National Bioinputs Program
Brazil

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Context of Biological Inputs (Bioinputs)

• Sustainable Development and Bioeconomy
  • Sustainable Agriculture
  • Sustainable Development Goals (SDG) 2030
  • Reduction of greenhouse gases and global warming (due to petroleum-based nitrogen fertilizers production)
Some legal framework for bioinputs

• **Law n. 13,123, of May 20, 2015**
  • regulates the Convention on Biological Diversity, on access to genetic heritage, on the protection and access to associated traditional knowledge and on the sharing of benefits for the conservation and sustainable use of biodiversity
  • creates within the scope of the Ministry of the Environment the **Genetic Heritage Management Council - CGen**
• **Decree n. 8,772, of May 11, 2016** – regulates Law 13,123/2015 and creates the National **System for the Management of Genetic Heritage and Associated Traditional Knowledge – SisGen**
Some legal framework for bioinputs

- **Convention on Biological Diversity (CBD)** – 1992
  - Decreto n. 2.519, de 16 de março de 1998 - promulgated the Convention
- **Decree n. 4,339, of August 22, 2002** - National Biodiversity Policy
- **Decreto n. 4,703, de 21 de maio de 2003** - National Program for Biological Diversity (PRONABIO) and National Biodiversity Commission (Conabio)
- **Legislative Decree n. 70, of April 19, 2006** - International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)
Some legal framework for bioinputs

• **Law n. 6,894, of December 16, 1980** - inspection and supervision of the production and trade of fertilizers, correctives, *inoculants, stimulants or biofertilizers*, remineralizers and substrates for plants, applied for agriculture,

• **Law n. 6,938, of August 31, 1981**, creates the **National Environmental Policy**

• **Law n. 7,802, of July 11, 1989** – **Agrotoxics Law** (pesticides, and also biopesticides)

• **Lei n. 11.105, de 24 de março de 2005 (Biosafety Law)**
  • establishes safety standards and inspection mechanisms for activities involving genetically modified organisms - GMOs and their derivatives
  • creates the **National Biosafety Council – CNBS**, restructures the **National Biosafety Technical Commission – CTNBio**, regulates the **National Biosafety Policy – PNB**, creates the **Biosafety Information System – SIB**
Some legal framework for bioinputs

  - Main goal: reduction of external dependence through extraction of mineral deposits in national territory
  - Specific goals and actions of PNF 2022-2050 still to be detailed by CONFERT
DECREE N. 10,375, OF MAY 26, 2020

- **NATIONAL BIOINPUTS PROGRAM** - the aim of expanding and strengthening the use of bioinputs in the country to benefit the agricultural sector.

- coordinated by the Ministry of Agriculture, Livestock and Supply

13 competencies and attributions:

1) public and private partnerships,
2) national and international cooperation,
3) regulatory issues,
4) best practices manual,
5) innovation,
6) research and development,
7) national catalog,
8) national strategies,
9) funding,
10) National Observatory of Bioinputs
11) specific regulations
12) capacitating, training and diffusion
13) monitoring and evaluation
DECREE N. 10,375, OF MAY 26, 2020

• Bioinput
  • product, process or technology
  • of plant, animal or microbial origin,
  • intended for use in the production, storage and processing of agricultural products, in aquatic production systems or in planted forests,
  • which positively interfere with growth, in the development and in the response mechanism of animals, plants, microorganisms and substances derived from them and
  • which interact with products and physicochemical and biological processes.
DECREE N. 10,375, OF MAY 26, 2020

• Guidelines
  • To provide alternatives for agricultural and livestock production, economically viable and ecologically sustainable
  • encourage the adoption of sustainable practices with the use of technologies, products and processes developed from renewable resources
  • value Brazilian biodiversity, based on stimulating local and regional experiences in the use and conservation of genetic, microorganism, plant and animal resources
  • implement sustainable systems of agricultural production, distribution and use of inputs
DECREE N. 10,375, OF MAY 26, 2020

• Objectives
  • update the rules regarding bioinputs
  • promote good practices in the production and use of bioinputs
  • promote periodic campaigns to encourage the use of bioinputs
  • create and maintain a database with updated information on bioinputs
  • support business and small business incubation processes
  • encourage research, development and innovation in bioinputs
  • encourage the adoption of sustainable production systems that ensure the proper use of bioinputs
  • stimulating the production, processing, distribution, commercialization and consumption of bio-inputs
  • solid waste treatment to generate appropriate inputs for use in the production of bioinputs
  • reference specifications, by carrying out safety studies and agronomic efficiency tests for product registration
DECREE N. 10,375, OF MAY 26, 2020

• Strategic Council of the National Bioinputs Program
  • support strategic planning and program management
  • propose federal public initiatives for the development of bioinputs
  • propose the improvement of legislation
  • 13 members: 10 from government institutions and 3 from society organizations
    • external representatives may be invited to attend meetings
  • Three temporary working groups may be formed
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• expenses arising from the execution of the National Bioinputs Program will be charged to the budget allocations annually allocated to the entities involved,
Scope of the National Bioinputs Program

1 - Crop Production

- **Pest and disease control** – bioacaricides, biofungicides, pheromones, bioinsecticides and other biological assets.

- **Soil fertility, plant nutrition and abiotic stresses** – inoculants, biofertilizers, biostimulants and other biological assets.

- **Management of plant species** – development, use and promotion of practices, processes, technologies and other biological assets applied to plant management.
Scope of the National Bioinputs Program

2 - Animal Production

• Animal health – vaccines, herbal medicines, other immunogens and therapeutics biologically based.

• Animal feed – probiotics, supplements, feed and other biologically based components for animal feed.

• Aquaculture production - biological assets for food, sanitation, treatment of effluents and for other aquaculture applications.

• Animal management – development, use and promotion of practices, processes, technologies and other biological assets applied to zootechnical management.
Scope of the National Bioinputs Program

3 - Post-harvest and Processing

• Post-harvest of products of plant origin - sanitizers, biopreservatives, packaging and other biologicals assets.

• Processing of products of animal and plant origin - sanitizers, biostabilizers, biofilms and other biologicals assets.

Biofertilizers and other technologies available to address the Fertilizers Crisis in the Latin America and the Caribbean
Some criticism of the Decree

• It makes no references to any upper federal existing legislation: lack of clear integration with other transversal and agricultural public policies,

• **Technical Note on the Decree 10,375/2020** from National Institute of Science and Technology (INCT): Microorganisms Promoting Plant Growth Aiming at Agricultural Sustainability and Environmental Responsibility –MPCPAgro
Industrial Property issues

- **Law No. 9,279, May 14, 1996** - Regulates rights and obligations related to industrial property.

- new **Examination Guidelines for Patent Applications in the Biotechnology Area** – Normative Instruction of National Institute of Industrial Property - INPI No. 118, **November 12, 2020** (74p.)
Budapest Treaty

  • managed by World Intellectual Property Organization (WIPO)
  • deposits of this type of material must be made with an “International Depositary Authority” (IDA)
Bio-inputs application helps farmers to control pests and diseases
Bio-inputs enhance sustainability of agricultural production in Brazil
Book on biological control encourages advances in sustainability of tropical agriculture
MAPA launches the National Program for Biobased Agricultural Inputs
National Program for Biobased Agricultural Inputs (Technical Note)

https://ainfo.cnptia.embrapa.br/digital/bitstream/item/212490/1/CBdocument.pdf

• Objetivos de Desenvolvimento Sustentável da Agenda 2030 e bioeconomia : oportunidades e potencialidades para atuação da Embrapa / Adriana Mesquita Corrêa Bueno, Danielle Alencar Parente Torres. – Brasília, DF : Embrapa, 2022. PDF (103 p.)

Thanks! Gracias!

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