



SDI Review Form 1.6

PART 1:

Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	MS: 2012 IRJPAC 2600
Title of the Manuscript:	A comparative study on the use of Calcium Acetate Lactate, Calcium chloride and Acidic Ammonium Acetate- Ethylene Diaminetetra acetic acid (AAAc-EDTA) for the quantification of extractable, P, K and Mg from acidic soils.

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 <i>(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)</i>
<u>Compulsory</u> REVISION comments	Title. <u>'quantification'</u> Line 17. Include R² values and significance (p) levels for relationships quoted. Line 27. Explain acronyms when first used, e.g. ICP. Line 30. Not clear, explain. Line 39 - 41. Explain A-L, reference (Egner et al) not quoted properly or listed. Give original reference for AB-DTPA and Mehlich 3. Line 38 – 48. As line 17 Line 74. What is the air drying temperature? Line 76 – 88. Separate extraction and measurement procedures. Extraction method, soil:solution ratio, extracting time, pH of extractant, composition and reference (for all extractants used) in table format is clearer. This could also apply to the range of extractants and response criteria listed in the introduction. Give references for all measurement methods. Line 123 – 125. The fact that CAL and AAAC-DTPA are both acetate based and of similar pH is not mentioned. Line 136 – 179. Confusion of statistical terms, coefficient of correlation (R) and coefficient of determination (R²)?	



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	R^2 is shown in the graphs and R is quoted in the text. If R is correct, variation in CAL only accounts for 52% ($R^2 = 0.52$) of change in AAAC-EDTA. The P relationship is probably improved by a few high values. Plot without these data to show it is not unduly influenced. Test the robustness of the relationship by plotting separately samples from the different sampling areas, soil types etc. Similar for K and Mg. Do the data meet the assumptions of homogeneity of variance and normal distribution? Show significance levels (p) for all correlations. Line 196. 199. Not clear? Line 203 – 204. Different significance levels are quoted in 'line 190' but not shown in table 2 (all $p \leq 0.01$). Introduction cites link between pH/organic carbon and nutrients, but the conclusion uses absence of this relationship in this study to imply AAAC-EDTA is the best method for P, K and Mg. Not enough evidence for this conclusion. What are the interpretation criteria for each nutrient with AAAC-EDTA?	
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<u>Minor</u> REVISION comments	Line 17. Improve English in abstract, e.g. too many ‘method’ and ‘compared’ in first sentence. Line 53. delete ‘content’ after humus. Line 60. Delete either ‘extracted’ or ‘of extraction’, do not use both in the same sentence. Line 68 – 70. Over use of ‘rubber estates’, once is enough. Line 103. Typo ‘be attributed’. Line 128. Typo ‘analysis of variance’. Line 195. Insert ‘was shown by’ Staugaitis etc. Line 199. Typo ‘the relationship of extractable K’. Line 209. Typo ‘amounts of K’ not levels.	
<u>Optional/General</u> comments	English needs general improvement. Do the authors have other measured parameters that could be used, e.g. soil types, texture etc to compare different groups within the study? Caution is always advised when looking at correlations alone when comparing soil methods. Authors need to cite more published studies between these extractants and with crop uptake/content, giving R² values and significance levels.	



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