Reviewer – 2

General Comment: The results of the research are expected in advance: a salinity exceeding 4dS m-1 will cause a significant effect on physiological characteristics and decrease in productivity in addition to affecting the quality of soil and groundwater. However, please answer the comments below and clarify some of the queries.

In Abstract:

- Starting with a short introduction of about two lines about the importance of study, for example, sugar cane, salinity, etc. Then write the study objective.

Reply: Changes have been made in the MS

- The abbreviation of displaying the results in the abstract in order to leave room to add a summary of the results of the study with the recommendation, which is not present in the current abstract.

Reply: Added in the MS

In Introduction:

- Line 53: Clarify this amount of water, 550 mm, per plant, per unit area, or during the period of the formative stage, and how long it lasts.. Explain that!!

Reply: For obtaining good growth of sugarcane plants, 550 mm water/ha is required

- Add in the introduction a paragraph on the effect of salt on the physiological characteristics of sugar cane, supported by the appropriate references. As well as another paragraph on the effect of salt on the gas exchange traits.

Reply: Changes have been made in the MS

Materials and Methods:

- Line 71: It is written 3 replications. and this is different from what is written in Abstract (5 replications) in line 15!! Which one is correct?

Reply: Revised in the MS

- Are the developed genotypes used in the study compartmentalized in terms of their salt tolerance? Any Sensitive - Medium Sensitive - Salt Tolerant

Reply: No

- What is the date of planting plants in pots? Where did you put the pots? Is it in direct field conditions or within a greenhouse, especially at the beginning of the experiment?

Reply: Planting was done during first fortnight of April. Pots were placed directly in the field conditions.

· Add in table the physical specifications, chemical analysis and the percentage of organic matter in the soil that were placed in the pots, of course, before the start of the experiment.

Reply: Added in the MS

· Are the pots perforated from the bottom?

Reply: Yes, to collect the lichgates time to time for monitoring salinity.

· The pots are supposed to be perforated: What about the excess water that filters from the pots? Was it taken, and the salinity measured in it to find out how much salinity remained in the soil or was absorbed by the plant, which led to the different effects on the plant and the soil?

Reply: Yes, we have collected the lichgates time to time for monitoring salinity.

· Important information about irrigation:

Reply: Based on potential evapo-transopiration, irrigation was given. To fully saturate the pots initiallly 13.2L of water was given and afterwards 7.5 L given at weekly interval during summer season and fortnight interval during winter season.

· How was the irrigation done manually?

Reply: Based on potential evapo-transopiration

· How often was the irrigation and to what stage?

Reply: Based on potential evapo-transopiration, irrigation was given. To fully saturate the pots initiallly 13.2L of water was given and afterwards 7.5 L given at weekly interval during summer season and fortnight interval during winter season.

· What is the amount of watering per pot? How was it estimated?

Reply: Fifty kg capacity clay/porcelain pots filled with 40 kg soil (ECe 0.47; pH 7.8; field capacity 28% v/v) at bulk density of 1.45 g cc^{-1} which has ~ 39% porosity. Initially ~ 13.2 litre water (up to field capacity) was given in the pots and evaporation was noted through pan. During the entire study average period pan evaporation was 3 mm day^{-1} *i.e.* 21 mm $week^{-1}$.

· What type of salt is used?

Reply: Mixture of salts namely NaCl, Na_2SO_4, $CaCl_2$ and $MgCl_2$ was used for saline water preparation.

· How was the salt solution prepared?

Reply: Salt solution was prepared in 1:1:1:1 (NaCl, Na_2SO_4, $CaCl_2$ and $MgCl_2$) for making 3:1 chloride dominated

· When was yield estimated? At what stage of the plant?

Reply: at harvest stage

· We want an illustration of the experiment in which the pots are clearly visible? a picture at the beginning of the experiment and another picture at the end. There is no need to add these images in the body of the text in the study.

Reply: Added in the MS

In Results:

· Put the results in paragraphs, not narration in this way, for easy access. Example: 3-1 Effect of irrigation water salinity on soil

3-2 Effect of irrigation water salinity on genotypes survival rate Etc.……

Reply: Changes have been made in the MS

· Why was the control not added to figure 2 for comparison?

Reply: Figure 2 is showing the percent change in plant survival with respect to control

· In Table 1, Cane length is not a physiological trait, but a morphological trait! Better to put it in a separate figure. On the other hand, how was the plant length measured?

Reply: Changes have been made in the MS

· Did branches arise at the bottom of the plant? Was it taken into account when measuring height?

Reply: Yes, we had taken care of these. We measured plant height of all the millable cane and and overall average was given in the MS.

In Discussion:

· Add a discussion of the results of the survival rate of sugarcane due to the effect of salinity as well as the effect of salinity on productivity (yield).

Reply: Added in the MS

· It is preferable to mention and discuss the environmental impact of the use of salt water, despite the tolerance of some genotypes to salinity.

Reply: Changes have been made in the MS

In Conclusion:

· Add a recommendation at the end of the summary conclusion.

Reply: Added in the MS