

Department of Molecular Analysis and New Technologies and the Sequencing and Bioinformatics Area.

Analyzes samples of agrifood interest to determine the presence of genetic modifications and performs DNA sequencing

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The National Reference Center for Agrifood Safety and Biosecurity, through the Department of Molecular Analysis and New Technologies, has techniques for the detection, identification and quantification of genetic modifications. In turn, the Sequencing and Bioinformatics Area carries out whole genome sequencing (WGS) of bacteria of agri-food interest.

It began its activities in 2010, meeting the needs of the sector, using state-of-the-art technology, which allows the issuance of reliable and timely results.

Currently, the Department of Molecular Analysis and New Technologies performs the analysis to determine whether an organism has genetic modifications, through molecular tests of Genetically Modified Organisms (GMO) in seeds, leaves and grains of wheat, cotton, soybean and corn, in order to detect, identify and quantify in samples of agri-food interest, the presence of genetic modifications that give the organism resistance to pests, tolerance to herbicides or drought resistance.

The Sequencing and Bioinformatics Area performs WGS, which allows biological characterization with a degree of resolution unsurpassed at the moment by any other methodology, while allowing comparisons with

sequences from other laboratories anywhere in the world. This "universal language" character is particularly useful in the context of sanitary alerts associated with outbreaks, situations of great relevance for the commercialization of Mexican agricultural products.

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