Review Form 1.6

Journal Name:	**International Journal of Plant & Soil Science**
Manuscript Number:	**Ms_IJPSS_84033**
Title of the Manuscript:	**Molecular characterization of different varieties of rice (Oryza sativa L.) using SSR markers**
Type of the Article	

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Compulsory REVISION comments		
Minor REVISION comments	The paper should be corrected very carefully especially according to language style. Some typos need to be corrected. The work is impressive, however, some points deserve to be clarified before publication. I recommend the publication with minor revisions as follows: General comments On an average, 2 alleles per primer and 1.94 polymorphic…. On average, 2 alleles per primer and 1.94 polymorphic. diverse parents for future breeding programme for rice improvement…. diverse parents for the future breeding programs for rice improvement. based on polymorphic banding pattern for genetic diversity analysis…. based on polymorphic banding patterns for genetic diversity analysis. India is considered as big diversity centres for… India is considered a big diversity center for. intra specific levels… intraspecific levels. genetically related cultivars is reduction of the hereditary establishment… genetically related cultivars is the reduction of the hereditary establishment. Identification of diversity at genetic level is… Identification of diversity at the genetic level is. It contributes in the establishment of genetic affiliation… It contributes to the establishment of genetic affiliation. This identification also helps in selection of… This identification also helps in the selection of. proved their efficiency in rice for estimation of genetic… proved their efficiency in rice for the estimation of genetic. Several researchers have used SSR markers in molecular diversity analysis of rice…. Several researchers have used SSR markers in the molecular diversity analysis of rice. genetic diversity analysis at low cost (Hamblin et al. 2007)…. genetic diversity analysis at a low cost (Hamblin et al. 2007). weight size in the form of binary matrix… weight size in the form of the binary matrix. Rice is the most important cereal crop that has been referred as global grain because of its use as prime staple food…. Rice is the most important cereal crop that has been referred to as a global grain because of its use as a prime staple food. The rising demand, saturation of cultivable field and climate change… The rising demand, a saturation of cultivable fields and climate change. In the present investigation, initially 17 primers were screened… In the present investigation, initially, 17 primers were screened. on the basis of sharp and clear banding pattern…. on the basis of a sharp and clear banding pattern. The band size of amplified product ranged from 100bp-300bp…. The band size of the amplified product ranged from 100bp-300bp. Out of these amplified loci 33 were found to be polymorphic (94.11%)…. Out of these amplified loci, 33 were found to be polymorphic (94.11%).	

	Average numbers of band per primer was 2.00 while, average numbers of polymorphic band per primer was 1.94…. The average number of bands per primer was 2.00 while, the average number of polymorphic bands per primer was 1.94. PCR amplification gave good and clear banding profile… PCR amplification gave a good and clear banding profile Brondani (2006) observed an increasing GC content of the primer with increased number of bands… Brondani (2006) observed an increasing GC content of the primer with an increased number of bands. Fritsch et al. (1993) also reported that the importance of the GC content of primers on yield of PCR amplified products…. Fritsch et al. (1993) also reported the importance of the GC content of primers on the yield of PCR amplified products. During the present investigation similar type of result was obtain for varietal… During the present investigation similar type of result was obtained for varietal. According to Jaccard's similarity coefficient the highest similarity 97% was found between MTU1011 and SONAMRICE and lowest (25.7%) between KATKIRICE and CHANDRAHASNI…. According to Jaccard's similarity coefficient, the highest similarity 97% was found between MTU1011 and SONAMRICE and the lowest (25.7%) between KATKIRICE and CHANDRAHASNI. 25.7-97% indicates higher level of diversity among rice varieties…. 25.7-97% indicates a higher level of diversity among rice varieties. PIC value evaluated based on the specific locus/marker…. the PIC value was evaluated based on the specific locus/marker. higher PIC scores and high number of alleles and lowest PIC value… higher PIC scores and a high number of alleles and the lowest PIC value. in different sets of rice varieties which was closer to the result as previous studies…. in different sets of rice varieties which were closer to the result as previous studies. The major group contained 44 varieties and minor group containing only one variety KATKIRICE. Major group further classified into two sub-groups 'A' and 'B'. Sub-group 'A' contained 37 varieties whereas sub-group 'B' contained 7 varieties…. The major group contained 44 varieties and the minor group contained only one variety KATKIRICE. The major group is further classified into two sub-groups 'A' and 'B'. Sub-group 'A' contained 37 varieties whereas sub-group 'B' contained 7 varieties. In this analysis three groups were divided into group 'A', group 'B' and group 'C'. Group 'A' holding 26 varieties…. In this analysis, three groups were divided into group 'A', group 'B', and group 'C'. Group 'A' holds 26 varieties. Three dimensional scaling of 45 rice varieties also revealed similarity conferring principle component… Three-dimensional scaling of 45 rice varieties also revealed similarity conferring principal components. In addition, some of these markers can be used for marker assisted selection (MAS) for genetic improvement of rice…. In addition, some of these markers can be used for marker-assisted selection (MAS) for the genetic improvement of rice.	
Optional/General comments		

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PART 2:

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

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