



## **Efficacy of formulated carvacrol on *Campylobacter jejuni* in challenge test in vivo and impact on the whole caecal microbiota**

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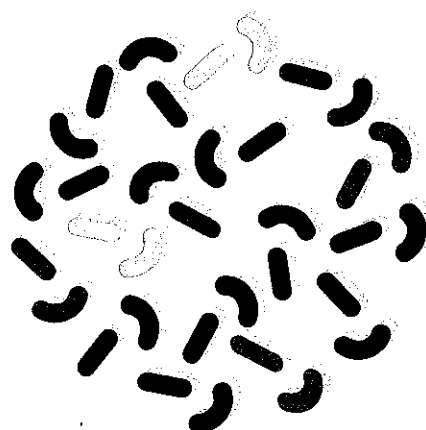
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# Les **microbiotes**

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## Résumés des posters

POSTER #23

### Efficacy of formulated carvacrol on *Campylobacter jejuni* in challenge test in vivo and impact on the whole caecal microbiota

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*Campylobacter* is well known as the leading cause of foodborne diarrheal disease worldwide, with *Campylobacter jejuni* and *Campylobacter coli* representing the most frequently involved species. The main source of infection is the meat from poultry origin mostly contaminated during evisceration. Thus, reducing *Campylobacter* concentrations in the intestinal tract and particularly in the caeca may help decreasing flesh colonization, and in this way reducing human infections by the bacteria.

Some natural substances have interesting antimicrobial properties. Studies have reported the antibacterial effect of an essential oil compound, carvacrol, against *Campylobacter*.

Oral administration of carvacrol could be a promising method to reduce *Campylobacter* in digestive tract but this compound is often early absorbed and so it does not get to the site of *Campylobacter* growth. A new galenic formulation (Phodé Sciences, France) has been created to resolve this issue. This product contains a liquid formulated core based on carvacrol, and a specific solid carrier.

In the present study we evaluated the efficacy of this formulation (added to the feed at 2.5 kg.T-1) in decreasing the *C. jejuni* caecal load in broiler chickens artificially inoculated (108 CFU/chicken). Under these conditions, the formulation reduced significantly (P

POSTER #10

### Sex-dependent impact of Roundup on the rat gut microbiome

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A growing body of research suggests that dysbiosis of the gut microbiota induced by environmental pollutants, such as pesticides, could have a role in the development of metabolic disorders. We have examined the long-term effects of 3 doses of the Roundup(R) herbicide (made of glyphosate and formulators) on the gut microbiota in male and female Sprague-Dawley rats. A total of 141 bacteria