ENERGY BALANCE ANALYSIS AND MECHANIZATION INDEX FOR GREENHOUSE VEGETABLE PRODUCTION IN SOUTHERN OF ALGERIA. AN OVERVIEW OF BISKRA PROVINCE

Keywords: protected vegetable, greenhouse, energy analysis, mechanization, Biskra

ABSTRACT

This work aims to determine the energy use for greenhouse vegetable production and to estimate the mechanization index in Biskra province (Algeria). The results revealed that the total energy required for vegetable protected production is 119.68 GJ per hectare where the infrastructure was the highest energy consumer followed by the electricity and fertilizers with a share of 22%, 20% and 19%, respectively. The energy use efficiency was calculated as 0.82, showing the inefficiency use of energy in the protected vegetable production. The entire farmers use least machinery labour energy in hectare compared to the human energy and the itinerary crop is similar for all greenhouses.