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Author Correction: Impact of low lethal concentrations of buprofezin on biological traits and expression profile of chitin synthase 1 gene (*CHS1*) in melon aphid, *Aphis gossypii*

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Correction to: *Scientific Reports* <https://doi.org/10.1038/s41598-019-48199-w>, published online 23 August 2019

The original version of this Article contained errors.

In Table 1, in the penultimate column the incorrect symbol for Chi-square was used in the column heading.

“ x^2 (df)”

now reads:

“ χ^2 (df)”

Further, Table 3 contained an error. The standard errors for the control, LC₁₅ and LC₃₀ were incorrectly reported, due to mistranscription of the exponent values. As a result, the originally reported values were three orders of magnitude too high.

For the parameter r , the values for ‘Control (Mean \pm SE)’, ‘LC₁₅ (Mean \pm SE)’ and ‘LC₃₀ (Mean \pm SE)’;

“0.302 \pm 5.413a, 0.275 \pm 5.022b and 0.196 \pm 3.035b”

now read:

“0.302 \pm 0.0054a, 0.275 \pm 0.0050b and 0.196 \pm 0.0030b”

For the parameter λ , the values for ‘Control (Mean \pm SE)’, ‘LC₁₅ (Mean \pm SE)’ and ‘LC₃₀ (Mean \pm SE)’;

“1.353 \pm 7.325a, 1.317 \pm 6.617b and 1.217 \pm 3.695b”

now read:

“1.353 \pm 0.0073a, 1.317 \pm 0.0066b and 1.217 \pm 0.0037b”

In the Materials and Methods section under subsection ‘Data Analysis’, Equations (8) and (9) were incorrectly reported. The authors used the notation provided in the original study describing these Equations. This study was

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subsequently corrected¹, but although the correct Equations were used for calculations, the incorrect Equations were included in the original version of the Article.

Therefore, Equation (8),

$$e_{xj} = \sum_{i=x}^n \sum_{j=y}^m S'_{ij}$$

now reads:

$$e_{xj} = \sum_{i=x}^{\infty} \sum_{y=j}^m S'_{iy}$$

In addition, Equation (9),

$$V_{xj} = \frac{e^{-r(x+1)}}{S_{xy}} \sum_{i=x}^n e^{-r(i+1)} \sum_{j=y}^m S'_{ij} f_{ij}$$

now reads:

$$V_{xj} = \frac{e^{r(x+1)}}{S_{xj}} \sum_{i=x}^{\infty} e^{-r(i+1)} \sum_{y=j}^m S'_{iy} f_{iy}$$

In the same subsection, under Equation (9):

“Population growth (mean and standard error) was calculated through paired bootstrap test⁸¹ using TWSEX-MS Chart with 100,000 replicates^{53,82}.”

now reads:

“Population parameters were calculated and compared through paired bootstrap test⁸¹ using TWSEX-MSChart with 100,000 replicates^{53,82}.”

References 78 and 79 were incomplete and were incorrectly listed as ‘Finney, D. (Cambridge University Press, London, 1971)’ and ‘Huang, Y. B. & Chi, H. The age-stage, two-sex life table with an offspring sex ratio dependent on female age (2011)’ respectively. The correct references are given below.

Finney, D. J. Probit Analysis. Cambridge University Press, Cambridge (1971).

Huang, Y. B. & Hsin Chi. The age-stage, two-sex life table with an offspring sex ratio dependent on female age. *Journal of Agriculture and Forestry* **60**(4), 337–345 (2011).

Furthermore, in the Supplementary Materials file, the title,

“Impact of low-dose buprofezin on the biological traits and expression profile of chitin synthase 1 gene (*CHS1*) in melon aphid, *Aphis gossypii*”

now reads:

“Impact of low lethal concentrations of buprofezin on biological traits and expression profile of chitin synthase 1 gene (*CHS1*) in melon aphid, *Aphis gossypii*”

These errors have now been corrected in the HTML and PDF versions of this Article, and in the accompanying Supplementary Materials.

Reference

1. Tuan, S.-J., Lee, C.-C. & Chi, H. Population and damage projection of *Spodoptera litura* (F.) on peanuts (*Arachis hypogaea* L.) under different conditions using the age-stage, two-sex life table. *Pest. Manag. Sci.* **70**, 1936–1936. <https://doi.org/10.1002/ps.3920> (2014).



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