

# Accepted Manuscript

Evaluating the environmental parameters that determine aerobic biodegradation half-lives of pesticides in soil with a multivariable approach

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PII: S0045-6535(18)31153-6

DOI: [10.1016/j.chemosphere.2018.06.077](https://doi.org/10.1016/j.chemosphere.2018.06.077)

Reference: CHEM 21609

To appear in: *ECSN*

Received Date: 25 March 2018

Revised Date: 6 June 2018

Accepted Date: 11 June 2018

Please cite this article as: Wang, Y., Lai, A., Latino, D., Fenner, K., Helbling, D.E., Evaluating the environmental parameters that determine aerobic biodegradation half-lives of pesticides in soil with a multivariable approach, *Chemosphere* (2018), doi: [10.1016/j.chemosphere.2018.06.077](https://doi.org/10.1016/j.chemosphere.2018.06.077).

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16 **HIGHLIGHTS:**

- 17 • Aerobic biodegradation half-lives collected from literature for eleven pesticides.
- 18 • Multivariable framework developed to link environmental metadata to half-lives.
- 19 • Application history and biomass always positively associated with half-lives.
- 20 • Relevance of other metadata depend on physicochemical properties of pesticide.
- 21 • Results provide quantitative link between half-lives and partitioning behavior.

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