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Kassel "Filling gaps and removing  
traps for sustainable resource  
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# Potential of Essential Oils in Filling Gaps and Removing Traps for Sustainable Poultry Production

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## Key term:

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- ❖ Essential oils are promising alternatives to antibiotics in the poultry industry
- ❖ They are Aromatic, volatile and oily liquids

## Introduction:

- ❖ Essential oils (EO) elicit antimicrobial, anti-oxidative, anti-inflammatory and coccidiostatic properties
- ❖ They can impact growth performance, nutrient bioavailability, gut health and gastrointestinal tract responses
- ❖ They are required in small amounts

## Materials and method

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*Ocimum gratissimum* (lyn) essential oil was extracted from the fresh leafs by hydro – steam distillation method

## In – vitro antibacterial activity

- ❖ The essential oil was standardized to 80 %, 40 % and 20 %
- ❖ Disc diffusion method was used to determine the zone of inhibition (ZOI — mm) of *O. gratissimum* essential oil against 3 bacteria;

1. *Salmonella enteritidis*
2. *Salmonella typhimurium*
3. *Clostridium perfringens*

## Conclusion:

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- ❖ The essential oil elicited antibiotic effect against *Salmonella enteritidis*, *Salmonella typhimurium* and *Clostridia perfringens*
- ❖ *Ocimum gratissimum* (lyn) essential oil has potential in filling gaps and removing raps as suitable alternative to antibiotics use in sustainable poultry production

## Results

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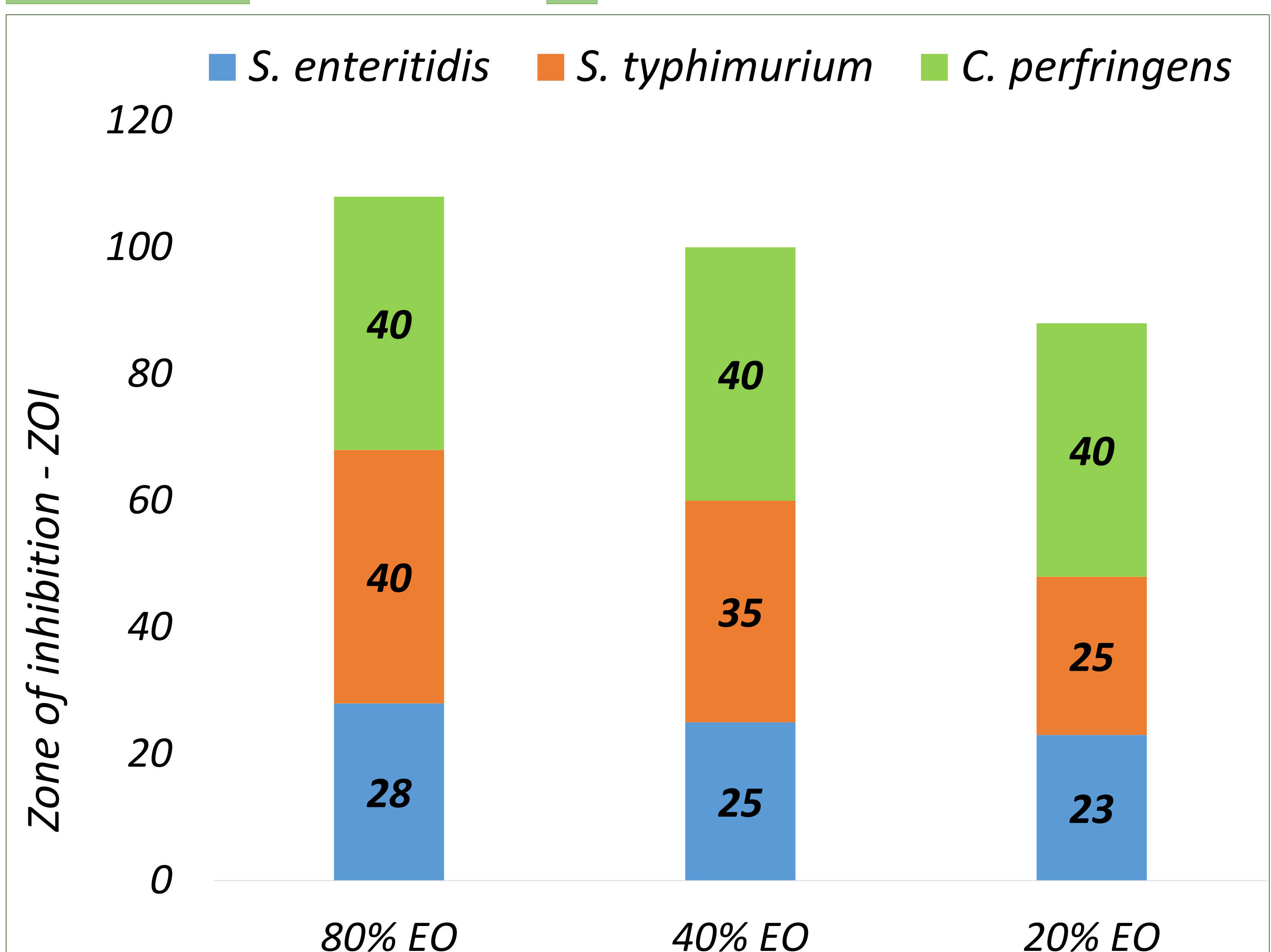


Fig 1: Antibacterial activity of *O. gratissimum*



Essential oil



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