



SDI Review Form 1.6

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_39621
Title of the Manuscript:	Feasibility and economic risk of programmed pruning cycle in Arabica coffee
Type of the Article	Original Research 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:

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



SDI Review Form 1.6

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	1- The introduction lacks the background information on the programmed pruning. It is to be very clear to the reader to understand it. 2- Specifying Monte Carlo method applied 3- Reviewing some of variables in sensitivity analysis eg land, land price cannot be specific to type of pruning. 4- Description of Sources of data is lumpy and not transparent. The author has not explained how it was possible to figure out the duration of the pruning 5- The description of risk analysis is somehow redundant. The author could be able of generating NPV-CDF without undertaking economic analysis of important variables as per the explanation made. Consider recasting or to be matched in explanation on how to conduct NPV. It is explained that the risk analysis of important of variables were done but the results presented is for NPV. What was the role of such analysis? For improved analysis the author may refer to the dominant procedures for assessing the analysis. The author may review: Richardson, J.W., K.D. Schumann, and P.A. Feldman.2008. <i>Simetar: Simulation and Econo-metrics to Analyze Risk</i>. Simetar Inc, College Station, TX. 6- Justification of the importance of this study is somehow not justifiable. ``The second management refers to the programmed pruning cycle for Arabic coffee, in which the plants are renewed without zero harvest. Renewals, in this case, occur after the 7th, 14th and 21st years``. It is very hard to continue undertakings without understanding its economic viability for such long time. Otherwise the author must specify that the study applied ante evaluation. If it is ex-post, then the justification is not justifiable. 7- As it is indicated in the discussion, the traditional pruning is rated at 3.6% while the programmed is 15.3% yet the later has the higher NPV. If it is true, then the authors must recheck the background and the justification. The different is too huge to enable every farmer to shift to the programmed pruning. Provide the clarity on the subject matter. 8- Data to be included in cash flow are known. The author explains about ``cash flows technical coefficients``. What are these coefficients? What were the sources of these coefficients? Which methodology(ies) applied to compute these coefficients? The author must explain this clearly. 9- The author must sure the term economic feasibility and economic viability are linked well.	1- More detailed information on the pruning cycle programmed has been added. 2- The Monte Carlo method was better explained and some work using this method was added. 3- Land, land price, product sales, and other variables employed are not specific to one type of pruning. These variables are the same in both types of pruning and are repeated in each type of pruning in the same way. 4- It was better explained the handling of each pruning in the text. However, this type of information, as described in the text, is done through interviews with farmers and researchers. In addition, part of the data, as described in the article were obtained from a reliable database of a local research center, CEDAGRO. 5- Changes were made to the text on risk analysis. A more comprehensive description of the sensitivity and risk analysis was given in the text, evidencing its importance and application. The results presented are not for NPV, they analyze the accumulated NPV probability to be negative with the change of the values of the most economically important items. The greater the cumulative probability of NPV being negative, the greater the economic risk. In programmed cycle pruning there is no probability of negative NPV occurrence, so the risk is zero. 6- The procedure was better explained in the text. Coffee is a perennial plant, and in study environments they remain viable up to 24 productive years. In programmed pruning there is no zero harvest and it is held every 7 years. During this period the plants continue to present their productive potential, due to the changes made in the plants due to the programmed pruning. 7- Greater clarity was provided on the subject, which better explains the fact that there is a great difference between the NPVs of the two pruning systems, especially with regard to the technical part of implantation, and that producers using mechanization live in another reality. 8- It was better explained. However, this type of information, as described in the text, is done through interviews with farmers and researchers. In addition, part of the data, as described in the article were obtained from a reliable database of a local research center, CEDAGRO 9- OK!



SDI Review Form 1.6

<u>Minor</u> REVISION comments	1- English language must be maintained throughout 2- Consider to delete justification of the study in the abstract 3- Explanation on why decided to ``an unfavorable 10% variation`` in sensitivity analysis is required. Why 10% and why unfavorable? 4- The author has to use the same discount rate to compare the performance of the systems to make easy comparison. 5- In the discussion, the author must show the link between NPV and IRR, why the author used the same value; 3.61 and 15-30% to explain both indicators? This might bring problems to some readers.	1- The guideline of the evaluator was unclear. 2- Ok! 3- In this case, 10% represents the rate of return on capital applied with monetary correction in the savings account. Lower rates of this value are not feasible since it allows the investment in the savings account. This has been added in the text. 4- The same discount rate (10%) was used in both systems. 5- The internal rate of return (IRR) is calculated through the NPV. The IRR is different in each project, since the NPV changes. The higher the IRR, the more profitable the project is. This information was better highlighted in the text.
<u>Optional/General</u> comments	Much of the references are not in English making hard to follow	In this case, I do not know how to proceed, since the works cited are from Brazil. Anyway, I changed the language of the references to English.