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Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	Ms_AJEA_22538
Title of the Manuscript:	Impact Of Preceding Legumes And Nitrogen Fertilizer On Soil Fertility And Growth Attribute Of Maize
Type of the Article	Original Research Paper

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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:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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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	Plagiarism report: 31.3% (Introduction, Materials & Methods , Results & Discussion) <table border="1"> <thead> <tr> <th>Line No.</th> <th>Correction Required (All with reference)</th> </tr> </thead> <tbody> <tr> <td>Title</td> <td>Delete Soil fertility and</td> </tr> <tr> <td>New title</td> <td>Impact of preceding legume and Nitrogen levels on Maize</td> </tr> <tr> <td>Abstract</td> <td>Provide any conclusion from your findings</td> </tr> <tr> <td>31</td> <td>Mention production area (ha)</td> </tr> <tr> <td>33</td> <td>Add N,P & K ratio of utilization</td> </tr> <tr> <td>34</td> <td>Whether it is partial factor productivity?</td> </tr> <tr> <td>35</td> <td>these crops= cereals</td> </tr> <tr> <td>37-39</td> <td>It is copied from Katyal et al ., 2001 hence Rewrite</td> </tr> <tr> <td>45</td> <td>Reference article which provided not dealt on legumes but specific to Chickpea Hence, provide new reference which on legumes review article on green manuring</td> </tr> <tr> <td>49-51</td> <td>After reading of (Singh et al.,1991) Rewrite sentence as per reference</td> </tr> <tr> <td>66-67</td> <td>Provide variety name (Mung bean, ,Fodder Cowpea , Grain Cowpea, Sesbania), Sowing and harvesting date</td> </tr> <tr> <td>66-71</td> <td>Three times repated hence delete</td> </tr> <tr> <td>72</td> <td>How did you calculate biomass of sesbania?</td> </tr> <tr> <td>73-74</td> <td>Provide clearly Spacing of legumes, Maize? Is there any Space between Subplots? Hence</td> </tr> </tbody> </table>	Line No.	Correction Required (All with reference)	Title	Delete Soil fertility and	New title	Impact of preceding legume and Nitrogen levels on Maize	Abstract	Provide any conclusion from your findings	31	Mention production area (ha)	33	Add N,P & K ratio of utilization	34	Whether it is partial factor productivity?	35	these crops= cereals	37-39	It is copied from Katyal et al ., 2001 hence Rewrite	45	Reference article which provided not dealt on legumes but specific to Chickpea Hence, provide new reference which on legumes review article on green manuring	49-51	After reading of (Singh et al.,1991) Rewrite sentence as per reference	66-67	Provide variety name (Mung bean, ,Fodder Cowpea , Grain Cowpea, Sesbania), Sowing and harvesting date	66-71	Three times repated hence delete	72	How did you calculate biomass of sesbania?	73-74	Provide clearly Spacing of legumes, Maize? Is there any Space between Subplots? Hence	
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		mention clearly
81-82		Repeated hence delete
82-83		When did you observed germination, Plant height?
88-89		Provide standard reference for soil analysis.
96-137		Rewrite the Results
96-137		Not found any discussion. Hence Write your discussion and substantiate that with any previous work
122		Lopez et al., 2007 reference missing
Table 1 & 2		Kindly change as per Split plot Design
		Provide new table which contain three column 1. Initial Soil Analysis preceding legume 2. After legume 3. After Maize

Overall 68.7% unique

Introduction 48% Unique

Cereal based cropping systems are predominantly followed-
Plagiarized
and for ensuring food security. Previously balanced fertilization-
Unique
high levels of productivity. However, with the passage of- **Unique**
and increasingly higher doses of nutrients are required-
Plagiarized
This situation is associated with deteriorating fertility-
Unique deficiencies including those of micronutrients. Organic-
Unique
organic matter build-up also favor sustainable productivity-



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	Plagiarized a useful means to sustain organic matter content and thereby- Plagiarized and increase nutrient availability. Organic manuring by- Unique mulching or green manuring has declined over the years due- Plagiarizedfor seed, fodder or green manure helps in sustaining the- Plagiarizedsoil fertility through nutrient cycling (Herridge et al.,1995).- Plagiarized of 70–80 days available after the harvest of wheat till- Uniquebe utilized by short duration legume crops for enhancing- Uniquemanuring. Green manuring with annual leguminous crops like- Unique not only for realizing potential yields but also for N economy- Plagiarizedmungbean as well as cowpea have direct value in human diet- Plagiarizedwhen their residues with nodules are incorporated into the- Plagiarized quite possible to reduce the reliance on synthetic N fertilizers- Unique crop production. In fact, legume-based systems are likely- Plagiarizedsystems. There are few studies quantifying the relative- Plagiarizedprofitability and soil fertility in cereal based cropping- Plagiarized the immediate and residual effects of legumes on increasing 65% Unique Materials and method The experiments were conducted at The Agronomy Research- Plagiarized Summer legumes-maize cropping pattern was followed for the- Unique gap (land available after wheat harvest till maize sowing)- Plagiarized used for grain purpose and cowpea was used for fodder purpose.- UniqueA fallow was included in the experiment as control. The- UniqueSesbania (green manure) and fallow land. After the harvest- Uniquecowpea and Sesbania were sown in the first week of May	
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	following- Unique was incorporated into the field with a disc harrow in early- Unique previous legumes experiment was split into four sub plots- Plagiarized sown with four levels of N fertilizer (0, 90, 120 and 150- Plagiarized urea in two equal splits, half each at sowing and 30 days- Plagiarized was applied to maize at sowing. For legume's experiment- Unique was used. A plot size of 5 m x 16 m was used. For maize- Unique was split into four plots to accommodate four levels of- Unique The data was recorded on emergence m-2 81 by counting total- Unique randomly selected rows in each sub plot and then converted- Unique as the distance from base to the tip of the plant of five- Plagiarized of five randomly selected ears was counted and averaged.- Unique soil samples were taken from different position in each- Plagiarized of different physiochemical properties of soil including- Plagiarized sampling was done after the harvest of legumes. Statistical- Unique variance technique appropriate for RCB design for legume- Unique maize and wheat experiments using Genstat discovery software.- Unique 93% Unique Results and Discussion Soil parameters after legumes experiment Soil pH, total- Unique were not significantly affected by preceding legumes (Table- Unique Similarly, higher soil TSS and EC were recorded in plots- Unique in plots previously sown with Sesbania. Emergence m-2 Statistical- Unique legumes (L) had nonsignificant effects on emergence m-2103- Unique emergence was higher in N treated plots as compared to control.- Unique or kept fallow resulted in higher emergence m105 -2 while- Unique (Table 2). Plant height (cm) Different nitrogen levels significantly- Unique cropping system remained not significant (Table 2). The- Unique increased as nitrogen level increased from 0 to 150 kg ha-10- Unique was applied at the rate of 150 kg ha-1 followed by N application-	
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	Uniqueshort stature plants. This increase in plant height could- Uniquegrowth the results are in agreement with the finding of- Unique with increasing nitrogen fertilizer. Ear weight (g) Ear- Plagiarized and legumes (Table 2). The N x L interaction was not significant.- Uniquelevel increased. Plots fertilized with high N (150 kg ha-1)- Uniquepar with nitrogen application at the rate of 120 kg ha-1- Unique line with Lopez et al. (2007) reported that nitrogen application- Plagiarized weight was higher in plots previously sown with cowpea or- Uniqueof preceding legumes which might increase the availability- Uniqueare also reported by Sharma et al., (2009) that Sesbania- Uniqueeffect on maize yield and yield attributes. Grains ear-1- Uniqueanalysis of the data indicated that nitrogen levels significantly- Uniquewas not significant. Similarly, N x L interaction remained- Unique0 to 120 kg ha-1. Higher grains ear-1 were found in ears- Uniqueha-1 which was at par with plots fertilized with N at the- Uniqueear-1 . All N amended plots resulted in higher grain ear-1- UniqueN amended plots increase in dry matter accumulation and- Unique 100% Unique Abstract An experiment on maize crop with preceding legumes and- UniqueAgronomy, the University of Agriculture, Peshawar during- UniqueThe summer legumes were sown in the summer gap (land available- Uniqueand green manure purposes. Mungbean for grain and cowpea- Uniqueusing fallow as control. After legumes experiment each plot- Uniqueof N (0, 90, 120 and 150 kg ha-1) for maize. Data was recorded- UniqueSoil parameters after legumes experiment i.e. pH, total- Uniquecarbonate (CaCo3) were not significantly affected by preceding- Uniquelower in plots previously cultivated with mungbean. Similarly,- Uniquesown with mungbean while lower soil TSS, CaCo3 and EC was- Uniquewere significantly affected by nitrogen levels except emergence- Uniquegrain ear-1	
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	and ear weight. Taller plants were produced- Unique followed by N application of 120 kg ha⁻¹ while control plots- Unique high N (150 kg ha⁻¹) had significantly higher ear weight- Unique ha⁻¹. Higher grains ear-1 were found in ear collected from- Unique at par with plots fertilized with N at the rate of 150 kg- Unique 100% Unique Conclusion It is concluded from the above results that summer legumes- Unique losses, reduce fertilizer cost and thus have to improve	
<u>Minor</u> REVISION comments	NA	
<u>Optional/General</u> comments	NA	

Reviewer Details:

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