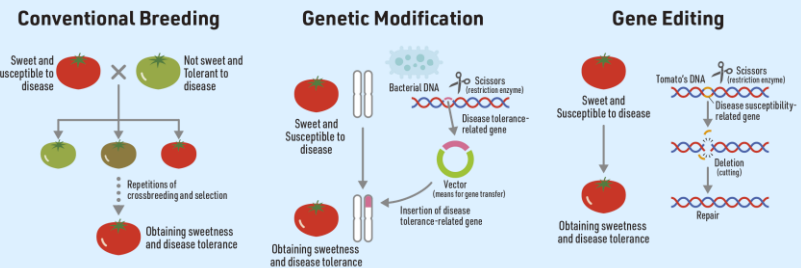


Risk, benefit, and value perceptions toward food application of emerging technologies: Clarifying boundary conditions of deficit model

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Abstract & Method

Two experimental web-based surveys were conducted among the Japanese experts and public to understand differences of their perceptions of gene editing versus other emerging or conventional breeding techniques in 2016 and 2017. The respondents were categorized in the three groups of lay public, experts in molecular biology, and experts in other fields. The assessment was made in four conditions and the attitudinal changes were statistically analyzed, revealing group differences in risk, benefit, and value perceptions of different technologies.



Results

Molecular biology experts showed highest benefit and value perceptions, and lowest risk perceptions regarding new technologies. The lay public showed a little more favorable attitudes toward gene editing than toward genetic modification, but such differences were much smaller than the differences between conventional breeding and genetic modification. The experts in other fields showed some characteristics that are similar to the experts in molecular biology in value perceptions, while showing some characteristics that are similar to the lay public in risk perceptions. The effects of lay public's scientific knowledge on attitudes were observed on benefit perceptions but not in risk or value perceptions.

