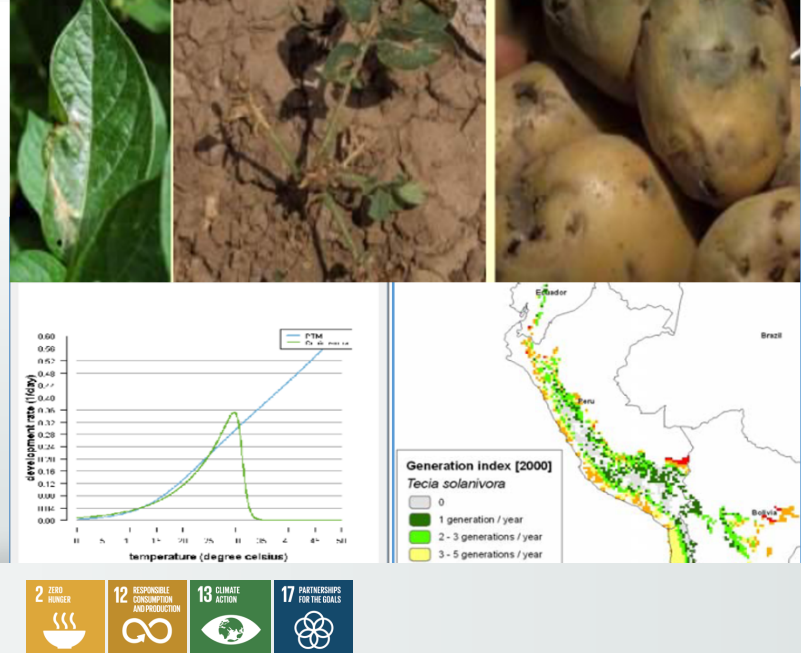


# Tool to predict the growth of pest populations in different potato agroecosystems

PERU / BOLIVIA / ECUADOR

 Webstory



## The technological solution

Insect pests are made up of poikilothermic organisms that are not capable of regulating their body temperature, so their development depends on the temperature of the environment. These organisms require a large amount of specific heat to develop and pass from one state to another within their life cycle.



## Description

A phenological model was developed for the potato moth (*Phthorimaea operculella*) based on temperature, which satisfactorily predicts life parameters for different agroecological zones validated in the field and in the laboratory. The model allows the simulation of risk indices on a world scale.



## Results

- Phenological models based on temperature developed for the pests *T. solanivora* and *S. tangolias*; and for the parasitoids *C. koehleri*, *O. Lepidos*, *D. gelechiidivoris* and *A. subandinus*.
- Development of the ILCYM program (software) for phenological models.
- Modeling program linked to GIS to obtain maps.
- Useful tool to analyze the effect of climate change on insect populations.

**+1500**

Farmers benefited

**1**

Software

**11**

Publications

**20**

Training courses

## ABOUT FONTAGRO

FONTAGRO is a unique cooperation mechanism for agricultural innovation in Latin America and the Caribbean (ALC) and Spain, that works through regional platforms. It is composed of 15 countries that have contributed capital exceeding 100 million dollars and the Inter-American Development Bank (IDB), which is its legal representative.

### ORIGIN OF RESOURCES



● **Counterpart contribution**  
93.177.555

● **FONTAGRO**  
28.989.468

● **IDB**  
9.922.700

● **Other agencies**  
9.809.078

### PARTICIPATION AND ROLE IN CONSORTIUMS SINCE 1998



### FONTAGRO IN NUMBERS

**193** Number of projects approved

**141.9** Approved total amount US\$  
MILLONES

**9.8** Contribution from other agencies  
MILLONES

**32** Benefited countries

**63** Generated technologies

**15** New technologies for ALC

**8** Technology of global relevance

### MEMBER COUNTRIES

