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PART 1:

Journal Name:	British Microbiology Research Journal
Manuscript Number:	**MS: 2012/BMRJ/2302**
Title of the Manuscript:	**Population Variance and Diversity of Endophytic Bacteria in Soybean (Glycine max (L) Merril) Cultivated in Vertisol.**

General guideline for Peer Review process is available in this link:
(http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline)

- This form has total 9 parts. Kindly note that you should use all the parts of this review form.

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PART 2: 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	The MS entitled "Population variance and diversity of endophytic bacteria in soybean (*Glycine max* (L) Merril) cultivated in vertisol" authored by Dalal and Kulkarni describes how endophytic population get influenced by different developmental stages of soybean plants. I have a number of comments on the MS that should be addressed before it can consider for publication. **Major Comments** 1. The importance of soybean plants/cultivation should be addressed in Introduction part 2. What is the specialty of collecting plant samples cultivated in vertisols? Any added advantages that this type of soil may offer to endophytic bacteria or what else? 3. Results should discuss a bit more in 'Results and Discussion' section in relation to previous works with proper citation 4. Seems the statistical analysis (Tukeys tset) in Table 1 did not perform properly!	

Minor REVISION comments	**Minor Comments** ***Title*** Line 3-4: it can be modified to "Population dynamics and diversity of endophytic bacteria associated with soybean plants (*Glycine max* (L) Merril)" ***Abstract*** Aim: this sentence should re-write as the meaning is not clear Place and duration of study: …the cultivation period of June-December 2010 Methodology: this part needs to be shorten. Samples represent each growth stage viz., vegetative (V1-V5) and reproductive (R1-R8) were collected Results: the first sentence should move as second sentence, i.e., before "The endophytic isolates were found……..." Conclusion: re-write the first sentence. remove 'the' before soybean ***Introduction*** Line 18: remove ',' Line 25-28: split and re-write the sentence Line 38: ….as well as interaction and …. Line 39: within host plants is important…. ***Materials and Methods*** Line 46: period of June-December 2010. The growth stages of soybean were identified….	

	Line 47-48: check grammar Line 55: Sterility checks !!! Line 57: growth on nutrient agar (!) media incubated for 6 days. At what temp? Line 59-62: split the sentence and re-write Line 61-62: …glass rod onto nutrient agar medium supplemented…. Line 63: "Population densities"…….microbial or bacterial? From Table 1, seems bacterial! Line 64: write like this……"From total culturable population a total of 1611 distinct bacterial morphotypes were isolated and identified up to genus level according…..characteristics". ***Table 1*** Line 69: detail the table title Please do the statistical analysis for V1-V5 and R1-R8 separately, and discuss in 'Results and Discussion' section accordingly ***Results and Discussion*** Line 78-85: move this part after "3.2 Variation of endophytic bacterial population" part Line 78: A total of 1611… Line 80-81: this statement is not true as per Fig 1 Line 81-82: It was also noticed roots as a primary site of entry, showing maximum population followed by leaf and stem, respectively Line 86-87: re-write Line 89: as plant senescenced.	

	Line 89-90: "The maximum endophytic population was recorded for vegetative stage at V5 (3.49…) followed by V4 (3.41…), and for reproductive stage at ……..followed by……. Line 94: remove here, and mention in M & M section Line 94-97: Our findings are in congruence with Zinniel et al., 2002, who reported that the population size of endophytic bacteria in agronomic plants including soybean varied between 0-6.0 log10 CFU/sample tissue. Line 98: to be influenced by soybean growth phase and type of tissue sampled. Line 100: ….including developmental stages, environmental conditions and geographical location of experimental site (Kuklinsky-Sobral et al., 102 2004). Line 102: Moreover, genotype Line 103: the host. Conn and Franco, 2004 reported that… Line 106-108: As plants mature all the nutritional requirements for bacteria are optimum and a stable endophytic population is obtained. Line 109-110: delete Line 118: required citation missing ***Conclusion*** It appears from the present study that the endophytic population is influenced developmental stages of soybean plants. An	

	understanding of the factors that affect population dynamics of endophytic bacteria is necessary to achieve a consistent application of these microorganisms in relation to maintain plant health and biocontrol. Moreover, research on endophytic bacteria offers an innovative and enlivening opportunity for the discovery of novel endophytic bacterial strains with biotechnological utility.	
Optional/General comments	Min or minutes, Fig or Figure, References cited in text, and others! Check with journal style	

Note: Anonymous Reviewer