

Loïc Detilleux¹, Antonin Le Luc², Ludovic Andres², Thomas Dogot¹, Frédéric Francis³, Rudy Caparros Megido³

1: Economics and Rural Development, Gembloux Agro-Bio Tech - University of Liège, Gembloux, Belgium

2: Research unit Agro-Development and Innovation in South (UR ADISuds), College of International Agro-Development (ISTOM), Angers, France

3: Functional and Evolutionary Entomology, Gembloux Agro-Bio Tech - University of Liège, Gembloux, Belgium

Contact : Loic.Detilleux@uliege.be

Introduction

Introducing edible insects into the European diets remains a challenge as there are many barriers (e.g., food neophobia and disgust). Literature suggests many strategies to improve consumer acceptance but such strategies are mainly based on the insect-based food or the consumer. However, other factors are involved and need attention as contextual factors. Defining the most appropriate context for insect consumption could be achieved by answering several questions as: “When?”, “Where?”, “With whom?”, etc.

Objectives

- ❑ Record trends about:
 - Timing of insect consumption.
 - Style of insect preparation.
- ❑ Challenge questionnaire for further studies.

Results

- ❑ Only one respondent had never heard about edible insects.
- ❑ 65.47% of respondents had already experienced insect eating.
- ❑ 95.82% of insect eaters consumed them yearly or less frequently.
- ❑ Insect consumption was often experimented during special events (e.g., conference with insect tasting; Figure 1).

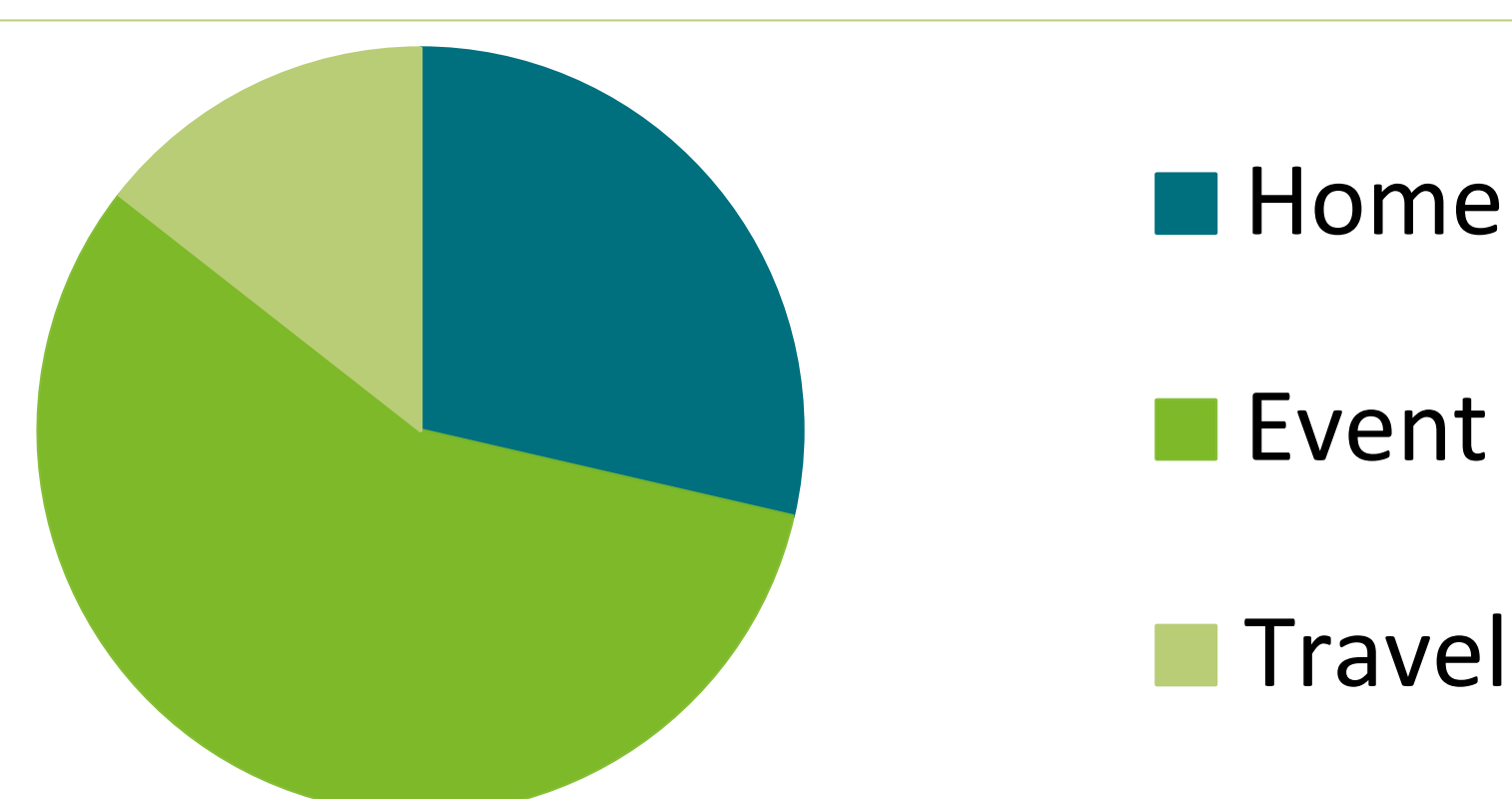


Figure 1. Answers of insect eaters to “Where have you already eaten insects?”.

- ❑ Entomophagy would be more appropriate for other timings than during breakfast ($H_{3,475} = 382.2, p < 0.001$; Figure 2).
- ❑ More appropriate to propose edible insects as snack than as trimming or main dish ($H_{2,475} = 286.62, p < 0.001$; Figure 3).

Conclusion

The context of insect consumption should not be overlooked in studies relative to entomophagy. Defining the most appropriate context for insect consumption is a milestone in the insect-based food development. This survey recorded the first results on this topic but large scale studies are required to confirm these trends and to develop effective strategies to promote entomophagy.

Methodology

- ❑ Online survey.
- ❑ Evaluation of appropriateness with a 5-point scale ranging from “not at all appropriate” to “very appropriate”.
- ❑ 475 respondents from Gembloux Agro-Bio Tech – University of Liège (Gembloux, Belgium).
- ❑ Sociodemographic profile:
 - Mean age: 27.62 ± 11.45 years old.
 - Gender: 56.21% of ♀.
 - Nationality: 82.74% of Belgian people.
 - Study level: 93.89% at university level.

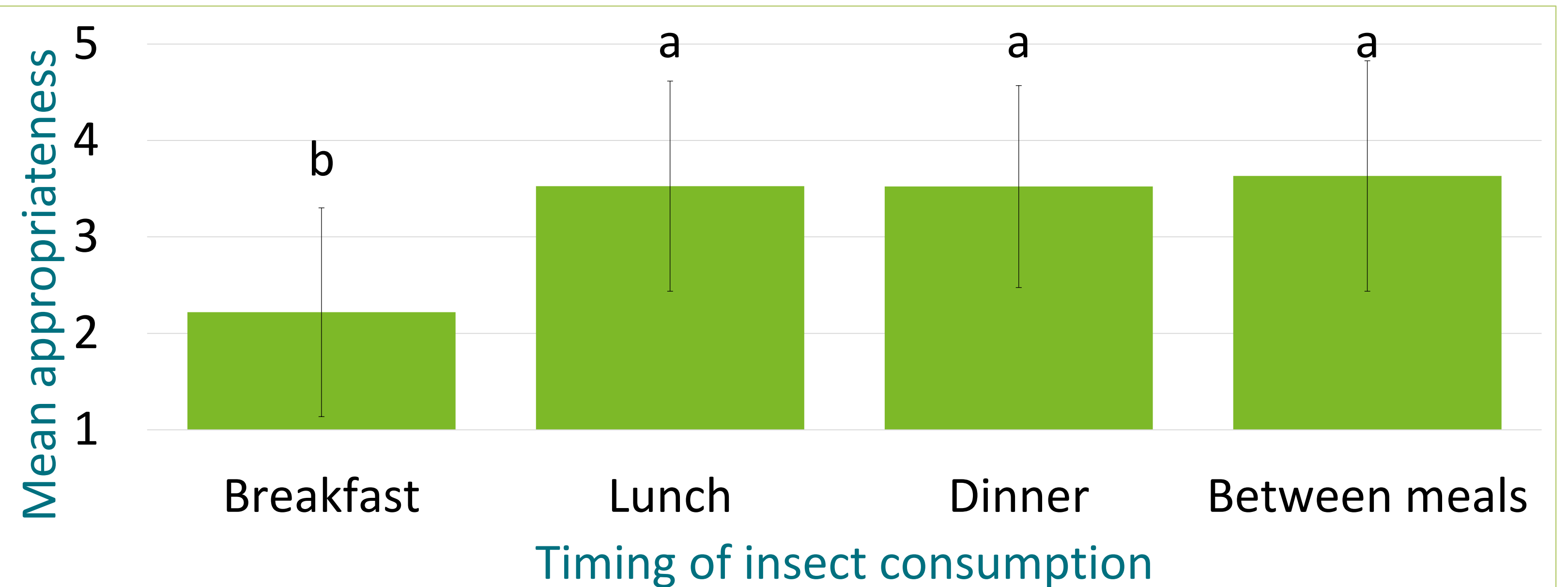


Figure 2. Mean appropriateness for 4 timings of insect consumption.

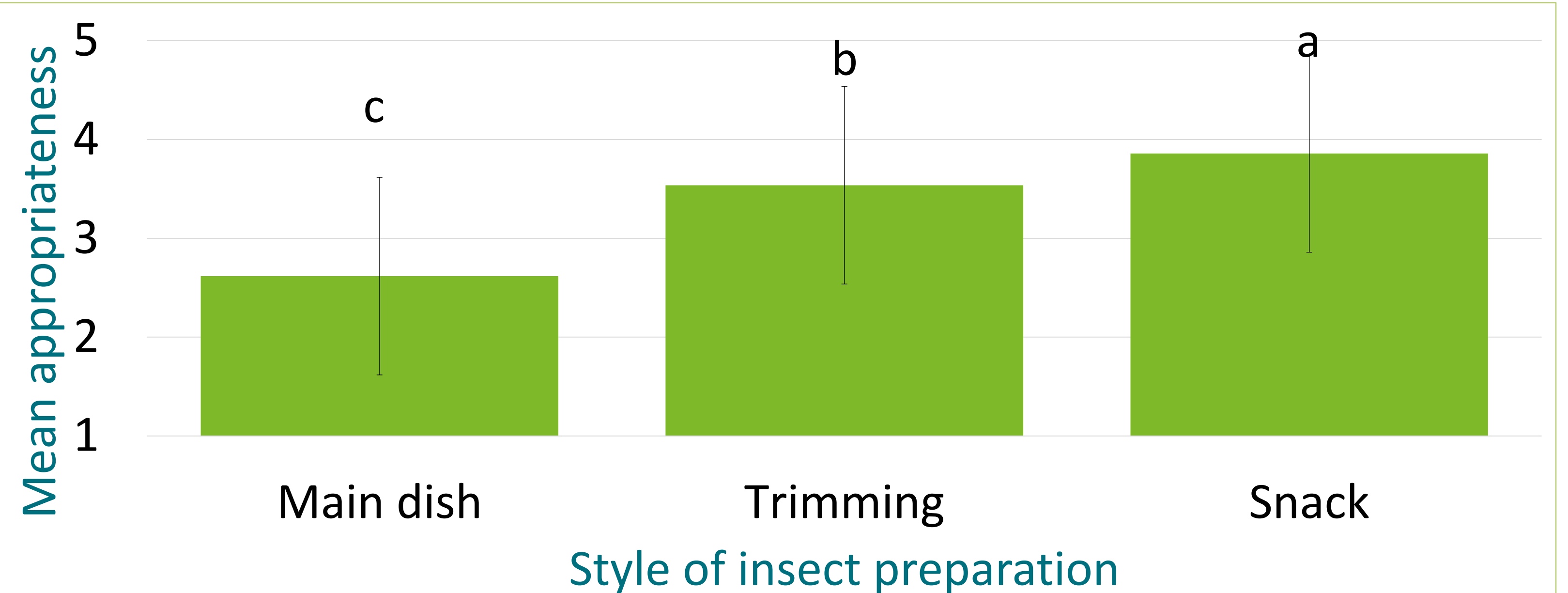


Figure 3. Mean appropriateness for 3 styles of insect preparation.