

SUMMARY

The titled investigation: *Study by the Impacts caused by the application of a Project of Biointensive Agriculture guided toward the Alimentary Security in Nueva Loja. Lago Agrio - Sucumbíos*, was carried out with the purpose of giving to know the caused impacts, in colombian displaced and ecuadorian families, for a project of agriculture biointensiva, executed during the period October 2002 - December 2004.

The objectives outlined in the present investigation were:

1. To carry out a diagnostic participative of the current biophysical and socioeconomic situation of the project of biointensive gardens.
2. To evaluate the effectiveness of the application of the biointensive method cultivation in the agricultural production and in the improvement of floors in the biointensive gardens.
3. To identify the environmental and social impacts caused as a result of the application of the productive activities of the biointensive agriculture
4. To analyze the relationship benefits cost obtained starting from the family investment and the production of the biointensive gardens.

The applied methodology was developed in two stages: the first stage, executed by means of the gathering of primary sources and the application of diagnostic participative and gathering of field data. The second stage, it was executed by means of the gathering of field data with the help of analysis of floors, inventories of species, diagnostic, interviews in those that the effect was evaluated caused by the techniques of the method biointensivo in: the improvement of floors, the productive yield, the increment of the diversity, the investment of family manpower and the environmental and social impacts caused by the establishment of the project of agriculture biointensiva in the family and community environment.

The main results were the following ones:

An increment was identified in the content of organic matter in the floors of the biointensive gardens: Pedacito de Colombia (9.18) and Esmeraldas Libre (9.19), while the gardens Familia de Cristo (4.70) and El Eden (5.11), the stayed in similar levels to those of the floor sample without cultivation.

The main identified farm practices in the biointensive gardens are focused in the improvement of the floor, the fertility and nutrition of cultivations, by means of the application of the techniques of biointensive cultivation

The inventory of useful vegetable species revealed a total of 181 species of useful plants distributed in 55 vegetable families, 12 use categories and a total number of 4293 individuals, the Index of Shannon (H') for the group of biointensive gardens it was of 2.85; while the gardens with more diversity of species for hectare were: Esmeraldas Libre (12300), El Eden (10750) and Pedacito de Colombia (10705.9) in areas understood among 85 to 120 m².

The families dedicate the production of the biointensive gardens in 3 categories: family consumption, exchange and commercialization. The benefits obtained in the orchards were: the training, the development of integration experiences, socialization, cooperation and participation of the families in direct relationship

with the community, allowing the integration of local families and displaced in the execution of the project

Analyzing the results of the manpower percentage invested by gender in the biointensive gardens was obtained that the woman has a bigger participation in the activities programmed in her maintenance with investments of time of 8.59 h/month, followed by the men with 6.47 h/month, which collaborate in the activities of more effort and risk like the phytosanitary control

The main identified positive impacts and attributed to the application of the techniques of the biointensive cultivation, they were: recycle of organic residuals, improvement of the physical and chemical characteristics of the floor, increment of cultivation areas, increment of diversity in animal species and vegetables.

With the project of biointensive gardens it was achieved the diffusion of the techniques and knowledge of the biointensive cultivation, to an average of 300 families, increasing the relationships and the invigoration of the capacity of community work for any activity organized by the executor organization.

The relationship revenues expenditures of the biointensive garden were of USD 4.16, with an investment of family manpower of USD 19.27 and an entrance of USD 23.43; the relationship B/C resultant was 1.22.

The resulting conclusions of the present investigation were the following ones:

It was classified as effective the action caused by the application of the biointensive techniques of cultivation identified in: the use and use of underemployed floors; the recycle of organic residuals; improvement of the properties of the floor; I increase in the vegetable diversity and the obtaining of high yields.

The social impacts obtained starting from the establishment of the project were: training, productions of healthy and nutritious foods, health, family well-being (place of distraction); integration and participation of displaced families and local in the activities developed in the orchard and administration activities at community level.

KEY WORDS: Method of biointensive cultivation, orchards biointensives, alimentary security, benefits, impacts.