**Call for Submission of Research Proposals for a new FAO/IAEA Coordinated Research Project (CRP) on *Improving rearing, handling, and field components for fruit fly SIT application***

Fruit flies are one of the most destructive pests affecting production and international trade of fruits and vegetables worldwide. As such, fruit fly pests are a significant constraint on reaching the sustainable development goals of the UN by affecting food security and safety as well as poverty reduction and the environment. In the past decades the sterile insect technique (SIT) has been successfully incorporated to area-wide integrated pest management against some of the most important fruit fly pests in a number of Member States. Nevertheless, application of SIT could be further improved and optimized by incorporating recent technological innovations and by harmonizing technologies and tools through applied research. To achieve this goal the following research topics should be addressed: improved breeding colonies by maintaining genetic diversity, application of more efficient diets for mass-rearing, better nutrition of sterile flies to enhance male mating performance, decision support tools to optimize sterile fly release, improved monitoring and detection through more effective trapping systems, optimization of trapping networks through decision support tools and increased efficiency in population suppression using novel bait station technology. This research is expected to further advance the application of the SIT and related technologies against fruit fly pests of economic and quarantine importance. Those improvements will be made available to the Member States through technology transfer.

**Objectives:** The main objective of this CRP is to optimize and harmonize the use of SIT and related technologies for improved management of fruit fly pests.

**Main Activities:**

* Improved area-wide SIT through maintaining high genetic diversity by introducing wild gens into GSS breeding colonies
* Mass-production of fruit flies enhanced though new and improved gel diets
* Enhance field performance of sterile insects by providing food supplement to adults before field releases
* Fruit fly monitoring and detection improved through more efficient traps and attractants
* Fruit fly control improved through more efficient population suppression tools.

**Applications:** Scientists and researchers who are interested in collaborating in this new CRP should contact Walther Enkerlin (W.R.Enkerlin@iaea.org) or Rui Cardoso Pereira (R.Cardoso-Pereira@iaea.org). Information on the IAEA Coordinated Research Programme and how to apply for research contracts and research agreements can be found at http://cra.iaea.org/. Applications should be submitted by **20 August 2021** to research.contracts@iaea.org.