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

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.

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HIGHLIGHTS:

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