AGENDA OF CULTIVARS AND THE REDUCTION OF PESTICIDE USE IN BRAZIL

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ABSTRACT
The present work presents an important part of the 'State of the Art' scheduled for the preparation of a Master's Thesis being developed in the stricto sensu Graduate Program in Environmental Sciences at the Evangelical University of Goiás (UniEVANGÉLICA). The agenda highlights the importance of studying/employing cultivars for the reduction of pesticide use in Brazil. To achieve success, a deductive approach was employed, enhanced by bibliographic and documentary techniques, which allowed for the development of descriptive research.

Keywords: Brazil; Cultivars; Public Policy; Pesticides.

INTRODUCTION

The present work is a plan for the construction of a Master's Thesis that aims to analyze the advancement/creation - registration and use of cultivars in Brazil over the past ten years (2012-2022), which has greatly contributed to the reduction of pesticide use and the protection of the natural environment.

The research, in general, seeks to answer the following question – has the use of cultivars in Brazil contributed to the reduction of pesticide use in the last ten years (2012-2022), serving as a protective tool for the natural environment?

In this context, the present summary presents part of the 'State of the Art' that encompassed the 'Research Project', directed towards cultivars, intangible assets registrable in Brazil, a project that will serve as the scientific basis for the construction/elaboration of the Master's Thesis that will be defended on a future date in the stricto sensu Graduate Program in Environmental Sciences at UniEVANGÉLICA.

DEVELOPMENT

Federal Law No. 6,938/1981 presents the fundamental principles of the National Environmental Policy. The main objective is to ensure a healthy and ecologically balanced environment for the Brazilian population, both in the present and for future generations. The legislation seeks to promote sustainable

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development, reconciling economic progress with environmental preservation. In its Article 2, it is stated [...] "encourages technological research and the protection of environmental resources."

Regarding the point mentioned in the legislation, cultivars fit into this category; these are new varieties of plants from different species and plant genera that are intended for agricultural production and result from plant breeding programs. Regarding, points out Lamas (2020, online)

> [...] Cultivars or varieties of plants from different plant species are intended for agricultural production and result from plant breeding programs conducted by public and/or private research. Plant breeding programs are long-term endeavors, with the development of a cultivar taking eight to 12 years for annual species and 20 to 30 years for perennial species (fruit trees, vines, and forest trees).

The cultivars in Brazil are classified as intangible assets, movable property, as stipulated by Federal Law No. 9.456/1997. The legislation provides

> [...] The protection of rights related to intellectual property concerning cultivars is carried out through the granting of a Plant Variety Protection Certificate, considered a movable asset for all legal purposes and the only form of protection for cultivars and rights that may prevent the free use of plants or their parts for reproduction or vegetative propagation in the Country (BRAZIL, 1997, online).

Research conducted with the support of the Brazilian Agricultural Research Corporation (EMBRAPA) indicates that cultivar management has contributed to a nearly 50% reduction in the application of agricultural pesticides in Brazil. Regarding this, one of them is highlighted below.

> [...] Research from Embrapa shows that we could spend much less by adopting Integrated Pest Management for Soybeans (IPM-Soy). Embrapa research shows that we could spend much less by adopting Integrated Pest Management for Soybeans (IPM-Soy). Tests conducted on private properties show that reducing the use of agrochemicals can not only decrease the environmental impact but also increase the efficiency of pest control and boost the producer's income. [...] Integrated Pest Management is a technology that aims to keep the soybean ecosystem as close to balance as possible (EMPRAPA, 2015, online).

The study puts environmental protection and the promotion of cultivars in Brazil in dialogue. These have served in the last ten years (2012-2022) to reduce the use of pesticides in Brazil.

METHODOLOGY

To achieve success, a deductive approach was employed, enhanced by bibliographic and documentary techniques, which allowed for the conduct of the study and the development of descriptive research.

RESULTS

The work, applying the method, delivers to the academy, the faculty and students of UniEVANGÉLICA, the 'State of the Art' that contemplated the 'Research Project', a scientific basis established for the construction/elaboration of the Master's Thesis that will be defended at a future date in the stricto sensu Graduate Program in Environmental Sciences at UniEVANGÉLICA. The Dissertation will seek to establish the following hypothesis: the advancement/creation - registration and use of cultivars in Brazil, in the last ten years (2012-2022), has contributed to the reduction of pesticide use and the protection of the natural environment.

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