USEtox® 2.0
Scientific Consensus Model
Characterizing Human Toxicity and Ecotoxicity for Life Cycle Assessment
New: Indoor Air Environment
• Household and industrial indoor air compartments
New: Exposure to Pesticide Residues

- Human exposure to pesticide residues in crops from direct application

- Wheat (68% of cereals)
- Paddy rice (97% of paddy cereals)
- Tomato (15% of herbaceous vegetables)
- Apple (13% of fruit trees)
- Lettuce (14% of leafy vegetables)
- Potato (51% of roots and tubers)

45% of global vegetal consumption
New: Regionalized Landscape Data for Sensitivity

- **Landscape datasets** for 8 continental and 17 sub-continental regions
- Wind speed, rain, human population, intake
- **Sensitivity study** for «default» dataset
New: User Interface and Documentation

New interactive user input interface

Dynamic output graphs
What else is new?

- Environmental fate of ionizing organic substances
- Acids, bases, amphoters partitioning in soil considered
- Generic freshwater ecotoxicity characterization for cationic metals
- Partitioning adjusted for truly dissolved fraction
- Based on parameterized freshwater archetypes
- Data and factors for new chemicals (few PAHs and metals)
- Updated soil degradation half-lives for pesticides
- Corrective updates of fate data (irrigation, run-off, ...)

- USEtox 2.0 description/comparison with USEtox 1.01 peer-reviewed paper to be submitted in fall 2015
- Comprehensive documentation to be released end of 2015
- Several 100 new substances to come within next months
What About USEtox 2.0 vs. USEtox 1.01?

Generally, **good agreement for most substances**, BUT significant differences (improvements!) for some substances...
USEtox 2.0 Model and Factors available at:

http://usetoxx.org

Please contribute with updates – contact:

contact@usetoxx.org