

# Calculate the risk of wireworm infestation in the field

## Problem

Wireworms, the larvae of the click beetle, can cause severe damage to potatoes (and other susceptible crops). They burrow into the tubers and render them unsuitable to be marketed for consumption. Wireworms usually live in the top soil layers in spring and autumn, but during summer as the heat increases, they move downward. If the heat and dry weather persist, they actively seek the watery tubers and start burrowing.

## Solution

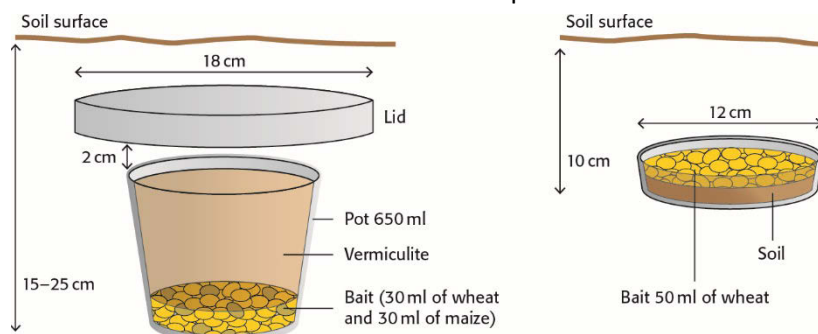
By setting up wireworm traps during spring, the number of wireworms can be determined before planting the potatoes. The traps are based on the premise that wireworms are drawn to sources of CO<sub>2</sub> (like sprouting roots).

## Outcome

With this measure, a field can be evaluated and deemed fit for cultivating potatoes. Thanks to the assessment of the number of wireworms, high economic yield losses due to unmarketable tubers can largely be avoided. The assessment of wireworm density provides a quite reliable indication to infestation risk because wireworms are not very mobile.

## Practical recommendation

- In spring, with a soil temperature of at least 8 °C, place a pot full of cereal or maize grains into water and allow it soak for 24 hours.
- Spread out the soaked grains on about 20 cardboard or plastic plates, pot traps, stockings with adequate mesh size or similar materials. Sealable containers must have several holes; through which the worms can access the trap (Figure 1).
- Position the traps at a depth of 10 cm with at least 10 to 15 traps per field. The more traps per ha, the more reliable the results. Cover the traps with earth to soil-level and mark the locations.



**Figure 1: Schematic representation of a pot and plate trap as well as an image of a Meles pot trap** (Photo: Meles GmbH, [www.melesbio.at](http://www.melesbio.at)).

## Applicability box

### Theme

Pest and disease control, crop-specific measures

### Geographical coverage

Potato cultivation areas

### Application time

In spring, when temperature rises above 15 °C

### Required time

Swell cereal grains, fill up traps and set them up, collect traps and count wireworms

### Period of impact

Preventive measure for the succeeding crop

### Equipment

Shovel, 20 wireworm traps, cereal grains

### Best on

Before cultivating potatoes or other crops susceptible to wireworms, like carrots, onions or salad