

DOSTO® Powder in Doe and Fattening Rabbits Diets

Field trial, Netherlands, 2020

Digestive troubles are responsible for welfare impairment in the growing rabbit and clearly prevailed over all other health problems. The young rabbit is particularly susceptible to gastroenteric disorders, and more particularly around the period of weaning.

All farms faced issues with intestinal health related problems, mainly *E. Coli* and *Clostridium*. There are not many additives registered for rabbits and registrations for e.g. coccidiostats are expiring.

The farm of the present results is one of the best performing rabbit farmers in the Netherlands. This farmer is constantly looking for alternatives to control digestive disorders and to keep high slaughter weights and mortality low.

Outline Farm

The farm consists out of around 900-1000 Hycole does. These does are housed individually in one department of the stable. In the other department, the weaned rabbits are housed, around 7500-8000 rabbits each cycle. This fattener department consists out of 'park' pens, in which 36 rabbits are housed. Each cycle lasts for 10 weeks (70 days) in total.

The rabbits are weaned on day 35 and moved to the fattening department, on day 70 they are delivered for slaughter. The fattener department is cleaned and empty for 1 week after delivering the rabbits.

DOSTO FARM®



There are 3 different types of feed in this farm (Fig. 1):

- Doe feed: fed to the does during 4 weeks after farrowing
- Weaner feed: fed to the does in the last week before weaning (week 4 to 5).and in the fattener department until the last week before slaughter.
- Fattener feed: fed to the rabbits in the last week before slaughtering, many additives are removed because of the waiting period.

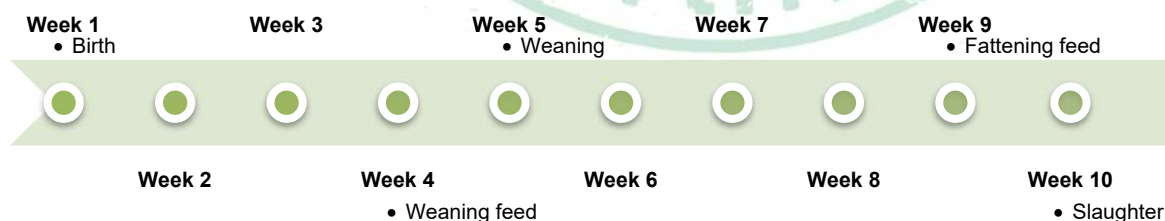


Figure 1: Types of feed from birth to slaughter

Experimental setup

The goal of this trial was to evaluate whether DOSTO® Powder (7.5% oregano oil) can be used to support or even replace coccidiostats, as there is a need to use other products once in a while to avoid formation of resistance (only two coccidiostats are registered for use in rabbits in The Netherlands).

With this purpose two consecutive test were carried out, feeding 0.2 kg DOSTO® Powder/ton in doe medicated feeds and 0.5 kg DOSTO® Powder/ton in weaner and fattening feeds, but leaving the coccidiostats out of the weaning feed (Table 1). The fattener diet never includes coccidiostats. The average values of the 8 previous rounds were used as control reference.



DOSTO® Powder (kg/ton)	Positive Control	Lot 1 (May 2020)	Lot 2 (July 2020)
Doe feed	Medicated feed	Medicated feed + 0.2	Medicated feed + 0.2
Weaning feed	Medicated feed	0.5	0.5
Fattening feed	Not medicated feed	0.5	0.5

Table 1: Dosage overview

Results and discussion

The control group fed with coccidiostats and the two consecutive groups fed with DOSTO® Powder reach similar average slaughter weigh of 2.72 kg, FCR (3.1 to 3.51) and age at slaughter (69 days).

Adding DOSTO® Powder in the doe feed in combination with coccidiostats reduced the mortality before weaning (Figure 1). This could be explained with the results of a previous trial in the pig sector. In this study, it was confirmed that feeding DOSTO® Oregano essential oil (the active ingredient of DOSTO® Powder) to sows

short before farrowing and in the lactation feed improved the milk quality and it was excreted in the milk, protecting the new born from the birth on (Augé, 2013).

The Dutch rabbit farm of the present field trial has implemented several measurements to reduce digestive problems. This leads to a very low mortality (2-3% after weaning vs. 8-10% on average in Netherland) and high slaughter weights. In this test the group with coccidiostats and the groups with DOSTO® Powder showed similar mortality values (Fig 2).

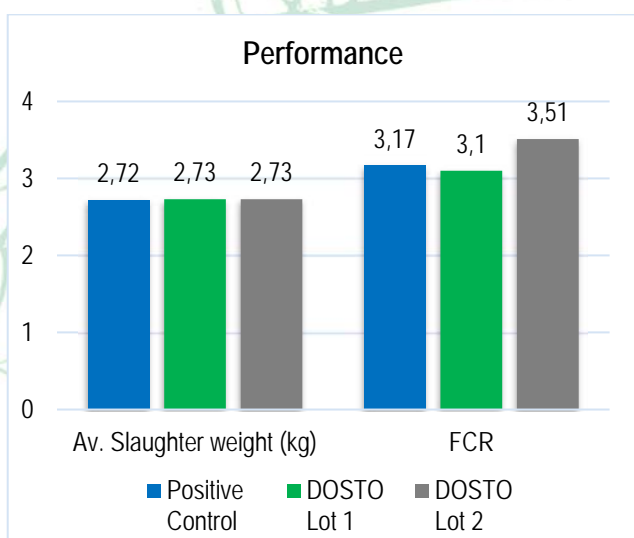


Figure 2: Performance results

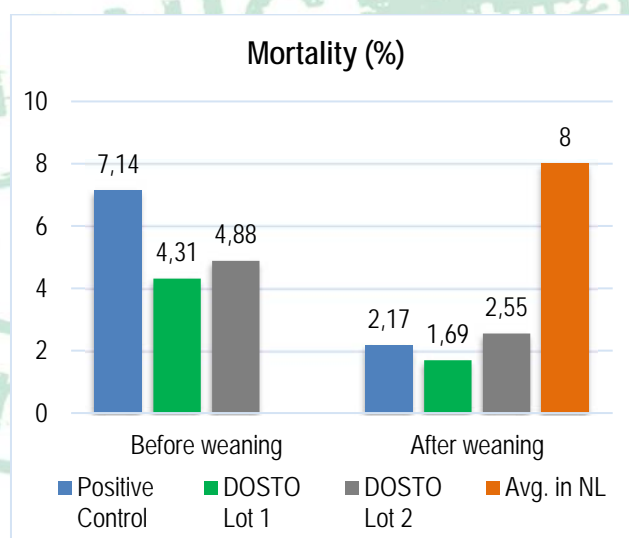


Figure 2: Mortality before and after weaning

Conclusions

In this field trial, comparable performance was reached with the coccidiostats and with DOSTO® Oregano in two consecutive lots.

Due to the high performance level and sanitary management of this farm, DOSTO® Powder (500 g/t) reduced the need of coccidiostats in the diet of rabbits in summer and in some cases also the need of group

medication. The recommend use rate in farms with higher infection pressure is 1000g DOSTO® Powder per ton of complete feed.

Together with the anticoccidial properties, the essential oil of oregano has proven antibacterial properties against *E. coli* and clostridia, the main pathogens responsible of enterocolitis in rabbits.

Summarized by Dostofarm, 2021

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