Reviewer's report

Title: Analysis of the Volatile Organic Compounds from Leaves, Flower Spikes, and Nectar of Australian grown Agastache rugosa

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Reviewer: Yit Heng Chooi

Reviewer's report:

This short report identified the volatile organic compounds from Agastache rugosa, in particular the flower nectar, which is highly relevant for production of bioactive honey. It is known from previous studies that the other parts of A. rugosa contain high level of estragole, which has been shown to be unsafe for consumption at high doses. Here, it was reported that the flower nectar also contains high level of estragole. One potential shortcoming (minor) is that the authors did not show that if the honey from bees cultivated with A. rugosa as the source of nectar also contains high level of estragole. Nonetheless, this finding has important implication for honey bees growers and researchers intended to use A. rugosa as source of nectar. The experiments are generally performed to high standards and the data support the conclusions.

There are several Compulsory Revisions required before the paper can be published:

1) Figure 1 is not mentioned in the text, unless I missed it.

2) Table 1 use methyl chavicol instead of the synonym estragole that was used throughout the text. The text make no mentioned that estragole = methyl chavicol. To avoid confusing the readers, it may be better to stick with estragole or put in a parenthesis like in Figure 2 for Table 1.

3) Line 51, (SPME) should be (HS-SPME/GC-MS)? Although described in the abstract, the abbreviation should be defined again when it is used the first time in the text.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests