



# The effect of the addition of cricket flour on the quality of bakery products

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## WHY TO EAT INSECTS?

- There will be 9 billion people in the world by 2050 → we need more sources of animal protein
- Insects
  - + are more sustainable than conventional breeding
  - + need less feed, water and space
  - + have good nutritional value
  - a possible dislike of eating insects → hidden form in food (e.g. in bakery products)

## WHAT IS THE QUESTION?

Do have an addition of cricket flour some effect on the rheological and sensory properties of bakery products?

## HOW WE DID IT?

- Two types of the cricket flour processing
  - **Conventional drying (TCM)**
  - **Spray drying (SCM)**
- Three different additions of cricket flour
  - **5%**
  - **8%**
  - **10%**
  - **+ control (0%)**
- Measuring
  - Farinograph
  - Sensory analysis
    - profiling method

## WHAT WE HAVE FOUND OUT?

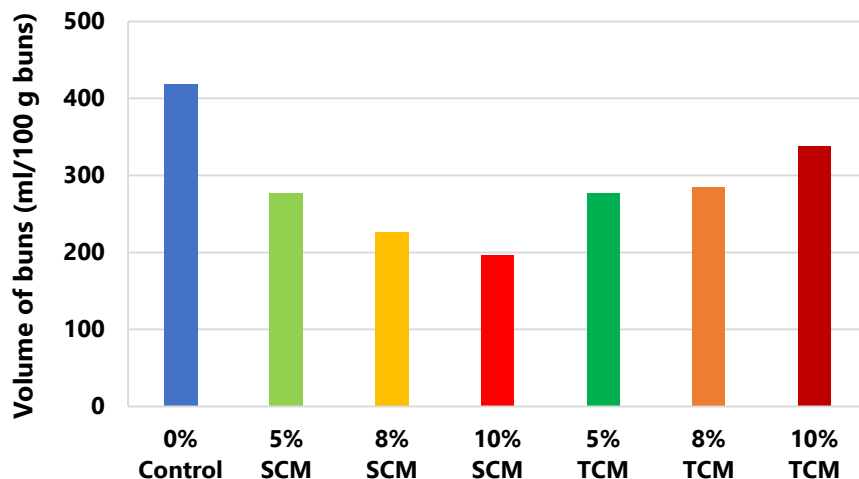
- The addition of cricket flour into dough affected
  - ↓ Height of buns (Corr. coeff. = - 0.9288)
  - ↓ Dough stability (Corr. coeff. = - 0.8902)
  - ↓ Volume of buns (Corr. coeff. = - 0.9066)
  - ↑ Dough consistency decrease (Corr. coeff. = 0.8547)
  - ↑ Intensity of brown colour (Corr. coeff. = 0.7383)
  - ↑ Intensity of taste (Corr. coeff. = 0.3469)
- The buns with 8% and 10% addition have nutty, earthy and bean-like flavours



## WHAT IS THE ANSWER?

The addition of the cricket flour affected the rheological and sensory properties of bakery products.

### The effect of cricket flour addition on the volume of buns



0% Control



8% SCM



8% TCM

### Sensory evaluation - PCA plot of cases

