Preferences for pesticide-free food achieved by cisgenics:

Exploring differences among conventional and organic consumers

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ABSTRACT:

Pesticide use in food production is a concern that is increasingly recognized among consumers, as suggested by the growing sales of organic food products. Organic production is, however, typically associated with lower productivity levels. Genetic modification (GM) enables production with fewer pesticides while maintaining productivity levels, but consumers are reluctant to accept such breeding methods. Consumer concerns related to aspects such as food safety and unnaturalness are addressed by breeders with GM types such as *cisgenics*, which only allow gene transfers between sexually compatible species. This restriction is not the case in the hitherto most familiar GM type, transgenics. This study investigates the willingness to pay for pesticide-free food when obtained by cisgenic breeding, and if this differs between organic consumer segments. Data from a choice experiment was combined with respondents' actual share of organic consumption. No consumer segment differentiated between pesticide-free, cisgenic rye bread and conventional alternatives. Conventional consumers preferred cisgenics over transgenics, while pesticide-free is not valued highly. Frequent organic consumers were willing to pay a large premium for organic, indicating that they will likely continue to purchase such products even if cisgenic, pesticide-free products are introduced. Implications and market potential for new breeding techniques are discussed.