

IDENTIFICATION OF IMPACTS AND HUMAN HEALTH RISKS PRODUCED BY THE PRESENCE OF PESTICIDES IN THE ENVIRONMENT

II. HUMAN HEALTH RISKS GENERATED BY THE PRESENCE OF PESTICIDES IN PLANT PRODUCTS

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Abstract. *The risk to human health generated by the consumption of fruits and vegetables containing pesticide residues is evaluated applying the method recommended by the United State Environmental Protection Agency (USEPA), taking strawberries, apples, lettuce and potatoes for evaluation. In the case of the USEPA method, several age categories of consumers were considered, from 3 years to over 75 years in the acute case, and from 18 years to over 75 years age categories in the chronic case. The results showed that no risks to significant human health were identified. According to the results, it was found that most of the pesticides taken into account do not pose a risk to the population, except for a few cases in which the short-term and long-term evaluation values exceeded the limits at which the pesticides pose a risk to the population represented by children (especially those that have exceeded the maximum allowed residual limit).*

Keywords: acute exposure, chronic exposure, EFSA, health risk, USEPA method

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2. Impacts and risks of pesticides on human health

The impacts of pesticides on human health are highly variable. They may appear after a few days and are immediate in nature (acute effects) or may take months or years to manifest (chronic effects). In addition, certain people, such as children, pregnant women, or the elderly, may be more sensitive to the effects of pesticides than others [1, 2]. Pesticides can enter the human body through ingestion, inhalation or dermal contact, and the effects on human health due to exposure to pesticides depend not only on the degree of toxicity of the pesticides but also on the type and time of exposure [3].

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