

PRODIGGA: a start-up that meets emerging laboratory needs and Nature-based solutions for soil sustainability



PRODIGGA



INRAE

la science pour la vie, l'humain, la terre

PRODIGGA

How can the effects of pesticides be effectively evaluated in the laboratory when the regulated earthworm species currently used is not very sensitive and is not representative of natural soils with low biodiversity?



ORIGIN

Willingness to promote INRAE know-how born of a scientific approach promoting soil sustainability.



OBJECTIVE

To produce, synchronize, calibrate and commercialize relevant earthworms for regulatory testing, scientific experimentation on the species and revitalization of impoverished soils.

THE SOLUTION

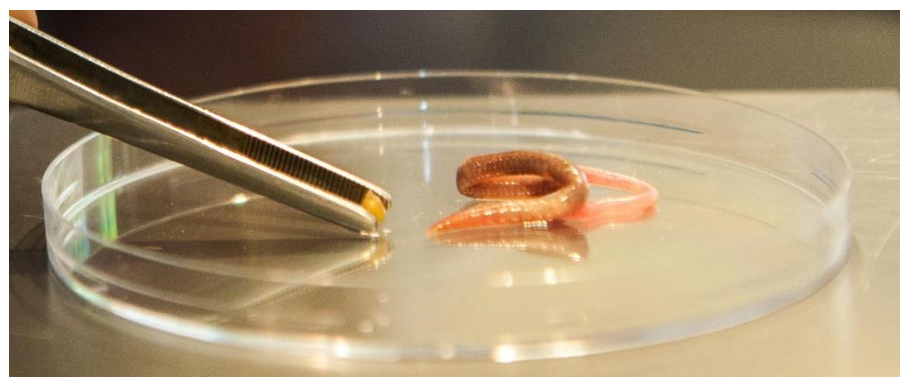
THE EARTHWORM *A. CALIGINOSA*

→ Modification of the ISO norm (ISO 11268-2:2012) on the effect of pollutants on earthworms that specifies regulatory guidelines for the plant protection industry.

Currently, *Eisenia fetida*/*Eisenia andrei* is used as models for testing. However, the earthworm species *Aporrectodea caliginosa* is much more representative because it is more sensitive to its environment and occurs naturally in the soil. ***A. caliginosa* is about to be incorporated into the standards as a model for bioanalysis.**

→ Breeding of *A. caliginosa* can be carried out under controlled conditions allowing for **synchronized, calibrated, and standardized individuals on an industrial scale.**

→ The functions of *A. caliginosa* in soils (burrowing, digging horizontal burrows in the superficial part of the soil, digesting and mixing organic matter with mineral particles, releasing fertilizing excrements along its path, etc.) makes it a really **good candidate for maintaining field fertility and revitalizing impoverished soils.**



SCIENTIFIC EXPERIMENTS



RESEARCH IN LABORATORY



REGULATORY TESTING