

# MEDIA RELEASE

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## A NOT SO PESKY FLY: SORTING WASTE, FOOD SECURITY, JOBS AND THE ENVIRONMENT

Looking for innovative approaches to address food insecurity, rising unemployment and the problem of organic waste pollution has led researchers to a not so pesky fly. Specifically, the black soldier fly converts waste into nutrient-rich fertiliser for crops; provides high-quality insect biomass for livestock feed and has the potential to drive job creation for our neighbours.

**Dr Fathiya Mbarak Khamis**, a molecular biologist specialising in insects at the International Centre of Insect Physiology and Ecology (icipe) in Kenya is focused on innovative approaches to creating value for food loss and waste through insect farming. She will be addressing the Crawford Fund's international conference - Australia's key food security event - *Global Food Security in a Riskier World* being held in Canberra, 4-5 September. The conference includes a keynote address by **Dr Cary Fowler**, the US Special Envoy on Food Security and "father" of the Svalbard Global Seed Vault.

"Food demand is expected to increase by 70 per cent to meet the food and nutritional security of a projected population of 9.7 billion people by 2050. However, unemployment and the lack of cost-efficient inputs such as fertilisers and feeds are constraining crop and livestock productivity in some regions of the world, thereby increasing food insecurity," said Dr Khamis, Senior Scientist at ICIPE, which is collaborating with ACIAR and AgriFutures Australia to accelerate insect farming as an emerging industry in Africa and Australia.

"By 2050, 68% of the global population is anticipated to live in cities resulting in rising food prices, unemployment, and environmental degradation through massive accumulation of organic wastes, with only a very small proportion of it appropriately recycled in developing countries. There is an urgent need to address this pollution."

According to Dr Khamis, these diverse and interlinked challenges call for innovative solutions.

"The black soldier fly (*Hermetia illucens*) is a good candidate for this circular solution to food insecurity and waste management because it recycles organic wastes into nutrient-rich organic fertilisers for crop productivity, while also supplying high-quality insect biomass rich in crude proteins, fats, gross energy, well-balanced amino acids and vitamins for the feed sector to enhance livestock productivity.

"This is an innovative, eco-friendly and circular solution that contributes to environmental sustainability (mitigation of waste), food security (enhanced crop and livestock production) and has the potential to contribute to the critically needed employment for youth and women in Africa, South Asia and the Pacific Islands," she said.

Furthermore, the high quality and locally produced insect protein and insect-based organic fertilisers can be excellent substitutes for often imported feed protein additives and synthetic fertilisers with potential to reduce the import bills of several developing and underdeveloped nations," she concluded.

The Fund's annual conference will bring together international and Australian specialists to address the grand challenge presented by the need to produce more nutritious food, sustainably, in a riskier and more uncertain world.

Other speakers include **Em Prof Kym Anderson AC**, renowned trade economist and winner of the Crawford Fund medal, **Professor Wendy Umberger**, CEO, The Australian Centre for International Agricultural Research, **Ben Fargher**, Environmental Markets Lead, Cargill Asia Pacific, and **Dr Warren T K Lee**, Senior Nutrition & Food Systems Officer, UN FAO.

