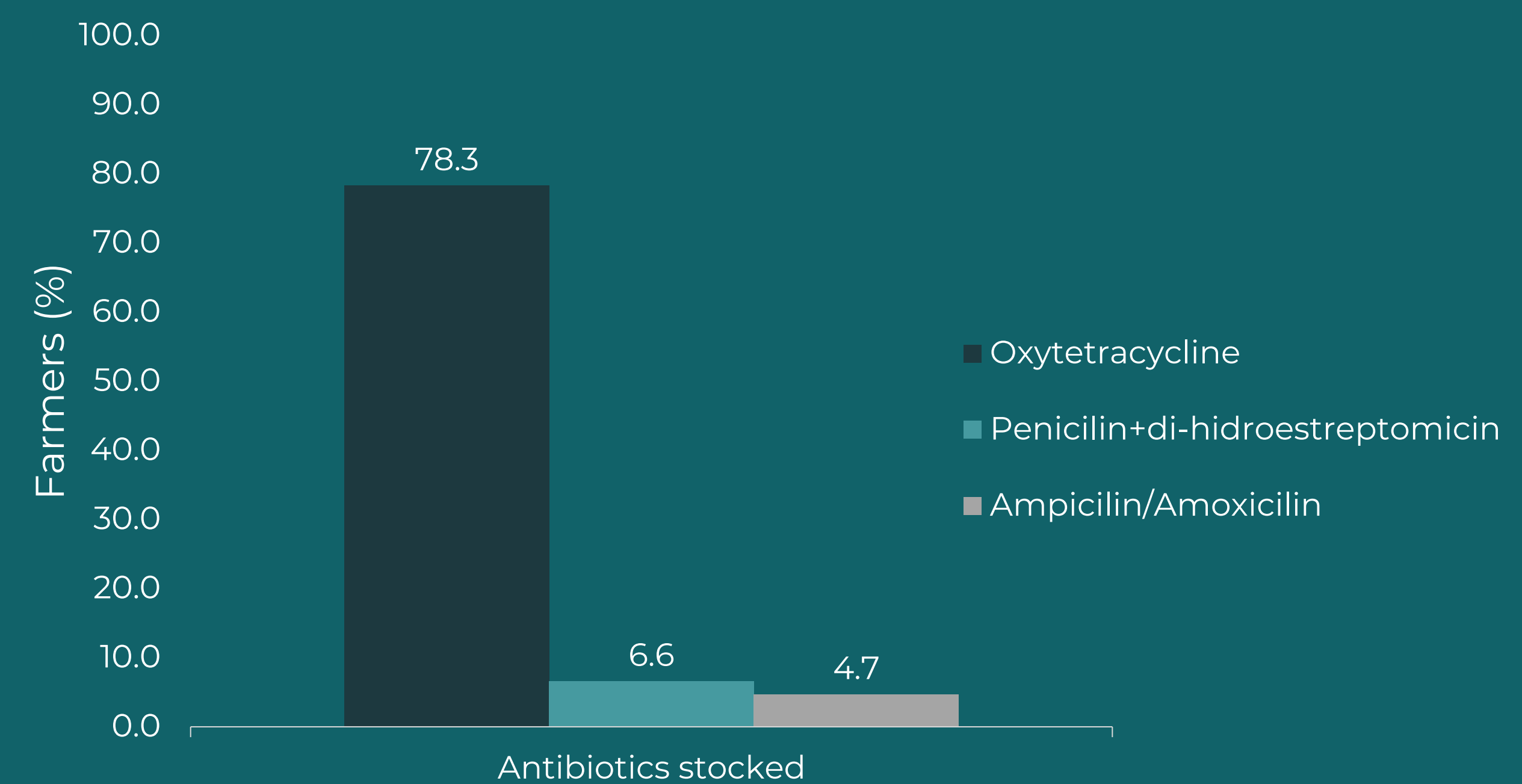
Questionnaire: Assessed farm type and system and antimicrobial use

Positivity: ≥ 1 animal testing positive *per* farm.



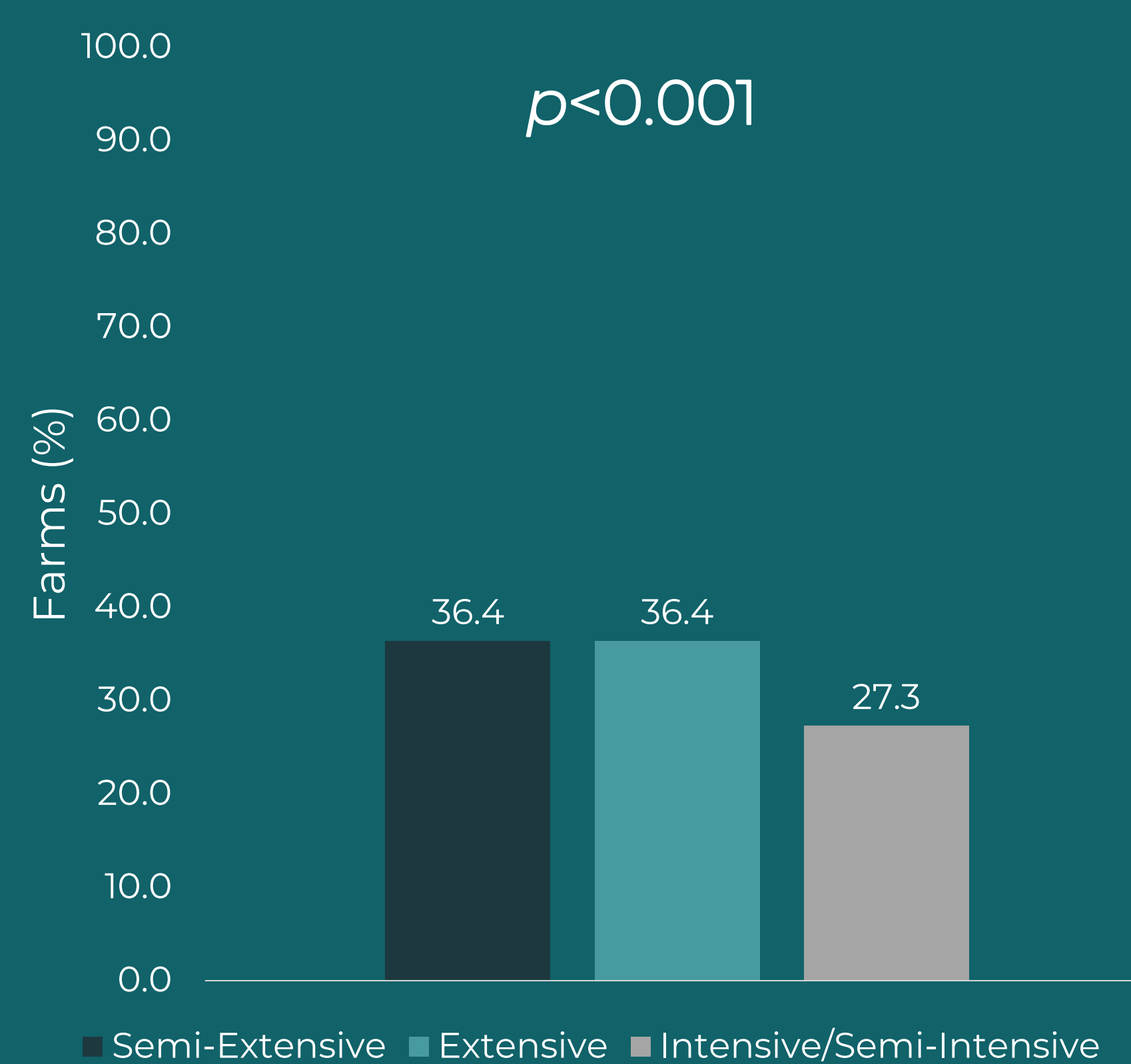
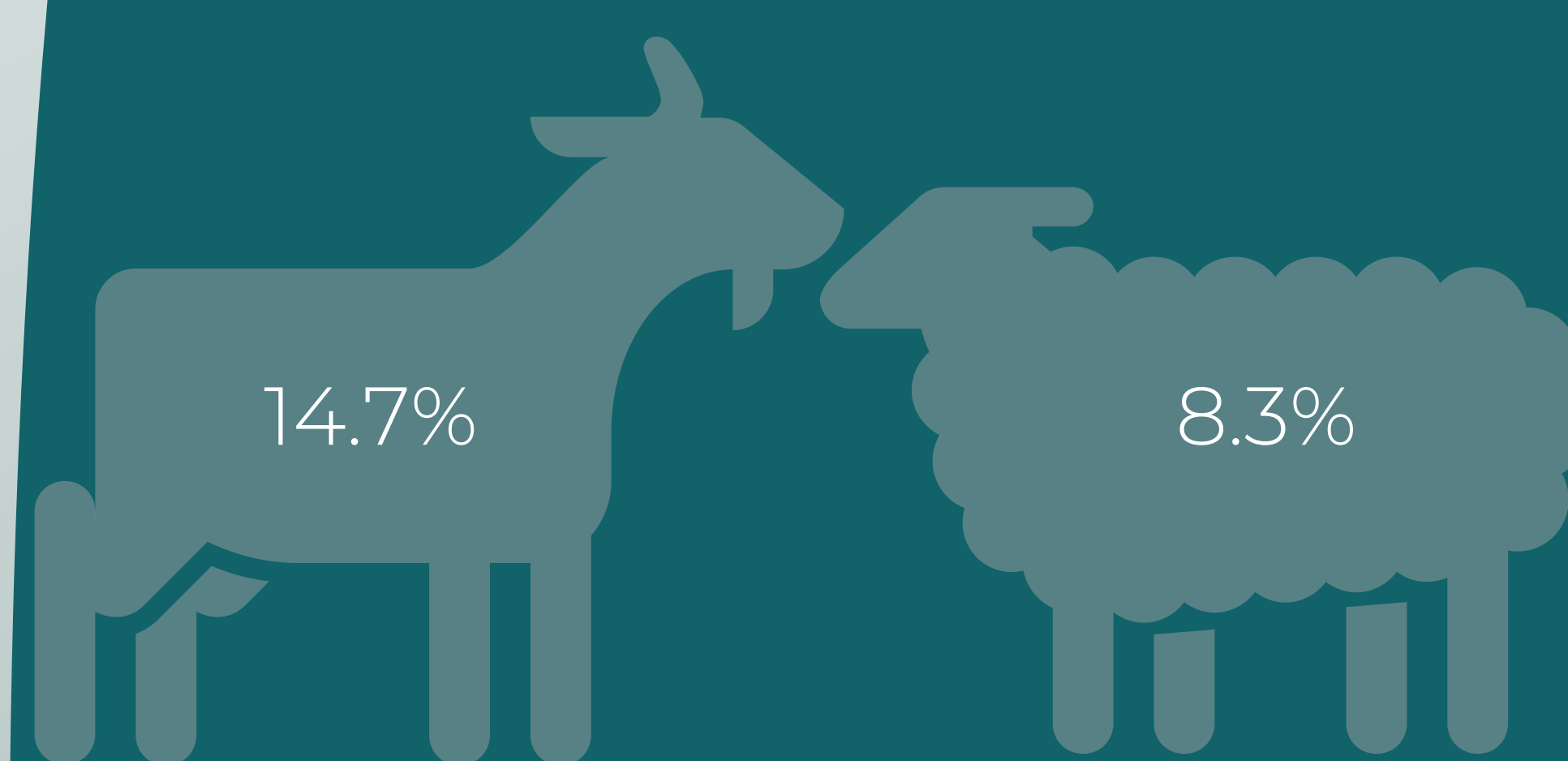
RESULTS

96.2% of farmers use antibiotics and 85.8% stock antibiotics

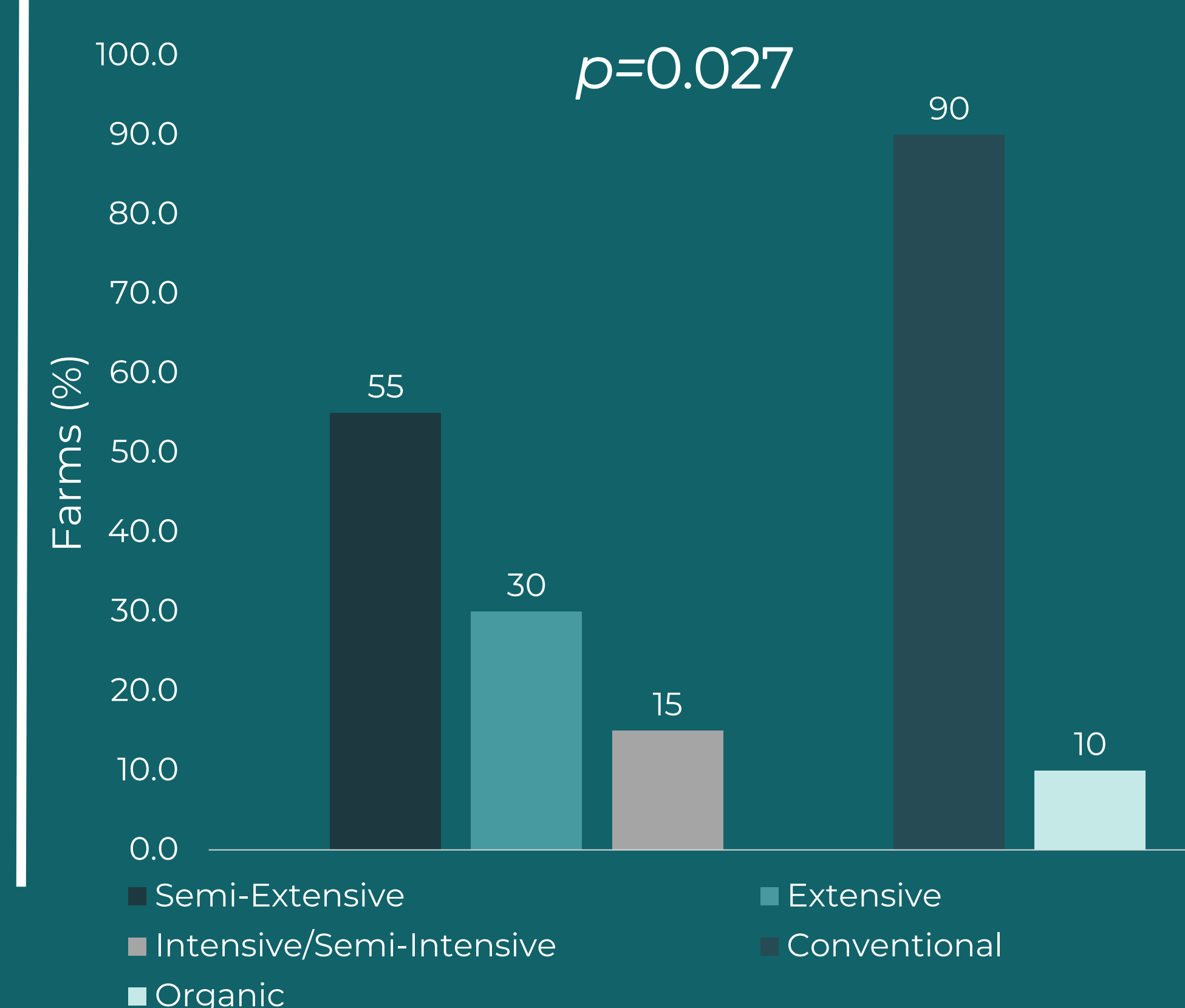
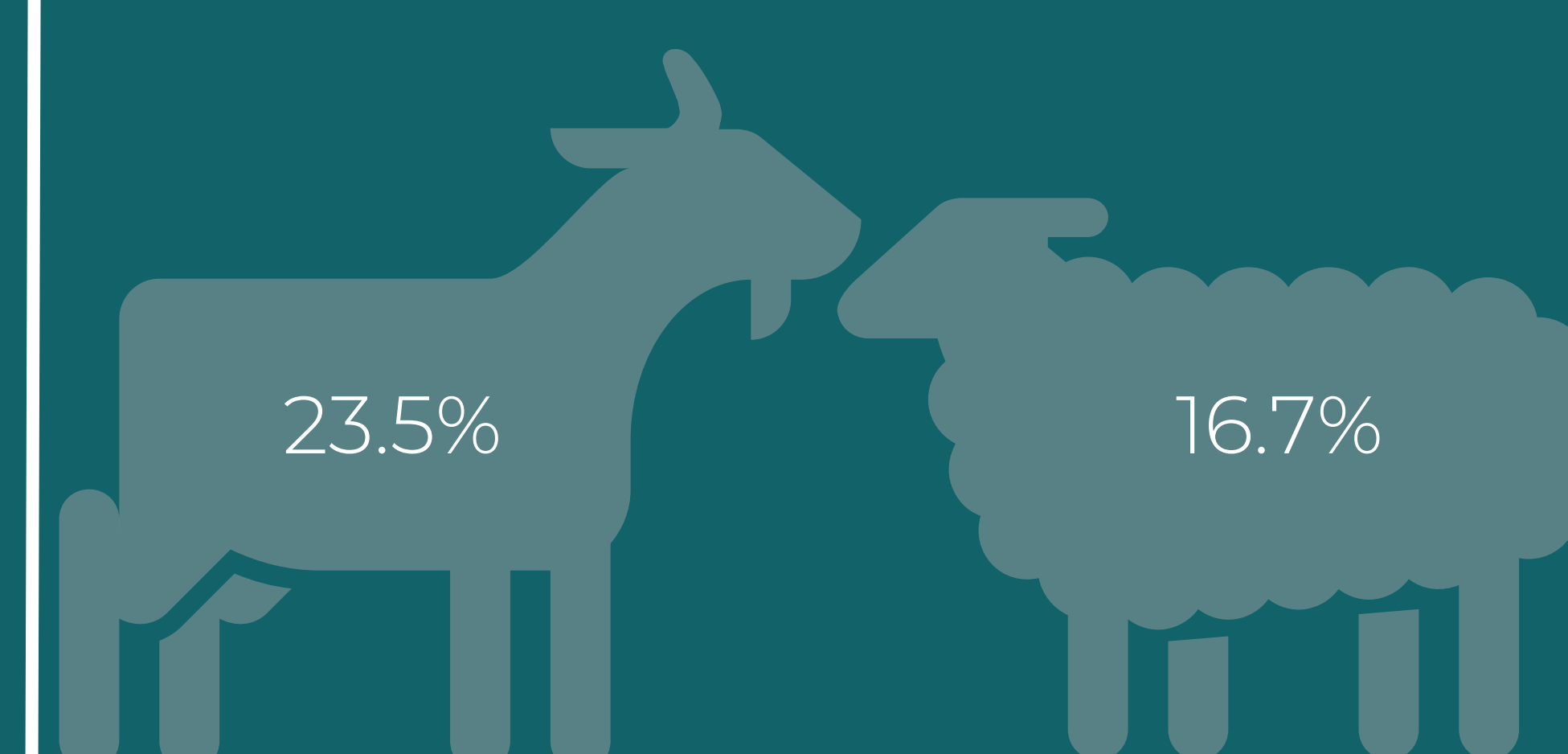


These antibiotics are mainly used to treat mastitis (39.6%), foot trot (39.6%) and diarrhea (33.0%).

MRSA prevalence



ESBL-producing *E. coli* prevalence



CONCLUSIONS

Small ruminants may serve as reservoirs for antibiotic-resistant zoonotic bacteria, posing a risk to humans via direct contact, contaminated environments, or food.

These findings underscore the need to implement strict biosecurity measures to contain the spread of bacteria and antibiotic resistance genes, as well as the need to raise awareness among small ruminant farmers about the responsible use of antibiotics.