## Quality, safety and authenticity of insect protein-based food and feed: insights from the INPROFF Project

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**Table S1.** Search results (hits) for the search term "edible insects" AND targeted keywords tailored to each pillar theme

| Pillar I: Enhancing<br>Nutritional quality of<br>insect biomass |       | Pillar II: Safety and Quality      |      | Pillar III: Authenticity,<br>traceability and<br>consumer acceptance |      |
|---|-------|------------------------------------|------|--|------|
| Search terms: "edible insects" AND                              | Hits  | Search terms: "edible insects" AND | Hits | Search terms: "edible insects" AND                                   | Hits |
| "nutritional value"   | 338   | "safety"                           | 362  | "authenticity"   | 12   |
| "sensorial properties"  | 5     | "chemical safety"                  | 13   | "traceability"   | 4    |
| "shelf life"  | 43    | "microbiological safety"           | 12   | "adulteration"   | 8    |
| "feed"  | 515   | "toxic elements"                   | 5    | "labelling"  | 24   |
| "feed modification"   | 0     | "plant toxins"                     | 3    | "stable isotopes"  | 6    |
| "proteins"  | 1,178 | "mycotoxins"                       | 28   | "origin"   | 60   |
| "amino acids"   | 282   | "contaminants"                     | 35   | "entomophagy"  | 556  |
| "fatty acids"   | 286   | "chemical contaminants"            | 5    | "consumer acceptance"  | 124  |
| "fibre"   | 130   | "pesticide residues"               | 12   | •  |      |
| "chitin"  | 103   | "biohazard"                        | 1    | Metrological approach and challenges                                 |      |
| "minerals"  | 218   | "agricultural by-products"         | 5    | Search terms: "edible insects" AND                                   | Hits |
| "elements"  | 85    | "food waste"                       | 28   | "metrology"  | 0    |
| "vitamins"  | 161   | "microplastic"                     | 2    | "reference<br>material"  | 2    |
| "bioactive compounds"   | 64    | "suspect screening"                | 1    |  |      |
| "anti-nutrients"  | 11    | "HRMS"                             | 4    |  |      |
| "gut microbiome"  | 8     | "microbiota"                       | 59   |  |      |
| "fermentation"  | 49    | "pathogenic<br>microorganisms"     | 9    |  |      |
|   |       | "viruses"                          | 16   |  |      |

Table S2. Search results (hits) for the search term "edible insects" AND studied species

| Search term: "edible insects" AND | Hits |
|-----------------------------------|------|
| "Tenebrio molitor"                | 333  |
| "Locusta migratoria"              | 60   |
| "Acheta domesticus"               | 158  |