## Technologies that support sustainable food production

Darlene Sausen<sup>a</sup>, Lucas Palhares Marques<sup>b</sup>, Maelle Cavalcante de Melo<sup>c</sup>, Gabriela de Araújo Costa<sup>d</sup> & Letícia Bezerra Azevedo<sup>c</sup>

Abstract: Small family-based producers have a fundamental role in the process of producing food, fibers and bioenergies in a more sustainable way. This is recommended by the current agriculture 4.0, which offers sustainable solutions to produce food, since they automate agricultural operations, rationalizing the use of inputs and improving the agricultural management of farms. Therefore, this work aims to provide information on some technologies that can be used by producers in the production process to put sustainability into practice. Searches were carried out on scientific bases that made it possible to identify five main technologies that are available to farmers. The

a Ph.D. in Agronomy. Entrepreneur of Agro Sausen. darlene sn@yahoo.com.br. https://orcid.org/0000-0002-3896-0168.

b Undergraduate student in Agricultural Engineering at UFRN - Federal University of Rio Grande do Norte. <a href="mailto:lucas-pm@gmail.com">lucas-pm@gmail.com</a>. <a href="http://orcid.org/0000-0002-5185-8141">http://orcid.org/0000-0002-5185-8141</a>.

c Undergraduate student in Agricultural Engineering at UFRN – Federal University of Rio Grande do Norte. <a href="mailto:maellecm@gmail.com">maellecm@gmail.com</a>. <a href="http://orcid.org/0000-0001-6049-4557">http://orcid.org/0000-0001-6049-4557</a>.

d Undergraduate student in Agricultural Engineering at UFRN – Federal University of Rio Grande do Norte. <u>gabiaraujocosta@gmail.com</u>. <u>http://orcid.org/0000-0003-3888-0587</u>.

e Graduate student in Animal Science at UFRN – Federal University of Rio Grande do Norte. <u>azevedo\_lb@gmail.com</u>. <u>http://orcid.org/0000-0003-4093-5743</u>.

19 Sausen et al.

use of more efficient and productive cultivars, telemetry, drones, biodefensives and digital platforms are strategies that can be easily inserted to improve the production and quality of life of those who work in the sector and, therefore, gradually consolidating in the field.

**Keywords:** Agriculture 4.0. Digital Farming. Family Farming. Innovative technologies.