

Review: Impact of Cropping Systems on Macronutrient Distribution and Microbial Biomass in Drought Affected Soils.

### **General Comments**

I enjoyed reading the manuscript 'Impact of Cropping Systems on Macronutrient Distribution and Microbial Biomass in Drought Affected Soils', studied in Ananthapuram district of Andhra Pradesh, India. It is difficult to find the aims and objectives. I could say, the aim is to find the suitable cropping systems in drought prone soils.

One important concern is the standard of writing of the manuscript. I could say poor structure of sentences through out the manuscript. It requires restructuring the sentences for easy to read, clear and concise of the meaning and keep the bonding among the sentences in a paragraph and also paragraphs to sections.

### **Abstract**

The abstract is to be clear and concise aligning with the title of the manuscript. it could be improved keeping in mind the classical structure of a good abstract.

L11-14 introductory sentence - how these lines are linked to the title. Rewrite the concept to link the objective or the gap of the previous research.

L14-16 objectives - I mentioned earlier about the objective. I could say that 'the objective is to compare the macronutrient distribution and microbial biomass in various land-use types i.e. open lands (OL), annual crops with single species (ACS), perennial crops with multiple species (PCM), less water available lands (LWA), and soil near ponds (CP) in drought prone soils'.

L17-19 methods - poor sentence structure of methods. How these methods are linked to reach the objectives.

L-20-21 data analysis – rewrite it. Overuses of the word 'employed' inappropriate sentence.

L-21-31 Results – rearrange and rewrite the results to support the objectives, not only presenting the data.

L-21-23 Results – Is Microbial biomass carbon (C<sub>mi</sub>) the main parameter that helps to to test the r hypothesis/ gain the r objectives. If not, present the indicative parameter.

L-24 - Carbon stock – how it influences? Provide data.

L-27-29 Results – is this the main outcome of the r research to gain the objective? Rewrite.

L-30-31- Outcomes – is this repetitive to the previous sentence.

L-31-33 Outcomes – I could not find “sustainable agricultural practices’ used in the other sections of the manuscript, except abstract and conclusion. How does the present research contribute to the concept of ‘sustainable agricultural practices’ ?

L-33 Outcomes – The findings of the resent study (diverse cropping systems) could be useful in the drought-prone soils in other regions to gain higher crop productions.

## **1. Introduction**

L-36-39 – This sort of sentence structure is used all-around the manuscript. These are not easy to read and understand and free flow of the topic. Please rewrite these sentences to make it concise and clear meaning.

Paragraph structure- make a topic sentence followed by the relevant information.

Research gap – discuss the relevant topics in introduction and narrow down into the research gap. Link the research gap with the objectives of the present study.

L-82-84 - Findings in introduction? Without knowing the results of the research, how will a reader link/ accept the suggestion /the finding. Better, Remove it.

Fig-1: is it relevant with the r research? It was not mentioned anywhere in the text. Fig-1 could be referred in L-80, L-91 or L-101. Place Fig-1 in appropriate location following the text.

## **2. Material and Methods**

2.1 Study area and Climatic conditions -shows 5 different land uses.

2.2 Collection of Soil Samples – defines 10 sampling sites.

Fig-1 shows 10 sampling sites at Ananthapuram district of Andhra Pradesh, India. How these 10 sampling sites are related to 5 different land uses. The 10 sampling sites were not discussed anywhere except in Fig-1 and section 2.2.

L-101-104 – a very long sentence. Poor sentence structure.

L-105- why 3 sub-samples?

2.3 Soil Analysis

L-107-112 – which methods were selected for analysing physical parameters and chemical properties?

L-113 – check the tense

## **3. Results**

3.1 Physicochemical characteristics

L-121 – is not results. It could be in methods sections (2.4 Statistical Analysis).

L-122-126 – references?

#### **4. Discussion**

In discussion, the manuscript contains several concepts, which could be presented in Introduction to find the research gap and link the objectives with the gap. In discussion, relate the results to establish the objectives. It could be referred or refuted arguments using other references.

L-178-201 could be used in Introduction to link the research gap with the objectives of the present study.

L-211 -286 very long paragraph. These could be break down into several paragraphs, attaining these objectives.

L-248-258 are the introductory concepts, that be presented in Introduction. It is not worthy to new present concept. It could be used as reference for referring or refuting the arguments/ the present results.

L-252 -253 – very poor sentence.

L- 254- 255 – reference??

#### **5. Conclusion**

As I understood, it was a comparative study among land uses in drought prone areas.

Rewrite the conclusion that the objectives were achieved. It is not worthy to present several new concepts in conclusion without discussing in results and discussion. For example, root system, perennial crops and or sustainable crop productivity.

L-310-313 could be the last sentence of the manuscript.

#### **Additional comments**

The manuscript requires a major change/ restructuring in presenting the results. Keep in mind that the literature reviews will be presented in Introduction, to find a research gap, which could be the aims of manuscript. The aims will be achieved by several objectives. To gain the objectives, the appropriate methods will be followed. The data/ results will be presented to achieve each objectives, finally, the aims of the manuscripts.

Using personal pronoun 'we', 'our' very frequently through the whole manuscripts, which is uncommon in international journal. It requires to edit through the article.