



Alexandre Lima Nepomuceno

Graduated in Agronomy from the Federal University of Rio Grande do Sul (1987), Master's in Plant Science from the Federal University of Rio Grande do Sul (1989), Ph.D. in Molecular Biology and Plant Physiology - University Of Arkansas (1998) and post-doctorate at Japan International Research Center for Agricultural Sciences - JIRCAS, Tsukuba, Japan (2000 and 2004). MBA in Project Management ESALQ/USP (2021). Since 1990, he has been a researcher at the Brazilian Agricultural Research Corporation (EMBRAPA). He is a Full Professor in the Post-Graduate Course in Genetics and Molecular Biology at the State University of Londrina (since 1999) and in the Post-Graduate Course in Environmental Biotechnology at the State University of Maringá (since 2012). He was a Titular Member of the National Technical Biosafety Commission (CTNBio) from 2001 to 2020 for 8 terms. From Sep2011 to Sep2013 he coordinated the LABEX US Program in Plant Biotechnology located at the ARS/USDA Plant Gene Expression Center, in Albany, California, USA. He was President of the Advanced Biotechnology Portfolio applied to Agribusiness (BioTecAgro) at Embrapa from 2014 to 2020. He is a member of the Management Committee of the National Institute of Science and Technology in Synthetic Biology (INCT-BioSyn). He is a member of the Advisory Committee of the Latin American Center for Biotechnology - CABBIO. Since April 2018 he represents Brazil, which participates as a guest, in the OECD meetings in the discussion groups: Safety of Novel Foods and Feeds (WG-SNFF) and Harmonization of Regulatory Oversight in Biotechnology (WG-HROB). He is currently the Chief-General of the National Soybean Research Center (Embrapa Soja). He has experience in Plant Physiology, Molecular Biology, Genetic Engineering and Genome Editing (CRISPR systems), Drought Tolerance, Obtaining and Characterizing Genetically Modified Plants and Biosafety of GMOs.

There are several ongoing initiatives seeking to show and attest to the good practices adopted by Brazilian soy producers. In this context, Embrapa Soybean is proposing the creation and implementation of a concept-brand ("seal"), designated as Low-Carbon Soy (LCS). The LCS brand identifies soybeans coming from no-till production systems characterized by the adoption of a set of good agricultural practices that, in the light of accumulated scientific knowledge, result in the reduction of GHG emissions while maintaining or increasing productivity. The process of granting the seal will be structured through private, voluntary, third-party certification, following a measurable, reportable and verifiable (MRV) control system, in accordance with internationally recognized standards and protocols. The LCS brand should be available to the market within two years and will certainly stimulate the use of sustainable practices in soybean production, providing a distinct advantage and adding value to the grain. In addition to the advances mentioned above, it is worth drawing attention to the investments and achievements in the area of phytosanitary protection, particularly with regard to the integrated management of insect-pests, diseases, nematodes and weeds. The management of these biotic stresses is crucial for the sustainability of soy cultivation in a tropical country like Brazil.