CURRENT STATUS OF FRUIT PRODUCTION IN ECUADOR

Viera William\textsuperscript{1*}, Moreira Ricardo\textsuperscript{1}, Vargas Yadira\textsuperscript{1}, Martínez Aníbal\textsuperscript{1}, Álvarez Hugo\textsuperscript{1}, Castro José\textsuperscript{1}, Zambrano José\textsuperscript{2}

\textsuperscript{1}National Institute of Agricultural Research (INIAP). National Fruit Program. Eloy Alfaro Av. N350 and Amazonas. Quito, Ecuador
\textsuperscript{2}National Institute of Agricultural Research (INIAP). Research Department. Eloy Alfaro Av. N350 and Amazonas. Quito, Ecuador

Fruit area in the three regions of Ecuador covers about 163 000 ha (excluding bananas) and involves about 120 000 farmers. Fruit growing in the Coastal region is mainly for exportation (fresh and processed fruit), in the Highlands it is focused in the local market, while in the Amazon, with certain exceptions, are subsistence crops. The current problems for this agricultural sector is the low productivity due to poor management in the pre and post-harvest, limited technological generation, little use of fruit germplasm, lack of organization of producers and production chains, and productive loans (scarce and expensive). In response, the Fruit National Program of INIAP carry out research in different areas such as plant breeding, integrated pest management, crop management, pre and post-harvest management and fruit added value of tropical, Andean and Amazonian fruit. In tropical area, it works primarily with Mango (\textit{Mangifera indica}), citrus, guava, sour sop (\textit{Annona muricata}), passion fruit (\textit{Passiflora edulis}) and pineapple (\textit{Ananas comosus}); in the Highlands with cherimoya (\textit{Annona cherimola}) vasconcellas, tree tomato (\textit{Solanum betaceum}), blackberry (\textit{Rubus glaucus}), cape gooseberry (\textit{Physalis peruviana}), avocado (\textit{Persea americana}), peach (\textit{Prunus persica}), and fruit adapted to inter-Andean valleys such as naranjilla (\textit{Solanum quitoense}) and grape (\textit{Vitis vinifera}); in the Amazon with arazá (\textit{Eugenia stipitata}), copoazu (\textit{Theobroma grandiflorum}), borojo (\textit{Borojoa patinoi}), papaya (\textit{Carica papaya}) and naranjilla. Among the research activities can be mentioned the use of Paclobutrazol for faster flowering (40 days) and increasing fruit yield by 50%; morphological and molecular characterization of sour sop cultivars; evaluation of improved materials of passion fruit to increase yield (20 t ha\textsuperscript{-1}) and fruit quality; conventional breeding of tree tomato searching for \textit{Colletotrichum acutatum} resistance (disease causing up to 70% losses), use of \textit{Trichoderma} sp. to enhance the development of the blackberry plants, morphological and molecular characterization of avocado cultivars, management of peach production by the use of defoliants (Zinc Sulfate 2%) and sprouting inducers (hydrogenated cyanamide 1%), manual pollination in cherimoya, and control of fruit borer (\textit{Neolucinodes elegantalis}) in naranjilla (pest causing up to 70% losses). Generated technologies will allow designing strategies for integrated fruit production and increasing production by at least 10% of the current yield in the country.

\textbf{Keywords:} fruit, integrated production, pest, quality


\*Corresponding author Email: william.viera@iniap.gob.ec