

TYLVALOSIN IN WATER AS A COMPLEMENTARY TREATMENT FOR NURSERY PIGS EXPOSED TO PRRS VIRUS

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IDEA

Porcine Reproductive and Respiratory Syndrome (PRRS) virus outbreaks in sow units can result in a substantial increase in nursery mortality rates when recently weaned piglets are not treated promptly and adequately. The objective of this project was to quantify the prophylactic and therapeutic benefits of administering Tylvalosin (Aivlosin®) in the drinking water of weaned nursery piglets naturally challenged by PRRS virus.

WHAT WE LEARNED

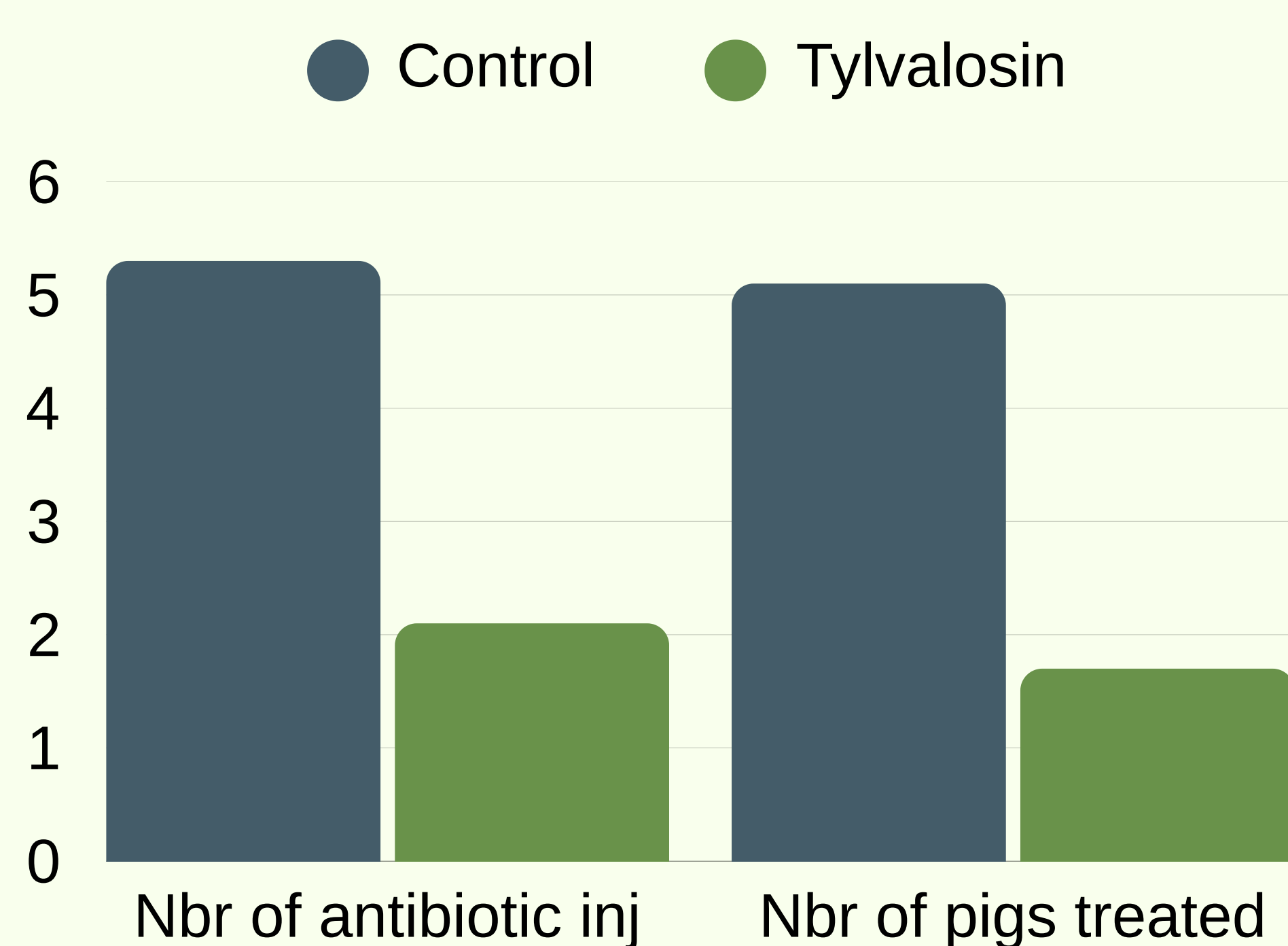
MAIN OBSERVATIONS

Laboratory results showed that PRRS virus circulated as expected

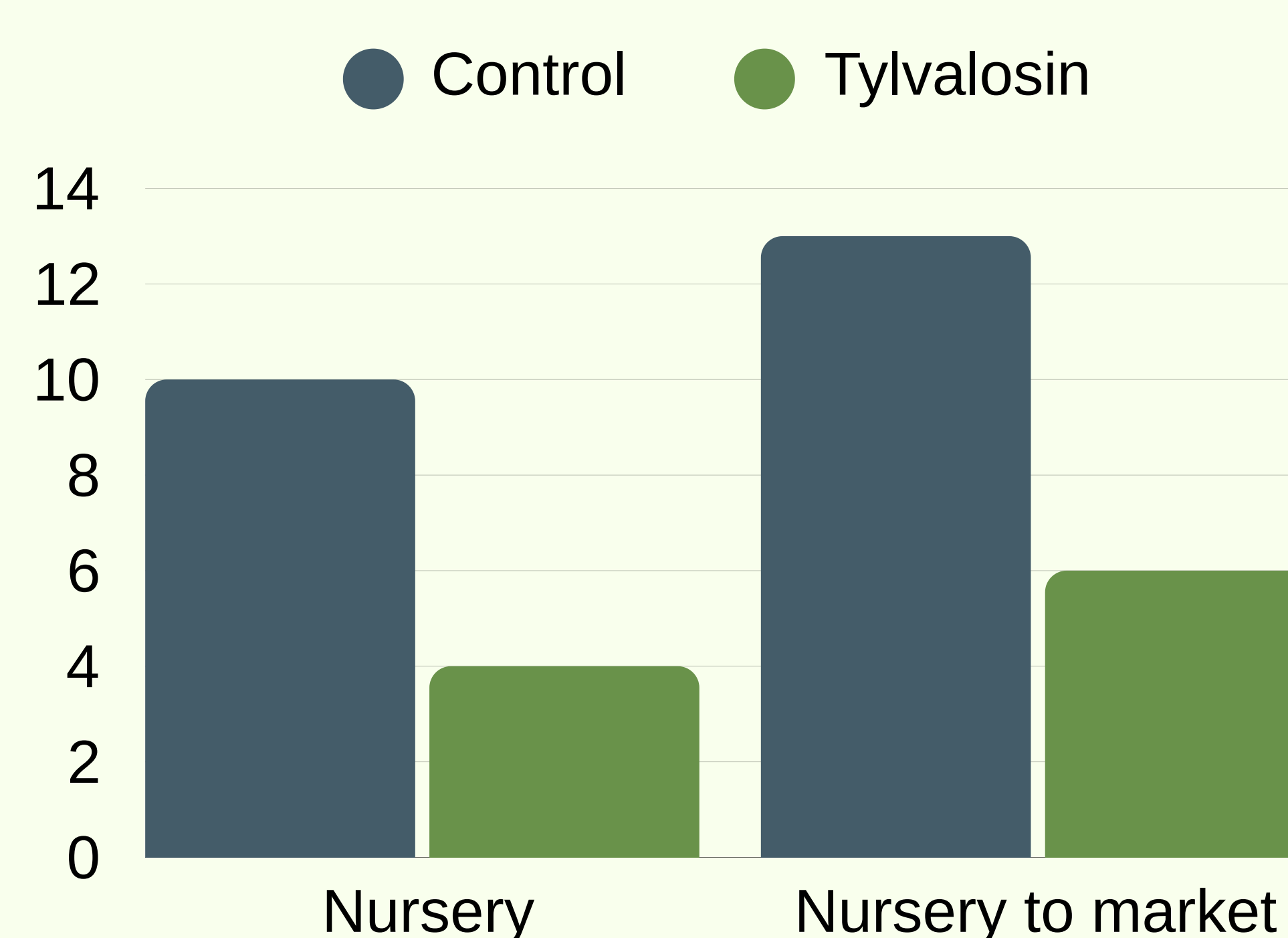
Variables	Tylvalosin	Control	P ¹
Piglet mortality during the nursery phase (% arrivals)	4%	10%	*
Pig mortality from nursery to market (% of arrivals)	6%	13%	*
Number of treatment initiation (n/pen)	2.1	5.3	**
Pigs that received at least one antibiotic injection (n/pen)	1.7	5.1	**
Nursery feed conversion ratio	1.50	1.55	ns
Nursery average daily gain (g)	356	344	ns

¹p value; * ≤ 0.05; ** ≤ 0.01; ns= not significant

PIGS TREATMENT (n/pen)



PIGS MORTALITY (%)



METHODOLOGY

EXPERIMENTAL DESIGN

- 300 animals; 150 Tylvalosin + 150 control
- 10 pens of 15 pigs per treatment
- D0: Weaned piglets (\bar{x} : 19 days old and 6,4 kg)

TREATMENTS

All pigs received feed treatment:

- Chlortetracycline @660 PPM for 21 days (D7 to D28)

Half of the pigs received two water treatments:

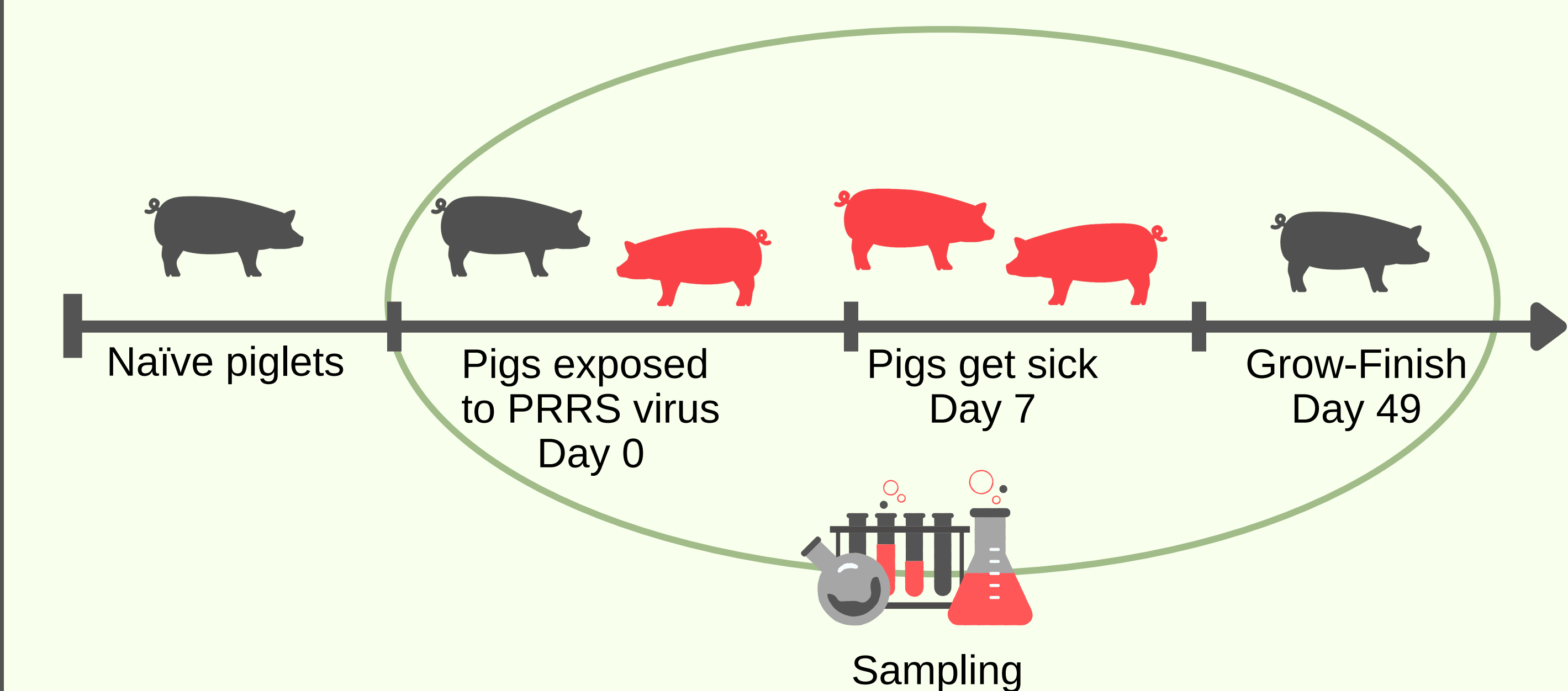
- Tylvalosin @50 PPM starting D14 & D28 for 5 days

Individual injectable antibiotic treatment as needed

MONITORING

- PRRS virus circulation evaluation at day 14
- Piglet weighing at day D0, D14, D28 and D49
- Daily feed and water consumption
- Individual injectable antibiotic treatment
- Mortality

NATURAL PRRS VIRUS INFECTION MODEL



TAKE-HOME MESSAGE

- Under conditions of natural PRRS virus infection, the addition of a complementary Tylvalosin (Aivlosin®) treatment in the drinking water significantly reduced overall nursery mortality compared to untreated controls receiving only in feed Chlortetracycline treatment.
- Complementary Tylvalosin (Aivlosin®) treatment also led to a significant decrease in the number of piglets requiring additional individual antibiotic treatments, suggesting a reduction in the severity or incidence of secondary bacterial infections commonly associated with PRRS virus infections.
- No significant effects were observed on average daily gain and feed conversion ratio (D0-D49).