

RNA-based biocontrols Open Data - Other Crop Pests

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1. Summary

The contents of this data package present the results from experiments investigating the selectivity of RNA-based biocontrols on a range of non-target species. The datasets include biological screening data for the lead RNA-based biocontrol candidate for the Colorado Potato Beetle tested for mortality against common insect pests in agricultural crops.

2. Metadata

Description of the dataset	The dataset includes biological screening data for the lead RNA-based biocontrol candidate for the Colorado Potato Beetle tested for mortality against common insect pests in agricultural crops.
Date of first publication	31 st August 2016
Date of last update	30 th June 2017
Date of next update	-
Frequency of updates	Periodically
License for re-using the data	The contents of this dataset and all supporting documentation are licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.
Text to use when citing the data	RNA-based biocontrols Open Data - Other Crop Pests
URL to use when citing the data	www.syngenta.com
Data language	English
Key words	RNA-based biocontrol; <i>Spodoptera</i> ; <i>Plutella</i> ; <i>Frankliniella</i> ; <i>Aphis</i> ; <i>Myzus</i> ; <i>Nilaparvata</i> ; <i>Tetranychus urticae</i>
Subject	RNA
Copyright year	2016
Copyright holder	Syngenta AG

3. Structure of the Data

3.1. Other_crop_pests

Variable name	Definition	Unit	Type of data
rate	Multiple of field rate		Integer
repNumber	Replication number		Integer
pestType	Type of pest		Categorical
target	Is the test subject species the target? (N - No) (Y - Yes)		Categorical
species	Species of the test subject		String
infestation	Count of test subjects per test		String
evaluationCode	Evaluation type code		Categorical
evaluationDescription	Evaluation type description		String
stage	Growth stage of the test subject		String
treatment	Treatment or control type		Categorical
testType	Method of treatment		Categorical
testPlant	Plant used in test		String
mortalityPercent	Percentage of dead test subjects	%	Numeric
activityAtFieldRate	Activity observed at field rate?		Categorical
activityAt2xFieldRate	Activity observed at twice field rate?		Categorical

4. Background and Methods

4.1. Other_crop_pests

This dataset is the result of a study to measure the selectivity of the RNA-based biocontrol candidate for target Colorado Potato Beetle (CPB, *Leptinotarsa decemlineata*). The data shows the results for numerous pest species in agricultural crops. Another dataset for CPB and more closely related relatives assessed during the same experiment can be found in the data package 'Target Species CPB and Closely Related Species'.

In this test, the subject was exposed to 1x and 2x the field application rate, with 2 replications.

The bioassays were setup and rated using Syngenta's standard bioassay screening procedures, although this was not a GLP experiment.

The mortality was calculated per replicate as $\{\text{sum of dead test subjects}/(\text{sum of all test subjects})\}$.

5. Contact Information

For questions and inquiries regarding this dataset and documentation, please contact rna.data@syngenta.com.