

Technical Documentation

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Release chronology

First release	September 2021
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Package content

This package includes the calculated $LC_{50,mix}$ in [mg/kg-soil] of earthworms resulting from the soil residue of up to 20 active ingredients of pesticides used in 9 cropping systems, the number of active substances in the mixture, and the percent decline in earthworm population size in these cropping systems. The 9 cropping systems under consideration are: corn, soybean, wheat, cotton, vegetables and fruits, rice, orchards and grapes, alfalfa, and other.

Bounding box and resolution

Bounding box: 180°E-180°W; 90°S-90°N

Resolution: 0.5 x 0.5 degree (about 55 km at the equator)

Pixel density: 360 x 720

Coordinates: standard WGS84

File format

Goetiff (referenced .TIF). Files include a legend.

File naming

Files have the following name structure

LC50mix_XXXX.tif

Percent_decline_XXXX.tif

AI_count_XXXX.tif

where XXXX indicates the cropping system.

Visualization

There are a number of tools to visualize and elaborate .TIF files including the QGIS software available at <https://www.qgis.org/en/site/>. Alternatively, files can be opened in @Matlab, Python, R, and other freeware or licenced software.