PLANTS_1427181 Review Report:

Overall Comment: Overall oil palm review is written well; however, the manuscript structure seems bit inconsistent. Authors are encouraged to refer to other article reviews and rearranged the manuscript structure since it is bit confusing to maintain the reading flow as review idea has to be focused on the manuscript title. The idea is very important for oil palm researchers and other stakeholders but needs further work to present it in a logical order. Also, there are several issues with appropriate use of English hence authors are encouraged to have the manuscript reviewed by native English speaker. There are other comments made as shown below and authors are encouraged to revised the manuscript following given review comments.

Title: The presented title contradicts the presented review since the term "resistance" only alludes to biotic stress; however, the review manuscript focuses on all sort of stresses including abiotic and biotic stresses. Please be consistent with the use of terminology that would not create confusion in reader's mind.

Abstract: Abstract is bit longer than the recommended word limit hence please rewrite some sentences that are repetitive and try to write the abstract succinctly in recommended limit of 200 words.

Introduction:

Line 29: "on the land", no need of this mention since this is implied automatically.

Line 38: "However, tolerance strategy is limited to oil palm species.", please connect this sentence with the previous sentence since it is related to it while this sentence is too short to be on its own. Authors can write it like Stress tolerance enables…favorable conditions; however, tolerance strategy is limited to oil palm species."

Lines 38-41: "research on stress-resistant 38 breeding of oil palm can improve the yield of oil palm fruit, enhance the resistance of oil 39 palm, and promote the production and development of the oil palm industry, to further 40 satisfy the demand for palm oil.". Too redundant as use of oil palm is repetitive and I think authors can limit this repetition by presenting like "research on stress-resistant breeding of oil palm can improve the yield, enhance resistance, and promote the production and development of oil palm industry to further satisfy demand for palm oil."

Line 53: "been a topic of great concern" present it as "a concern to relevant stakeholders"

Line 54: "biotechnology," no need of comma, please remove the same

Line 55: "that confer stress resistance" this part of the sentence looks like italicized please check and correct it as needed

Lines 59-60: "using techniques", please specify what technique?

Line 71: "measures" not appropriate term, please use "descriptors or traits" instead

Line 54: "re- 72 searches" looks like a typo, should be "researchers" instead

Lines 87-94: Paragraph starting with “Thirasak et al” should be merged with previous paragraph as the last paragraph is too small.

Line 100: “thin,” no need of comma after this word so please correct the same

Line 118: “Proline is also one of the stress indicators for drought. Proline is a” please correct it as “Proline is also one of the stress indicators for drought as it is a”

Line 120: “was also studied, with” should be written as “has also been studied with”

Line 132: “under moderate stress, but not statistically different from the control. The content of” this part of the sentence looks like italicized please check and correct it as needed

Lines 145-147: “pe- 145 roxidase (POD) activity, catalase (CAT) activity, superoxide dismutase (SOD) activity and 146 glutathione reductase (GR) activity increased” please rewrite this sentence as “peroxidase (POD), catalase (CAT), superoxide dismutase (SOD), and glutathione reductase (GR) activities increased”

Line 150: “in responding to” please rewrite it as “in response to”

Line 155: “the susceptible to insects attacks and the pathogens” rewrite it as “susceptible to insects, pests, and pathogenic infestation”

Line 176: “7, 14 and 21 days” rewrite it as “7, 14, and 21 days”

Line 178: “to the wet” no need of the in this part of the sentence, please correct as needed

Lines 194-209: Please merge both paragraphs together and avoid presenting micro/mini paragraphs

Line 285: “leaf of were” rephrase it as “leaves were”

Line 291: “BR in” do not start the sentence with abbreviation

Lines 291-294: “In the Ecuadorian Amazon, Brazil, south west Colombia, and Suriname, BR is mostly lethal to oil palms, while in the drier eastern plains of Colombia, BR is often non-lethal, and a high rate of recovery is observed” rephrase this sentence as “In the Ecuadorian Amazon, Brazil, south west Colombia, and Suriname, BR is mostly lethal to oil palms while in the drier eastern plains of Colombia, it is often non-lethal, and a high rate of recovery is observed”

Lines 301-315: Please merge both paragraphs together and avoid presenting micro/mini paragraphs

Line 327: “and 7.0 respectively” should be rephrased as “and 0.7, respectively

Line 328: “PDA medium and PSA medium” rewrite as “PDA and PSA mediums”

Lines 421-423: “there are several hybrid material Elaeis oleifera x E. guineensis Jacq. has 421 been identified as a potential for disease resistance by expressing less severe symptoms 422 and a slower progression of the disease in infected tissue” rewrite these sentence as “there are several hybrids between

Elaeis oleifera x *E. guineensis* Jacq. have been identified as a potential sources of disease resistance which express less severe symptoms and slow progression of the disease among infected tissue"

Lines 423-425: "In terms of molecular biol-423 ogy, research on oil palm disease resistance genes is conducive to the cultivation of oil 424 palm varieties with excellent traits." highly confusing sentence please rewrite it.

Line 430: "AGLU1 and RCH10 gene" should be genes, please correct the same

Line 446: "of the disease, indicating" no need of comma in this part of the sentence, please correct the same

Lines 478-479: "in order to develop different high-yielding and 478 quality new oil palm varieties for planting in" rewrite this part of the sentence as "in order to develop diverse high-yielding and novel oil palm varieties for planting in…."

Line 482: "stressful" use "marginal" instead

Lines 449-488: Too big paragraph, please split this long paragraph into two medium paragraphs that has smooth paragraph structure

Line 490: In Figure 2, Antioxidant enzyme is repeated in the box of biochemical changes, please cross-check and correct it accordingly

Conclusion is missing, although authors have provided a sentence or two about some interpretations, but largely the conclusion is missing hence please provide a brief paragraph summarizing the key take home messages

References: There are 11 self citations out of 94, which is almost 12% of total references. It is recommended that authors only cite their references where they are relevant and deemed fit.
12, 21, 28, 37, 38, 41, 45, 50, 51, 70, 77,