LOCATION

Spain

PARTNERS

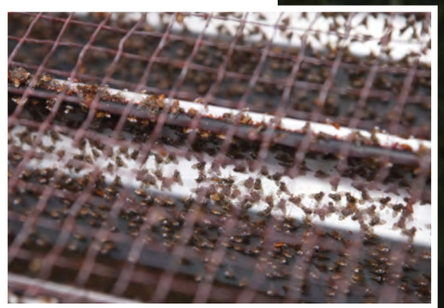
3.3 Pest Management Control on Fruit Fly

CHALLENGE

The Mediterranean fruit fly (Ceratitis capitata) is a dangerous pest for a wide range of distribution and host plants. A key challenge is how to deal with agricultural pests like fruit flies while reducing the use of chemical treatments. Currently traps are used and serviced manually each week. Captures are classified individually in the lab into sterile and wild flies. Sterile male flies are then released into the field to mate with wild females. No progeny will be produced and the wild population will decrease after several generation. However, the manual work involved is costly and time-consuming.

AIM

This pilot aims to optimise the release strategy of sterile male fruit flies by collecting enough field data in an efficient way.



HOW

The pilot will test the use of automatic traps that capture the fruit flies and sensors that detect when insects are inside the trap. The automatic trap will take real-time images of the captures. These images are sent to a server and based on machine learning approaches, the captures will be counted and identified as wild and sterile.

BENEFIT

The main benefit of this pilot project is achieving a more precise method to manage fruit fly control programs. Real-time capture data will allow improvements to be made to the release strategy of sterile males, thus reducing the occurrence of the pest over time. The automatic counting traps will result in a reduction in time, effort and cost associated with servicing the traps. Furthermore, real-time data will be sent to farmer relating to the status of the pest in the field.