



National Program for Biobased Agricultural Inputs

MINISTRY OF
AGRICULTURE, LIVESTOCK
AND FOOD SUPPLY



National Program for Biobased Agricultural Inputs

The National Program for Biobased Agricultural Inputs, created through the Decree No. 10.375, of May 26th, 2020, addresses the growing demand from the farming sector and general society seeking alternative biobased inputs for agriculture and increasingly sustainable products. The program, in short also called Bio-inputs Program, was developed to meet innovation needs for crops and animal farming, aquaculture and forestry. This Program is a result of wide and long discussion process involving different actors of different supply chains from the Brazilian agribusiness. Led by the Brazilian Ministry of Agriculture, Livestock and Food Supply (MAPA), the program has a strategy committee formed by several representatives from the public and private sectors.

Worldwide, there is a growing demand for biobased inputs applied to various economic segments. In Brazil, in the last three years, there has been an increase in registration of biological products and there is constant introduction of national and imported new products into the market. There are new companies of different sizes, with both, national and international capital, producing biological inputs. In Brazilian farming systems, around 10 million hectares use biological pest control and at least 40 million hectares are grown with bacterial plant growth promoters, the inoculants.

Biological inputs bring annual savings around BRL 165 million through products for biological pest control, in addition to another USD 13 billion brought alone by biological nitrogen fixation on soybeans. These savings tend to increase in the coming years, especially due to market expansion of biobased products in Brazil and in the world. This is boosting sustainable tropical agriculture in Brazil and meeting the increasing demand from the farming sector and society.

By relating the dimensions of sustainability (social, environmental and economic) for developing inputs, we seek to improve perception and delivery of value for use of natural resources. This is the bioeconomy view, that in agribusiness promotes biobased, recyclable and renewable resources to foster sustainable development of its value chains.

The National Bio-Input Program proposes to expand and strengthen the segment of biobased agricultural inputs, offering the user technologies, products, processes, knowledge and information on a range of bio-inputs applied to soil nutrition; pests, parasites and diseases control for plants and animals. It also optimizes products and processes related to post-harvest and agribusiness as a whole. It is intended to consolidate a contemporary vision based on sustainability principles to increase productivity, strengthen production, add value to agricultural products and deliver value to the Brazilian society.

Bio-inputs

For the purposes of this Program, biobased agricultural input, or bio-input, is considered to be any product, process or technology of plant, animal or microbial origin, intended for use in the production, storage and processing of agricultural products. They act on crops, livestock, aquaculture and forestry systems, and bio-inputs positively interfere in growth, development and response mechanism of animals, plants, micro-organisms and derived substances interacting with their physical-chemical and biological products and processes.

Overall goal

Expand and strengthen the use of bio-inputs to promote the sustainable development of the Brazilian agriculture.

Strategic goals

- Propose a regulatory framework that encourages production and use of bio-inputs;
- Encourage science, technology and innovation to offer new technologies, products, processes, services, knowledge and information for the bio-input sector;
- Articulate credit and fostering instruments aimed at development, production and use of bio-inputs;
- Stimulate generation and dissemination of qualified knowledge and information on the development, production and use of bio-inputs;
- To stimulate training and capacity building on good practices of production, use and application of bio-inputs;
- Encourage implementation of bio-factories aimed at the production of bio-inputs; and
- Promote the formulation of policies, programs and plans in states and municipalities aimed at stimulating the use of bio-inputs.

Scope

It is the scope of the National Bio-Input Program to carry out actions in the following thematic areas:

1 Plant Production

Pest and disease control - bioacaricides, biofungicides, pheromones, bioinsecticides and other biological agents.

Soil fertility, plant nutrition and abiotic stresses - inoculants, biofertilizers, biostimulants and other biological agents.

Management of plant species - development, use and promotion of practices, processes, technologies and other biological agents applied to plant management.

2 Animal Production

Animal health - vaccines, herbal medicines, other immunogens and bio-based therapeutics.

Animal feed - probiotics, supplements, feed and other bio-based components for animal feed.

Aquaculture production - biological assets for feeding, health, effluent treatment and for other aquaculture applications.

Animal management - development, use and promotion of practices, processes, technologies and other biological agents applied to animal management.

3 Post-harvest and Processing

Post-harvest of products from plants - sanitizers, bioconservatives, packaging and other biological agents.

Processing products of animal and plant origin - sanitizers, biostabilizers, biofilms and other biological agents.

Guidelines

I - Promote strategic actions for development of alternatives for crop, livestock, aquaculture and forestry production that ensure sustainable products for Brazilians and the international community;

II - Encourage adoption of practices with the use of technologies, products, processes and services based on biological agents, through actions integrated with stakeholders from education, science, technology, innovation, extension, production and market, aiming to expand sustainable agriculture;

III - To value Brazilian biodiversity based on development and sustainable exploitation of genetic and natural resources from microorganisms, plants and animals; and

IV - Support development and implementation of sustainable production, distribution and use of bio-based inputs for organic crop, livestock, aquaculture and forestry farming.

Structuring Actions

- Carry out the strategic management of the National Bio-input Program;
- Establish the Strategy Council for the National Bio-input Program;
- Improve parameters of legal processes for registration of bio-inputs;
- Systematize knowledge and information on the state of the art on bio-inputs in Brazil;
- Encourage implementation of bio-input factories throughout the country, mainly in the North, Northeast and Central Brazil;
- Structuring the National Bio-Input Catalog;
- Articulate promotion and credit strategies for science, technology and innovation on bio-inputs;
- Stimulate market introduction of products, processes and technologies within the scope of the National Bio-Input Program;
- To establish the National Observatory for Bio-inputs;
- Encourage capacity building and development of handbooks on good practices for production, use and application of bio-inputs in partnership with public and private institutions;
- Encourage and support training on bio-inputs for technical assistance and rural extension agents and other professionals linked to agriculture;
- Support development of technologies for bio-inputs use in line with the National Policy for Solid Waste (PNRS); and
- Monitor and assess impacts of the National Bio-inputs Program.

Impacts

- Legal certainty for the bio-input segment;
- Expansion and strengthening the bio-input market;
- Creating jobs, improving income and quality of life for actors of the Brazilian agribusiness value chains;
- Expanding availability of agricultural produces and their derivatives bearing a sustainability differential in their production processes;
- Generation of sustainable technologies and promotion of innovation in the Brazilian agribusiness;
- Expanding added value of agricultural products and their derivatives; and
- Strengthening the Brazilian agricultural bioeconomics on the national and international agenda.

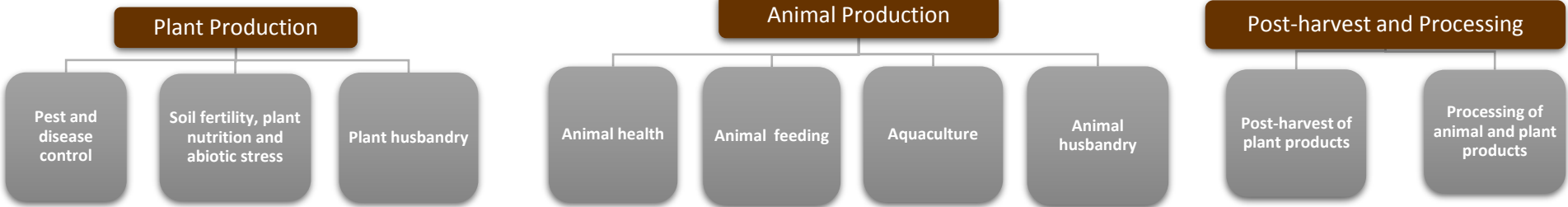
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Central Areas



Structuring Actions

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|---------------------------------------------------------|---------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------|
| Strategic management of the National Bio-Inputs Program | Program's Strategic Council | Legal framework | State of the art on bio-inputs in Brasil | Biofactories throughout the country | National catalog on bio-inputs | Credit and fostering mechanisms for bio-inputs |
| Introduction in the market | National bio-inputs observatory | Handbooks on good production practices for bio-inputs | Capacity building for technical assistance and rural extension services | Bio-inputs aligned with the National Policy for Solid Waste | Monitoring and impact assessment for the National Program for Bio-inputs | |