

Meeting Flyer

Title: “**Assessing the Potential of Insects as Food/Feed in assuring Food Security**”

Venue: FAO, Rome. Lebanon Room, 23,24,25 January 2012

Organizers: FAO in close collaboration with Wageningen University UR

Participation: On invitation. Expected total of maximum 60 persons, of which:

- 14 sponsored/ invited experts (travel/lodging paid by NL),
- some 20 attending meeting on own expenses,
- some 30 experts from FAO (mainly attending those sessions related to their expertise)

Purpose: To compile, review and validate existing and required technical baseline information and experts [incl. identification of key knowledge gaps] in preparation for elaborating the technical agenda for the first international Conference on the role of insects for Food/Feed security (planned for the second half 2013 at a still to be decided date/location).

Issues¹ proposed for checking base-line information status by the Technical Meeting along the following proposed eight thematic fields:

1. **Insect ecology and biology, harvesting and IPM:** taxonomy, sustainable harvesting, over-exploiting, natural resource management, agro-ecosystem development and Integrated Pest Management-IPM; invasive species, biodiversity, ethno-anthropology & history of entomophagy.
2. **Farming insects for food and feed:** (semi-)domestication, production (rearing procedures, mass production, mechanization, pathology,), trade-off domestication-farming, efficiency of food conversion; economics; environmental aspects (greenhouse gas and ammonia emissions).
3. **Insects as livestock / fish feed (technical issues):** Potential insects (soldier fly; housefly, termites, grasshoppers, mealworms,...); converting manure and other organic waste products to livestock, poultry or fish feed; animal nutrition; feed safety.
4. **Nutrition of edible insects:** traditional food; nutritional composition (proteins, vitamins and minerals, fatty acids, chitin,); proper storage (shelf-life) and processing, allergies, food hygiene; contamination; Codex Alimentarius.
5. **Insect/ food processing and trade:** food processing technology; preservation techniques, isolation of proteins; cell line cultures; food processing industry; macro-economics; food/feed trade; market dynamics (import and export, supply and demand).

¹ please add other relevant issues that are not yet listed here, and which you feel need to be considered when assessing the potential of edible insects for Food/ Feed security

6. Communication, consumer attitudes, marketing strategies: cookbooks; websites; e-mail networks; publications; training; media attention; public awareness campaigns, trade names.
7. Food/Feed safety: food safety legislation and regulatory issues (novel food); packaging and labeling, allergies, food hygiene; contamination; Codex Alimentarius, risk assessment (pesticide residues), quality control.
8. Food/Feed policies and Food security: emergency and famine relief food, role of public and private partners; national and international strategies, developing statistics on national level; production and trade.

Background:

Trends towards 2050 predict a steady population increase to 9 billion people, forcing an increased food/feed output from available agro-ecosystems resulting in an even greater pressure on the environment. Scarcities of agricultural land, water, forest, fishery and biodiversity resources, as well as nutrients and non-renewable energy are foreseen.

Edible insects contain high quality protein, vitamins and amino acids for humans. Insects have a high food conversion rate, e.g. crickets need six times less feed than cattle, four times less than sheep, and twice less than pigs and broiler chickens to produce the same amount of protein. Besides, they emit less greenhouse gases and ammonia than conventional livestock. Insects can be grown on organic waste. Therefore, insects are a potential source for conventional production (mini-livestock) of protein, either for direct human consumption, or indirectly in recomposed foods (with extracted protein from insects); and as a protein source into feedstock mixtures.

For approximately 2 billion people, mainly in Africa and Asia, eating insects is already a common dietary habit. Particularly for the one billion hungry people on this planet, insects are a unique opportunity to supplement their protein needs as well as to provide them with income earning activities based on processing and sales of harvested insects for feed to fish-chicken-farms.

FAO is taking steps in drawing attention to this valuable food source, such as mapping world wide activities in this field, proposing a communication strategy (publication and congress), funding field projects (ex. TCP/LAO/3301 in Laos) and by outlining the opportunities of insects as a viable source of protein. In the developing world, a re-evaluation of the food resource is required, while in the western world processing technology needs to be developed in order to make it an acceptable food item. The interest of using insects as a human food source is increasing, as testified by the wide media attention given to this topic over the last years.

FAO together with WUR intends to organize an international conference in 2013 on the 'Potential of insects as food and feed in assuring food security'. The conference aims to bring together senior policy makers in the Food/-Feed sectors with technical experts from different fields of expertise as well as with stakeholders from the private sector, ngo's and donor communities from all continents. The conference will cover a wide range of issues, bring together knowledge, create awareness, interest policymakers, NGOs and private enterprises, and plans to formulate recommended ways towards improved sustainability of our food/feed resource systems based on using edible insects. In order to prepare the technical agenda for

this International Conference, a preparatory consultation gathering is organized by
FAO/WUR during 23-25 January 2012 at FAO HQ, Rome, Italy.

For further information, please contact:

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