



Comparative palatability testing of HydroTrim® and a sulfamethoxazole/trimethoprim containing product in drinking water

Trial description

Objective

- ▶ In addition to solubility and stability, palatability also largely determines the efficacy of a veterinary product for use in drinking water. Good acceptance of medicated water is crucial for correct dosing. Moreover, diseased animals need to keep drinking for complete and fast recovery.
- ▶ A field trial was carried out to investigate the impact of two types of sulfonamide/trimethoprim-based products on water intake.

Product	Formulation	Concentration of the active compounds	
		Sulfonamides	Trimethoprim
HydroTrim®	Powder	500 mg sulfadiazine/g	100 mg/g
Sulfamethoxazole/Trimethoprim	Liquid	100 mg sulfamethoxazole/ml	20 mg/ml

Set-up

- ▶ Nursery pigs (average bodyweight of 16.5 kg) in excellent health and reared under the same conditions and in the same compartments were evenly divided into two mixed sex groups:
 - HydroTrim®: 490 pigs
 - Sulfamethoxazole/Trimethoprim: 484 pigs
- ▶ Products were administered at the registered dose for 5 consecutive days:

Product	Daily dose/kg bodyweight	
HydroTrim®	25 mg sulfadiazine	5 mg trimethoprim (TMP)
Sulfamethoxazole/Trimethoprim	25 mg sulfamethoxazole (SMX)	

- ▶ Medicated water was administered via a highly concentrated stock solution using a proportioner set at 1% (dilution 1:100) and stirred immediately after mixing, with:
 - equal concentrations of the sulfonamide and trimethoprim
 - equal volumes at the start of administration

Measured parameters

- ▶ Cumulative water intake was measured digitally at seven timepoints on the first day of treatment.
- ▶ Daily water intake was measured digitally from 2 days before to 2 days after the treatment period.
- ▶ A comparison of mean water intake was made between both treatment groups.

Results

► Cumulative water intake per pig on the first day of treatment

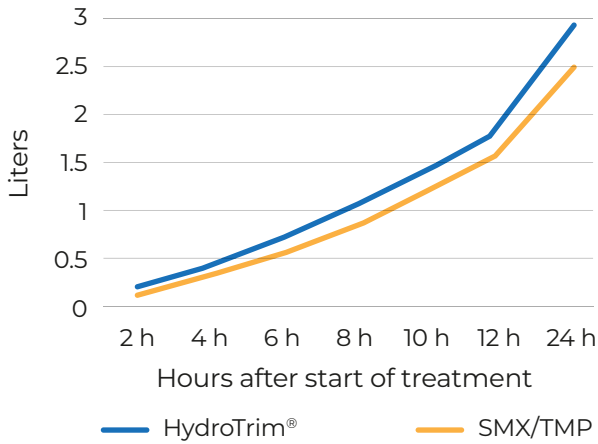


Figure 1. Cumulative water intake at seven different timepoints on day 1 of treatment

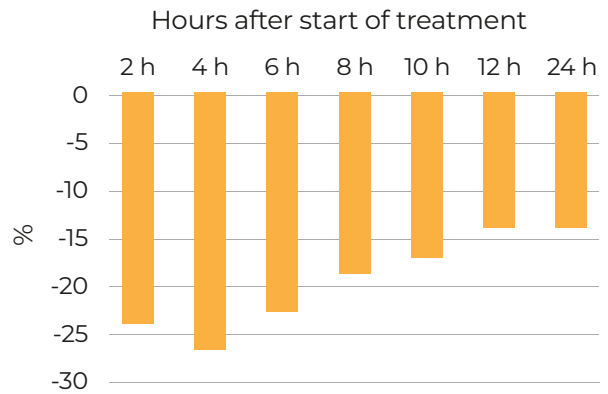


Figure 2. Water intake in the SMX/TMP group compared to the HydroTrim® group at seven different timepoints on day 1 of treatment, expressed as a percentage

► Daily water intake per pig from 2 days before to 2 days after the treatment period

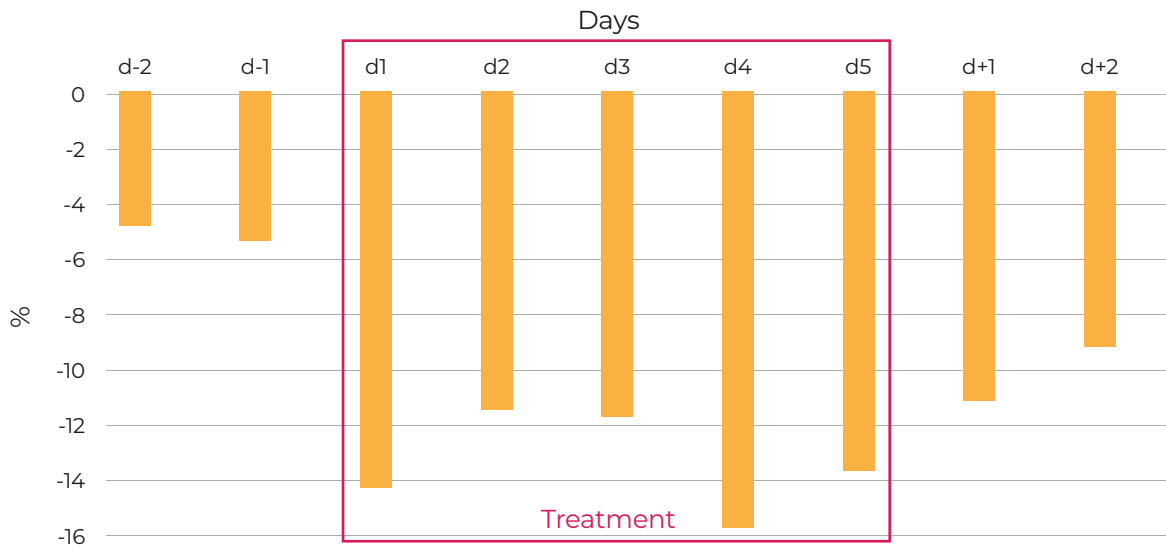


Figure 3. Daily water intake in the SMX/TMP group compared to the HydroTrim® group from 2 days before to 2 days after the treatment period, expressed as a percentage

Conclusion

Sulfamethoxazole-based water-soluble products provoke an immediate and continuous decrease in water intake throughout the treatment period in pigs, unlike HydroTrim® (sulfadiazine-trimethoprim).