

## Inhibitory effect of HiZox® on *C. perfringens*

### Place

Institute of Animal Nutrition, Faculty of Veterinary Medicine, Free University of Berlin (Germany).

### Objective

To compare the effects of HiZox and regular zinc oxide on the growth kinetics of *Clostridium perfringens*.

### Material and method

Microtiter plates with Zn concentrations from 0 to 128 µl/ml medium

**Medium:** LAB078 medium saturated with ZnO or HiZox®, centrifuged and autoclaved

**Bacteria:** *Clostridium perfringens* strain DSM756 (beta-toxin producing strain)

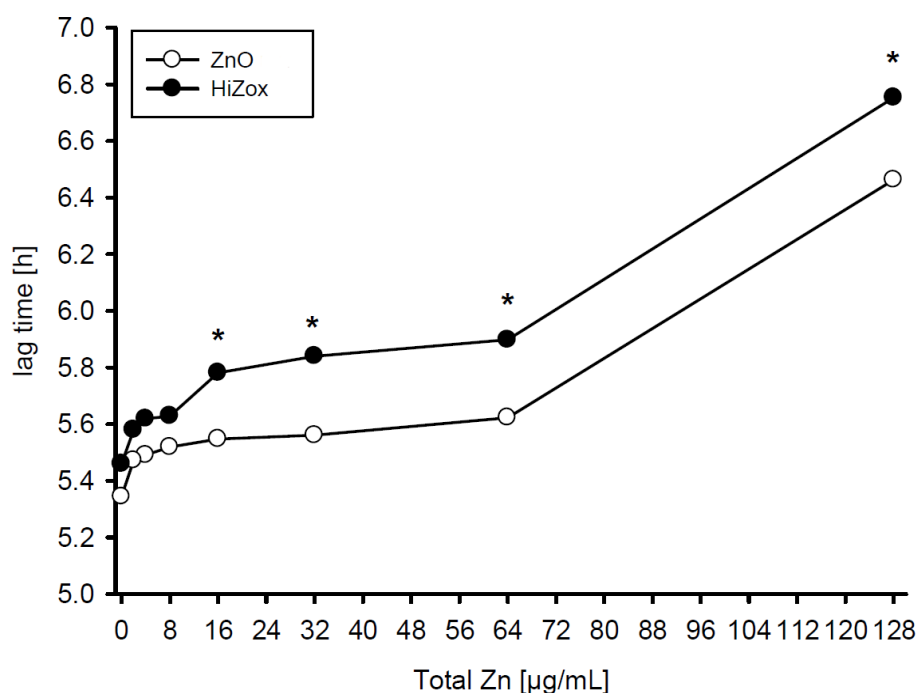
**Products:** standard feed grade zinc oxide vs. HiZox®

**Measurements:** every 5 minutes in a period of 24 hours, data transformed in growth curves

**Statistical analysis:** Student's test

### Results

Lag time (i.e. time before cells started to grow exponentially) was significantly higher for HiZox® than for the standard feed-grade zinc oxide.



\* p < 0.05

### Conclusion

HiZox® shows better results than standard ZnO for the inhibition of the growth of *Clostridium perfringens*.