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The Second Generation Berry Impact Recording Device (BIRD II)

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demonstrates the development of a novel sensor (BIRD II) to quantitatively measure mechanical impacts on blueberries created by machine harvesters, packing lines, and transportation vehicles. The innovative BIRD II sensor has a diameter of 21 mm and weighs 6.9 grams, which simulates a blueberry fruit that is subject to the mechanical stress dur-

ing the mechanical handling process. This sensor technology has been successfully tested and used in machine harvesters and commercial packing lines in the U.S. and Chile. Information from the sensor enables researchers and engineers to better understand mechanisms of berry interacts with handling process, leading to a better design of machine harvesters, packing lines, and transportation storage compartments.