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DEVELOPMENT OF ENVIRONMENTAL AND SOCIAL IMPACT INDICATORS TO ASSESS THE SAFETY OF AGRICULTURAL NANOPRODUCTS.
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DEVELOPMENT OF ENVIRONMENTAL AND SOCIAL IMPACT INDICATORS TO ASSESS THE SAFETY OF AGRICULTURAL NANOPRODUCTS.

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Nanotechnology has been reported as the technology that will have greater development in this century. Agricultural nanoproducts particularly gain space with the discovery of new applications and have the potential to solve environmental limitations with the introduction of agricultural inputs modified in nanoscale and also to revolutionize the global food system, considering that the applications of this area can be used in all phases of agricultural production. Many of these nano-agricultural products are already been sold or under development so one can assume that exposure to nanoparticles is critical and the environment is already suffering the impacts of its use, what makes necessary the development of a methodology for assessing environmental and social impacts of agriculture. Through extensive review of scientific literature, environmental and social impact indicators have been raised to assess the safety of nano-agricultural products. The indicators were divided into two dimensions: "Environment" (with 6 criteria and 11 indicators related to positive or negative impact of nanoparticles on the environment during production, use or disposal) and "Social" (with 6 criteria and 8 indicators related to negative or positive social impacts and working conditions of employees that use or produce nanoparticles. These indicators will be further developed and conceptually validated to integrate the methodology to assess the safety of agriculture nanoproducts.