ENVIRONMENTAL IMPACT RESULTING FROM INTERNATIONAL EXCHANGE OF BIOLOGICAL CONTROL AGENTS

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The dispersion of organisms from one to another country or even from one to another region within a same country, by the transport of goods and people or by natural factors may represent risks when those organisms can act as vectors of pathogens, as pests or parasite of domesticated animals or of man. A considerable increase in the international exchange of products, including agricultural products, has recently occurred as a result commercial international agreements. Given the way those agreements were established, especially the Agreement for the Application of Sanitary and Plant Health Measures (SPS Agreement), of the World Trade Organization (WTO), only adequately justified technical reasons may prevent the importation of goods from one country to another. The trade of noble products, whose prices justify aerial transportation, has also increased. If on one hand the more extensive exchange of agricultural products and the quicker transportation may, on the short term, result in lower prices and larger availability of options to consumers, on the other hand, they may also facility the quick dispersal of pests and, on the long term, the increase in cost of production and the consequent increase of prices to consumers. Interest for the biological control of pests has increased considerably internationally as an answer to adverse effects of pesticides to the environment and to human health, as well as an answer to international pressures for the conservation and sustainable use of biological resources, basic requirements of the Biodiversity Convention. International pressures strongly demand alternatives for pesticides, and the use of natural enemies for pest control is a promising alternative. Brazil is one of the few countries in the world that posses the so called "Mega biodiversity". Such high diversity offers an opportunity for the biological control of pests in the country as well as in other countries of the world. Natural enemies of pests have a considerable valued for sustainable agriculture; they commonly may replace or reduce the needs for the use of pesticides; they are important components of Ecological Pest Management (EPM). The use of classical biological control of pests has also increase considerable in the "Cone Sul" region, where introduced natural enemies can spread from one country to another, sharing the same ecosystem. The exchange of natural enemies always represent some degree of risk, given the possibility that undesirable contaminants may be introduced together with the natural enemies brought from a different region. Thus, the guarantee of safeness in each introduction is of utmost importance. In this sense, quarantine laboratories play a major role in plant protection programs, for having as one of their main objectives the reduction of the probability of introduction undesirable contaminants (hyperparasites, pathogens, predators and weed) to a new country. In addition to that, quarantine laboratories may provide assistance to biological control specialists in the whole process of the introduction and colonization of introduced natural enemies. "Laboratório de Quarentena Costa Lima", of "Embrapa Meio Ambiente", in Jaguariúna, State of São Paulo, has been providing valuable service to biological control in Brazil in the last 12 years. It has supported the activities of classical biological control in Brazil, not only in relation to the introduction but also in relation to the shipment of natural enemies abroad. Up to now, 241 introductions of beneficial organisms has been done into the country by that latoratory.

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