

FOOD AND AGRICULTURE

Nuclear technologies provide competitive and often unique solutions to help fight hunger and malnutrition, combat plant and animal diseases, improve agricultural productivity and environmental sustainability and ensure that food is safe. The IAEA and the Food and Agriculture Organization of the United Nations (FAO) work in partnership to help Member States use these technologies safely and appropriately.



Male fruit flies sterilized using gamma rays released together with normal flies at a Costa Rican coffee plantation in 1971 to study the use of nuclear technology in the sterilization of insect pests to protect fruit and other crops.

Photo: United Nations



An IAEA fellow trained in food quality testing using nuclear-derived techniques in 2012 at the Joint FAO/IAEA Food and Environmental Protection Laboratory in Seibersdorf, Austria.

Photo: IAEA

FOOD

IAEA fellows attending training on plant mutation breeding technology in 2012 at the Joint FAO/IAEA Plant Breeding and Genetics Laboratory in Seibersdorf, Austria.

Photo: IAEA



Vets from Cameroon's National Veterinary Laboratory in 2012 draw blood from an animal in Gabarey Waka to test for peste des petits ruminants (PPR) using nuclear-related techniques. PPR is a highly contagious disease that kills goats and sheep.

Photo: IAEA





Thanks to drip irrigation optimized through nuclear science, introduced in Sudan in 2015 with IAEA support, Sudanese women run small-scale farms and gardens that thrive in water-scarce areas of Sudan.

Photo: IAEA

AGRICULTURE



A scientist at a 2016 IAEA training course learns how to use a nuclear-derived technique to detect the Zika virus and to control the mosquito vectors by integrating the sterile insect technique (SIT) into comprehensive mosquito control plans.

Photo: IAEA