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Evaluating front-of-pack environmental sustainability messaging for meat and meat alternative products

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Scientific evidence supporting the benefits of adopting a healthier and more environmentally sustainable diet is increasing, as is interest in sustainable food consumption among the Australian public. However, identifying more environmentally sustainable food products poses a challenge to shoppers. This study systematically evaluates front-of-pack (FOP) sustainability-related messaging on meat and meat-alternative products found in major Australian supermarkets. A comprehensive coding manual was developed to classify FOP messages into domains consistent with the FAO/WHO Healthy and Sustainable Guiding Principles.⁽¹⁾ Five domains of environmental sustainability messages (ESM) were: *Ecological resource use*; *Biodiversity preservation*; *Antibiotics and hormone use*; *Packaging type*; and *Food loss and waste*. A sixth domain, *Other sustainability promotion*, included the economic and sociocultural aspects of the sustainable guiding principles, and ‘green descriptor’ messages likely to influence consumer perception of sustainability (e.g. ‘natural’, ‘eco-friendly’). As a case study, the manual was applied to meat and meat alternative products due to their implications for sustainable food systems.⁽²⁾ One coder analysed FOP product images for messages related to sustainability for all meat ($n = 1664$) and meat alternative ($n = 113$) products. Data was contained within FoodTrackTM, an established packaged supermarket product database developed by the Commonwealth Scientific and Industrial Research Organisation in collaboration with the National Heart Foundation of Australia. Descriptive statistics were used to report message prevalence and Pearson’s chi-squared to test for significance. A total of 12,055 sustainability messages were displayed across all meat and meat alternative products, with 97% of products containing at least one FOP sustainability message. Meat alternative products displayed more sustainability messages than meat products, with a median (IQR) of 10.0 (5–13) and 7.0 (4–9) messages per product respectively. It was most common for products to display messages about ecological resource use (91% of products), followed by other sustainability promotion (80%), food loss and waste (65%), biodiversity preservation (36%), antibiotics and hormone use (13%) and packaging type (5%). Meat alternative products were more likely to display ecological resource use messages (100% v. 91%, $p < 0.01$) and food loss and waste messages (84% v. 64%, $p < 0.01$) than meat products. Interestingly, ‘green descriptor’ messages were commonly displayed alongside ESM messages, with 46% of meat and 71% of meat alternative products displaying at least one of each message type. This study provides the first evaluation of front-of-pack sustainability promotion in Australian supermarkets. The presence of sustainability-related messages on most analysed products, and the common co-occurrence of messages aligning with the Healthy and Sustainable Guiding Principles with ‘green descriptor’ type messages, raises questions about the influence of on-pack messaging practices in anticipation of growing public demand for more environmentally sustainable food products. Planned analyses will examine the intersection of sustainability messaging with cost and healthiness of products.

References

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2. Poore J & Nemecek T (2018) *Sci* **360**, 987–992.