FOOD STANDARDS
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Supporting document 4

Health Star Rating symbol assessment

Proposal P1067 - Health Star Rating System

Executive summary

This report examines the Health Star Rating (HSR) symbol on packaged foods sold in Australia and New Zealand, focusing on symbol presentation, on-pack location and placement, and legibility. The assessment considers whether changes to how the HSR symbol is displayed could improve consumer understanding and use of the system.

Food Standards Australia New Zealand (FSANZ) proposes simplifying the HSR symbol so that only the stars element is displayed. Evidence indicates that a simplified symbol is easier for consumers to notice and interpret. Stakeholders also raised concerns that additional nutrient icons can make interpretation more difficult, duplicate information already provided in the Nutrition Information Panel (NIP) and in some cases appear to conflict with the overall star rating.

FSANZ also proposes the HSR symbol must be displayed on the front of the package when used. Front-of-pack nutrition labels are more visible and more likely to be used by consumers. This practice is already common among products that display a HSR symbol. An exception is proposed for imported foods that over-sticker mandatory labelling information, whereby if the symbol is presented alongside other information on a sticker, that sticker would not be required to be placed on the front of the package.

Finally, FSANZ proposes the HSR symbol must use the trademarked design and comply with existing legibility requirements in the Australia New Zealand Food Standards Code (the Code).

Overall, the proposed changes aim to provide clarity, consistency and visibility of the HSR symbol, strengthen consumer trust in the system and improve its effectiveness in supporting healthier food choices across Australia and New Zealand.

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1.1 HSR symbol

1.1.1 Proposed approach

Food Standards Australia New Zealand (FSANZ) proposes the following approach:

- the Health Star Rating (HSR) system is presented to consumers using the trademarked HSR symbol
- the HSR symbol comprises the stars element only
- the energy and nutrient elements are not permitted.

1.1.2 Current approach in the voluntary system

The HSR System Implementation Guide (Implementation Guide) describes the three main elements of the HSR graphic[1] as shown below:

1. **Stars element**. This displays the shaded star rating, with the corresponding numerical rating under the shaded stars.

2. **Energy element.** This displays the average energy content of food, per nominated reference measure.

3. **Nutrients element**. These individual icons display the average energy content of the food and the average quantity of prescribed nutrients (saturated fat, sugars, sodium), per nominated reference measure. A single positive nutrient may also be included at the end.

The energy and nutrient elements may display additional interpretive information, including percentage daily intake (%DI), 'low' and 'high' in the lower third of each shaded icon, where relevant provisions in Standard 1.2.7 and Schedule 4 of the Australia New Zealand Food Standards Code (the Code) have been met.

The stars element must always be used where the HSR system is adopted. The energy and nutrient content declarations are optional. Businesses are encouraged to use as many elements of the HSR system graphic as possible, consistent with the hierarchy of display options presented in Table 1 below.

[1] The term 'HSR graphic' is used in the Implementation Guide. FSANZ is using the term 'HSR symbol' instead of 'HSR graphic' in the proposed mandatory system.

Table 1. HSR graphic hierarchy of display options

Hierarchy of options	Display elements
1	Stars + Energy + Prescribed nutrients + Positive optional nutrient
2	Stars + Energy + Prescribed nutrients
3	Stars + Energy
4	Stars

Vertical display options and graphics with the stars on the right and optional elements on the left are further possible configuration and display options.

In the voluntary system, specific interpretive colours are not required to be applied to the graphic.

1.1.3 Relevant Code provisions

A definition of the *Permitted Health Star Rating Symbol* is set out in subsection 1.1.2 ─ 15(1) of the Code. This definition refers to specific Australian and New Zealand trademark numbers for the symbol but does not include the following elements of the HSR symbol:

- 'low' descriptors used in conjunction with prescribed nutrient icons for saturated fat, sugars and sodium
- 'positive' nutrient icons, for example dietary fibre, calcium
- 'high' descriptors used in conjunction with 'positive' nutrient icons.

Subsection 1.1.2—15(2) recognises the fact that the HSR system and the relevant trademarks provide for the trademarked images to be used to indicate varying levels of energy or nutrient content. The subclause makes clear that any such variations do not affect an image's status as a *Permitted Health Star Rating Symbol* for the purposes of the Code.

Subsection 1.2.7—6(d) provides that Standard 1.2.7 does not apply to a *Permitted Health Star Rating Symbol*. The effect of this clause is that the use of energy icon and icons for sodium, saturated fat and sugars in the HSR symbol would not need to comply with nutrition content or health claims requirements in Standard 1.2.7.

Section 1.2.8—3 provides that Standard 1.2.8 does not apply to a *Permitted Health Star Rating Symbol*. The effect of this clause is that the use of the energy icon and icons for sodium, saturated fat and sugars in the HSR symbol would not need to comply with additional nutrition information labelling requirements associated with claims as set out in Standard 1.2.8.

Refer to section 3.3 – Form of the food in SD5 for details outlining the calculation of the HSR across various forms for which a food is sold.

1.1.4 Stakeholder views

All stakeholder groups suggested removing permission to display the energy and nutrient elements, believing they may mislead consumers and detract from the HSR's overall goal of providing simple, summary information. Instead, removing these optional elements would increase consistency, reduce the label space required for the symbol and avoid duplicating Nutrition Information Panel (NIP) information.

Public health, government and academia stakeholder groups also called for interpretive colour to be added to the symbol to further enhance consumer understanding, highlighting the HSR system is the only front-of-pack labelling (FoPL) scheme internationally that does not specify a particular colour.

1.1.5 Evidence summary

1.1.5.1 Consumer evidence

Consumers view the HSR as a quick, simple and practical summary indicator. The stars are seen as familiar and relatable, often due to their similarity with other guidance schemes such as appliance energy ratings (see SD1, SD2).

However, evidence suggests consumers find it harder to identify the healthier food where additional information such as energy or nutrient information is added to the HSR symbol. It takes them on average 11 seconds longer to identify the HSR (FSANZ 2025), and a greater proportion incorrectly selected the label with the lower star rating as being healthier. In recent monitoring surveys, 85–93% of consumers were able to correctly identify the healthier of two HSR symbols when the stars were presented alone, compared with 48–59% when the stars symbol was presented with energy and nutrient information, representing a substantial decline. Qualitative survey and focus group evidence also indicates that when additional information is present, many consumers use their own heuristics to identify the healthier option, such as choosing the food with less sugar regardless of other nutrients, as opposed to relying on the overall star rating.

There was limited quantitative evidence exploring how consumers compared different HSR symbols, i.e. stars only vs symbols with additional energy and nutrient information. However, focus group participants noted the importance of consistency in symbol elements for use and understanding, particularly in terms of whether additional information was presented per pack or per 100 g.

Despite perceiving them as somewhat harder to use, consumers preferred HSR symbols with additional information and tended to trust them more. However, in focus group comparison tasks where additional energy or nutrient information appeared to conflict with the overall star rating such as a product with more sugar having a higher star rating, trust in the system was negatively impacted.

Differences in consumer preference across HSR symbol types were more pronounced, with 63–84% preferring the symbol with energy and nutrient information, compared with 10–21% preferring the stars alone. Focus group and monitoring survey evidence suggest consumers prefer the symbol with additional nutrient and energy details because they feel it provides the information they need to identify foods without needing to look at the NIP. It was also seen by some focus group participants as providing the system with greater transparency, as they assumed the values reflected those used to determine the star rating. Focus group participants also valued the ‘high/low’ nutrient labels sometimes included within this symbol type, as they were perceived to make interpretation of nutrient information faster and easier. However, the symbol with additional information was perceived by some to be too complex or duplicative. For those who preferred the stars only format, reasons commonly included that it is the easiest to understand, recognise and use, although it was often perceived to lack sufficient context.

1.1.5.2 Use of the HSR symbol elements (Australian data)

The HSR symbol elements displayed on the front of packaged foods sold in Australia was determined using data from the BFD[2] (see Table 2 and section A1.2.1.2.1 below for more information).

Table 2. Number and proportion of foods displaying HSR on pack by HSR symbol element in Australia in 2024 and 2025

HSR symbol elements (Displayed with descriptive terms)	2024 BFD dataset % (n) Total n = 7,725	2025 BFD dataset % (n) Total n = 8,112
Stars N/A	**71% (5,501)**	**71% (5,761)**
Stars + Energy (Displayed with %DI)	**12% (920)** 1% (78)	**12% (980)** 2% (148)
Stars + Energy + Nutrients Displayed with %DI or low	**16% (1,226)** 0.1% (11)	**16% (n=1,265)** 0.02% (2)
Stars + Energy + Nutrients + positive nutrient Displayed with %DI, low or high	**1% (78)** 0.3% (23)	**1.0% (106)** 0.3% (28)

The stars element was the most common element used on the food labels in both 2024 and 2025 at 71%. There was very limited use of additional interpretive terms in both 2024 (1.4%) and 2025 (2.2%).

1.1.6 Rationale for proposed approach

FSANZ is proposing the trademarked HSR symbol continues to be used to present the HSR system to consumers. The stars design has been displayed on foods since 2014. Consumers relate to this design and evidence indicates a high proportion of consumers understand foods with more stars are healthier than foods with fewer stars. However, FSANZ notes two thirds of consumers do not understand that the HSR should only be used to compare similar products (see SD1) and that this should be addressed in consumer education programs.

FSANZ also proposes the HSR symbol is comprised of the stars element only and that any other elements are not permitted to be included. Amendments to existing Code provisions about the *Permitted Health Star Rating Symbol* (see section 1.1.3 above) would be considered in the 2nd call for submissions.

Consumer research demonstrates that the stars-only symbol best supports understanding of the HSR. Participants were substantially more accurate, faster and found it easier to identify healthier options using this symbol. While consumers trusted HSR symbols with energy and nutrient elements, more on average compared to the stars alone, these differences were small and trusting the symbol was the least common reason why participants reported preferring a specific symbol.

[2] Data collected in-store by FSANZ as part of the 2024 and 2025 HSR uptake monitoring was used to support this analysis and included both permitted intended and permitted not intended foods displaying a HSR.

Consumers displayed a strong preference for HSR symbols with energy and nutrient elements, primarily because they perceived that they provided them with the information they needed to make a decision. However, this information would be available to consumers consistently in the NIP should they want to access further detail.

Omitting energy and nutrient information from the HSR symbol may reduce incorrect perceptions that only these elements underpin the star rating and reduce confusion when star ratings seem inconsistent with energy and nutrient information shown on the front-of-pack (FoP).

Allowing only the stars symbol would simplify the system and provide consistency by removing variable display options including the use of additional positive nutrients, descriptive terms (%DI, low, high) and variation in reference measures (e.g. per 100 g, per pack). Consistency was identified as important for use and understanding by focus group participants and stakeholders. It should also simplify implementation and enforcement and allow for more focused education messages. While some focus group participants appreciated interpretive low/high descriptors, in previous research commissioned by FSANZ, responses to these were mixed. Consumers felt they should be consistently applied across all nutrients, and some were unclear whether the nutrient levels were high or low relative to other foods, or as a proportion of their daily intake (Heartward Strategic 2024).

In addition, the simplified symbol would avoid duplicating the same information on the label, reduce the label space required for implementation, and minimise change for food businesses given they are primarily using this symbol.

As discussed in section 3.3 of SD5, additional wording that clearly indicates the HSR relates to the food ‘as drained’ or ‘reconstituted’ would be required together with the HSR symbol for foods which have a HSR calculated ‘as reconstituted’ or ‘as drained’. Otherwise, no other additional wording is required alongside the symbol.

FSANZ notes stakeholder suggestions to include colour in the HSR symbol to potentially enhance consumer understanding. While the use of colour in the HSR symbol was scoped out of the literature review, an international randomised control trial including Australia and New Zealand tested the impact of adding traffic light colouring to the symbol (red 1.5 stars, orange 3 stars, green 4.5 stars) (Pettigrew et al. 2020a; Pettigrew et al. 2020b). The study found that adding traffic-light colouring to stars-only HSR labels significantly improved consumers’ ability to identify healthier breakfast cereals, compared with a monochrome HSR with all symbol elements, while colour added to the symbol with all elements provided no additional benefit. Purchase intentions improved only in Australia, where the coloured stars-only format increased selection of the healthier product, whereas no HSR format affected product choice in New Zealand.

Another approach could be to use colour to draw attention to foods that align with Guideline 2 of the Australia Dietary Guidelines (ADGs) (NHMRC 2013) and Eating Statement 1 of the New Zealand Eating and Activity Guidelines (NZEAG) (Ministry of Health 2020) “enjoy a variety of nutritious foods every day”. For example, a gold colour could be applied to the HSR symbol for such foods and black and white applied to the symbol for all other foods. Criteria for foods allowed to display the gold colour would need to be developed.

FSANZ will further consider the potential use of colour for interpretive purposes. This analysis and consideration would best be undertaken separately to this proposal after the completion of the ADG review, particularly if colour was applied to the symbol based on foods recommended in these guidelines and the NZEAGs. Consumer research would be

required to inform any proposed changes, including identifying the most appropriate colour to use to support consumer understanding.

Questions for submitters:

Do you support FSANZ's proposed approach for the HSR symbol to be the stars element only? Please provide reasons for your response, including any evidence on consumer use or implementation considerations.

Do you have any information or evidence to inform the consideration of colour including as it relates to supporting consumption of foods identified in Guideline 2 of the ADGs and Eating Statement 1 of the NZEAG? Please provide any consumer evidence and/or information on implementing the use of colour in the HSR symbol.

1.2 Location of HSR symbol on packaged foods

1.2.1 Proposed approach

FSANZ proposes the following approach:

- the HSR symbol must be presented on the front of a package of food (when required or voluntarily applied), except for certain imported foods
- the HSR symbol(s) may also be displayed elsewhere on the label, providing the rating is the same as the rating displayed on the front of the package (see section 3.2.1 in SD5 for the proposed approach for multipacks labelled with more than one NIP)
- for imported foods that are re-labelled, meaning a new label is placed over incorrect information (i.e. over-sticker), the HSR symbol could be included on this new label, along with the other required information and not be on the front of the package.

1.2.2 Current approach in the voluntary system

The Implementation Guide states the HSR graphic should be displayed on the **front label** of a food as displayed at point-of-sale. Where foods are generally displayed with an alternative visible facing side (such as in a chest freezer where a side facing may be visible to the shopper), the graphic may be placed on the commonly visible facing side.

For foods in cylindrical packaging the graphic should be placed on the part of the container most likely to be considered the FoP (i.e. showing a prominent brand and net weight/volume). There is no requirement to duplicate the graphic on a secondary facing, however, if the graphic is duplicated on a secondary facing, the rating must be the same as on the front of the package and not an example of a lower or higher HSR.

The HSR system is intended to apply to both domestically manufactured and imported foods. Importers of packaged foods into Australia and/or New Zealand are strongly encouraged to adopt the HSR system for intended foods.

1.2.3 Relevant code provisions

The term 'front of a package' is used in the Code but it is not defined.

Subsection 1.2.1—22(2) provides that a person who sells a food that is packaged, or deals with a packaged food before its sale, may re-label the food if the label contains incorrect information, by placing a new label over the incorrect one in such a way that:

(a) the new label is not able to be removed; and
(b) the incorrect information is not visible.

1.2.4 Stakeholder views

No relevant comments were received regarding the location or additional displays of the HSR symbol.

See Table 2 – Section 2.2.4 of SD5 for stakeholder comments on the application of HSR to imported foods.

1.2.5 Evidence summary

1.2.5.1 Consumer evidence

A substantial evidence base demonstrates that nutrition information placed on the front of pack is more likely to be noticed, understood, and used to improve the healthfulness of food choices than nutrition information displayed on the back of pack (Kelly et al. 2024; US FDA 2023). The evidence suggests that any FoPL is better than no FoPL in improving diet-related outcomes. Qualitative research also highlighted the presence of the HSR on the front of pack as a key benefit, enabling a convenient assessment of food healthiness without having to turn to the back of pack to review the NIP, especially when under time pressure (see SD2).

1.2.5.2 Location of HSR symbol on packages

FSANZ has identified the location of the HSR symbol displayed on foods sold in Australia using labels extracted from the BFD in January 2026[3] see Table 3 below (and A1.2.1.3.1 on page 20).

Table 3. HSR symbol location on foods in the BFD

HSR symbol location	Proportion of foods in specified location % (n) Total n = 8,335
Front	97% (8,112)
Back	2% (135)
Bottom	0.5% (41)
Side	0.4% (36)
Top	0.1% (11)

The majority of foods (97%) displayed the HSR symbol on the FoP, with only a small proportion (3%) displaying the sole HSR symbol in another location. The symbol not being presented on the FoP did not appear to be related to a shortage of space on the FoP or with the rating as most foods (82%, n=183 of 223 foods) had a rating of 3 or more (see Table A1.4).

[3] Data collected in-store by FSANZ as part of the 2025 HSR uptake monitoring and included both permitted intended and permitted not intended foods displaying a HSR.

1.2.5.3 Imported foods

HSR uptake monitoring undertaken by FSANZ in 2025[4], identified approximately one-third of packaged foods for sale in Australia's 4 main retailers are imported[5] (n=6,021/18,763, 32%). Of these, 32% (n=1,930) currently display the HSR.

1.2.6 Rationale for proposed approach

FSANZ is proposing that, when required or voluntarily applied, the HSR symbol must be presented on the front of the package of a food.

A large evidence base demonstrates nutrition labelling information on the FoP is more likely to be noticed, understood and used by consumers compared with nutrition information not on the FoP and is better in improving diet-related health outcomes. FSANZ's recent consumer research showed participants believed the HSR symbol being on the FoP was a key benefit.

The very high proportion of foods displaying the HSR symbol on the FoP (97%) in the voluntary system in Australian suggests there is a consistent understanding of what 'front-of-pack' means across the industry. Consequently, FSANZ considers the ordinary meaning of 'front-of-pack' is appropriate and there is no need to further define this. This approach is consistent with the existing approach in the Code when information is required to be presented FoP.

Should manufacturers choose to display an additional HSR symbol (e.g. for education about the HSR system) the symbol rating used for any additional purpose, must match the rating displayed on the front of the pack. If a food is generally displayed with an alternative packaging surface, an additional symbol could also be placed on this surface e.g. chest freezer.

Requiring imported foods to display the HSR, unless specifically exempt or prohibited, facilitates consumer comparison of foods, as per the intent of the system, regardless of the origin of the food. Additionally, the approach standardises the application of requirements to display the HSR, for both domestic producers and importers of international foods.

There are already mechanisms in place for the labelling of imported foods including the ability to relabel and over-sticker once a food is imported (see section 1.2.3 above). For imported foods that are re-labelled, meaning a new label is placed over incorrect information (i.e. over-sticker), the HSR symbol could be included on this new label, along with the other required information. In such cases, it would not be necessary to display the HSR symbol separately on the front of the package. This approach removes the need for an additional label or over-sticker solely for the HSR symbol on the front of the package. This is discussed further in SD6.

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[4] Includes all foods collected in-store by FSANZ regardless of whether they displayed a HSR or not. See section 2.2.1 in SD3 for further details.

[5] Foods were identified as imported if they displayed a 'made in', 'product of' or 'packed in' statement referring to a country other than Australia or New Zealand. Foods with statements such as *Packed in Australia with ingredients from [other countries]* and *Product of [other countries], packed in Australia* were not considered an imported product for this exercise.

Question for submitters:

Do you support FSANZ's proposed approach for the location of the HSR symbol on a package of food? Please provide reasons for your response, including any evidence on consumer use or implementation considerations.

1.3 Presentation, legibility and placement of HSR symbol

1.3.1 Proposed approach

FSANZ proposes the following approach:

- the HSR symbol must be displayed according to the trademarked design
- the existing legibility requirements in the Code would apply to the HSR symbol.

The trademarked symbol design elements would be set out in the Code.

1.3.2 Current approach in the voluntary system

On pack design principles for the HSR graphic as outlined in the Implementation Guide are provided below.

- All elements of the graphic must be presented exactly as illustrated in the Guide (see section 1.1.2 of this report).
- All stars must be visible, with shading behind the appropriate number of stars to indicate the rating of the product.
- The style of the energy and nutrient icon elements must be as illustrated, noting the energy element is not permitted in isolation (i.e. without the stars element of the HSR system graphic).
- The stars element of the HSR system graphic should be larger than the energy and nutrient elements.
- Stylised versions of HSR elements are not permitted.
- Businesses are responsible for choosing the colour and size of the graphic.
- The graphic should be presented in a colour that meets legibility requirements set out in the Code and provides good contrast to the background to maximise legibility (see section 1.1.3 below).
- Where the HSR system graphic may not be legible due to background images or colour, a white or contrasting colour panel can be used behind the HSR system graphic to further aid legibility.
- The graphic can be scaled according to the package size, provided that all elements used remain legible.
- The words 'Health Star Rating' should be displayed prominently below the stars.
- The nutrient names and values should be displayed in a clear and legible way.

1.3.3 Relevant code provisions

General legibility requirements are set out in subsections 1.2.1—24(1) and (2) of the Code.

Subsection 1.2.1 – 24(1) provides that any words must be in English, and that any word, statement, expression or design must be legible and prominent so as to contrast distinctly with the background of the label.

1.3.4 Stakeholder views

Public health, consumer, government and academic stakeholders suggested improving the visibility of the HSR symbol. They suggested testing ways to increase prominence, salience and legibility and consider uniform placement and minimum size requirements.

Conversely, industry stakeholders generally supported maintaining the current flexible display approach, including choice of colour, size and positioning, to avoid increased costs, regulatory burden and to accommodate varying packaging types and sizes.

Additionally, public health stakeholders called for research into consumer impacts and understanding, when nutrition content or health claims were displayed alongside a HSR. Stakeholders cited concern that the competing information may contradict or detract from consumer use, understanding and trust in the HSR.

1.3.5 Evidence summary

1.3.5.1 Assessment of presentation, legibility and placement of HSR symbol

FSANZ used data extracted from the BFD in January 2026[6] to analyse HSR symbol presentation, legibility and placement.

'Placement' refers to the position of the HSR symbol on the front of a package (e.g. top half, bottom half) and was recorded and assessed for all foods displaying a HSR on the FoP (n=8,112).

Only HSR symbols displayed on a randomly selected sample of foods (811 foods: 10% of 8,112) were reviewed for consistency with 10 presentation and legibility criteria (see Table 4 below and Appendix 3 for details). Criteria were derived from the Implementation Guide design principles and legibility requirements of the code (refer sections 1.3.2 and 1.3.3 above). Additional information about the use of colour selection for displaying the symbol and the presence of certain claims adjacent to the symbol was also collated.

[6] Data collected in-store by FSANZ as part of the 2025 HSR uptake monitoring and included both permitted intended and permitted not intended foods displaying a HSR.

Table 4. HSR symbol presentation and legibility criteria

Assessment criteria	Criteria description
1. Shape / layout / proportions	The symbol correctly applies the trademarked symbol shape, layout, and relative proportions of each element.
2. Border/differentiation	The symbol is clearly differentiated from the packaging through the use of a border or contrasting panel.
3. Typeface and sentence case	The symbol uses a clear, legible typeface and applies correct sentence case.
4. Clarity	The symbol is presented with sufficient clarity to support ease of reading.
5. Component spacing	Spacing between symbol components (lines, text, numerals, and elements) aligns with the prescribed layout.
6. Visibility due to placement	The symbol is placed in a visible, distinguishable, and unobstructed location on the packaging.
7. Colour contrast	The symbol is easily visible due to appropriate colour selection and contrast.
8. Visibility and prominence against packaging imagery	The symbol is clearly visible, easily noticeable and distinguishable, and stands out from the surrounding packaging imagery.
9. Readability of text	The symbol's colour choices and design support legibility and ease of reading.
10. Size and scale	The symbol is appropriately sized and scaled relative to the package or label dimensions.

Further information on the methodology for this analysis is provided in sections A1.2.2.1 and A1.2.2.2 of Appendix 1 with results presented in sections A1.2.2.3

1.3.5.2 Presentation and legibility

Of the 811 HSR symbols reviewed, 73% were consistent with all 10 presentation and legibility criteria noting 94% of symbols were consistent with 7 of the 10 criteria (see Table A1.10 for further detail). Twenty-seven percent of symbols were inconsistent with at least 1 of the criteria. Most inconsistencies were related to one of three criteria: shape, layout and proportions; symbol, typeface and sentence case; and component spacing. These inconsistencies were often found across stylised versions of the symbol, which deviated from presentation requirements and did not match the example images in the Implementation Guide.

Less inconsistencies were noted across contrast, visibility, readability and size, or due to competing imagery or poor contrast reducing prominence of the symbol.

Presentation and legibility outcomes were also analysed by HSR symbol types. A high proportion of symbols with the stars only (85%), were consistent with the criteria as shown in Table 5 below (see Table A1.11 for further details). These findings show there were more inconsistencies in presentation and legibility when the energy and nutrient elements were used compared with the stars only.

Table 5. Summary of presentation and legibility outcomes by HSR symbol types

HSR symbol element (n)	Consistent with criteria % (n)	Inconsistent with criteria % (n)
Stars only (n=576)	85% (488)	15% (88)
All other symbol types (n=235)	46% (108)	54% (127)

1.3.5.3 Additional HSR symbol information

About one third of the assessed symbols were presented in black and white (n=301) and of these, 82% were consistent with all 10 presentation and legibility criteria (see section A1.2.2.3.2 for further information). In contrast, of the 510 symbols presented in colour, 350 (69%) were consistent with all 10 criteria, lower than that for the black and white symbols. However, of the 510 symbols in colour, when presented in the Stars only format, overall consistency with the presentation and legibility criteria remained high, at 81%. Consistency was substantially higher for black and white HSR star element only, with 90% meeting all criteria, compared with 53% of other black and white symbol types.

Ten percent (n=81) of foods in the dataset had nutrition content or health claims positioned close to the symbol (refer section A1.2.2.3.2). Of these foods, 96% had a rating of 3 or more stars, indicating low practice of claims alongside lower health star ratings.

1.3.5.4 HSR placement on front-of-pack

As shown in Table 6, 90% of foods displayed the HSR symbol in the bottom half of the front of the package (see Table A1.5 for detail). About half of these (51%) were displayed on the left-hand side and 35% on the right-hand side. There was limited placement of the symbol in the top half, or middle of the front of the package. Results demonstrate a consistent placement pattern indicating businesses favour displaying the symbol on the lower half of the package

Table 6. Placement of HSR symbol on FoP

FoP placement	Proportion of foods in specified place on FoP % (n)
Bottom half, left hand side	51% (4,114)
Bottom half, right hand side	35% (2,837)
Bottom half, middle	4% (326)
Top half	10% (481)

1.3.5.5 Consumer evidence

FSANZ's systematic literature review (see SD1) suggests that the HSR symbol is generally salient on pack for approximately 60% of consumers. In 2017-18, 61% of Australian consumers agreed that the HSR symbol stands out on pack. However, only 45% agreed that it really grabs their attention. In 2016, 24% of Australian consumers agreed the HSR symbol is hard to see on the package. In 2018 in New Zealand, 62% agreed that it is easy to find the

HSR symbol on packaged foods. These studies asked about consumer's general experience of the HSR system in the market, rather than any provided examples. The literature review did not identify any studies investigating the impact of HSR symbol legibility, size or position on pack on consumer use and understanding.

While the focus group study (see SD2) did not specifically ask about legibility, size or position on pack, participants commented that the FoP location of the HSR symbol made it easy to see at a glance when time poor and suggested consistency could aid use and understanding.

The literature review included focus group findings which investigated the impact of health and nutrition content claims, on consumers trust, use and understanding in the HSR system. New Zealand participants expressed confusion and mistrust in labelling when nutrition content claims were presented on packs which also displayed a low star rating. Earlier testing on Australian consumers, both children and adults, found that where consumers identified a discrepancy between a health or nutrition claim, the FoPL would be considered a more reliable source of information.

Considering the limited HSR system specific evidence, FSANZ identified four studies referred to by international regulatory agencies which investigated these factors in relation to international FoPL schemes. This included two nationally representative experimental surveys on Canada's FoP nutrition symbol (Leger 2018, n=4,049) and the United States' proposed Nutrition Information Box (US FDA 2024, n=5,922), and two smaller visual attention studies on warning labels in Uruguay (Cabrera et al. 2017, n=61) and the Dutch choices tick logo and the guideline daily amount schemes (Bialkova and Van Trijp 2010, n=24). A systematic search for international literature was not conducted.

Studies that investigated position on pack suggest there may be some advantages of consistent positioning of FoPL, particularly in the top half of the package. These include reduced time to understand the label (Leger 2018) and slightly faster identification of the presence of the label (Cabrera et al. 2017; Bialkova and Van Trijp 2010) in some studies, but not others (Leger 2018). There appears to be no benefit to a prescribed position on participants' overall ability to understand the label, within either the general population or those with a high health literacy (US FDA 2024; Leger 2018). However, one study found that a consistent location caused a small increase in understanding of the label for participants with lower health literacy (Leger 2018).

Studies that investigated the impact of label size found that larger FoPL may benefit consumer accuracy and speed in undertaking specific tasks. This included speed and accuracy in identifying which nutrients a product is 'high in' using the Canadian scheme (Leger 2018), and small increases in time taken to identify the presence of a FoPL in some studies (Cabrera et al. 2017; Bialkova and Van Trijp 2010). However, Leger (2018) did not identify any significant differences in ability to identify the presence of the Canadian FoPL by size, and in contrast, found participants were slightly faster to identify a smaller FoPL.

1.3.6 Rationale for proposed approach

As discussed in section 1.1.1 above, FSANZ is proposing the HSR symbol be the stars only. The trademarked stars symbol sets out the design requirements. We expect to include the design elements in the Code.

The symbol assessment undertaken by FSANZ demonstrates a high level of consistency (73%) for presentation and legibility, against all 10 criteria. Seven of the ten criteria had

consistency rates of 94% or higher. Of the three criteria that had lower consistency rates (86-89% for shape/layout/proportions, typeface and sentence case, component spacing), inconsistency was noted to arise from stylisation of the HSR symbol presentation and display, as opposed to complete misalignment of the symbol with the illustrated examples within the Guide.

When consistency rates were analysed across HSR symbol display type (stars only compared with stars plus all other formats), there was a very high level of consistency with the HSR symbol stars element only format, against all ten criteria (85%). This was contrasted by a significantly lower consistency rate across all ten criteria for symbol types displaying energy and nutrient information (46%).

When symbol display type was further analysed by colour selection (black and white, or other colours) the stars only format continued to demonstrate high consistency across all ten criteria, when displayed in either colour selection (90% consistent when displayed in black and white, compared with 81% consistent when displayed in alternative colours). Results demonstrate that regardless of colour selection, the stars symbol has a high degree of presentation and legibility consistency under the current flexible presentation design principles.

Ten percent (n=81) of foods in the dataset had nutrition content or health claims positioned close to the symbol. As 96% of these had a rating of 3 or more stars, the presence of nutrition content or health claims near lower health star ratings was limited. Current available evidence demonstrates nutrition content or health claims positioned on the same display surface as a FoPL that conflict with the health or nutrition claim (e.g. has a low rating) may cause confusion and mistrust in consumers. However, research demonstrates that where discrepancies are identified, consumers consider the FoPL to be more reliable and base their selection on this information instead (see SD1).

There is limited evidence on the impact of legibility, size and placement of the HSR symbol on consumer use and understanding. Additionally, information on general consumer views of symbol legibility is 8-10 years old, raising questions about its relevance today. Several international nutrition warning labels have prescribed legibility, minimum size and/or placement requirements (Attachment B to the CFS). Our assessment suggests display of the symbol in a small size that makes it hard to see is uncommon. FSANZ is therefore proposing to maintain flexibility with the symbol size which can be adjusted in the context of the package size to maintain legibility. Should consideration for the use of colour be considered and consumer tested, as mentioned in section 1.1.6 above, consumer testing for legibility may also need to be undertaken to ensure a coloured symbol was salient.

FSANZ considers the available body of evidence supports the current approach of requiring the symbol to be presented in accordance with design elements as trademarked and applying the existing legibility requirements in the Code. Based on FSANZ's assessment of symbols, most are presented so they can be readily seen on FoP. FSANZ acknowledges there are several limitations with the study including the sample being restricted to foods sold in Australia, subjectivity of the assessment for some criteria, the symbols being assessed using online images rather than physical packages consumers would examine and that a detailed assessment of symbol size was not possible.

Current practice for placement of HSR symbols shows a strong preference from industry to position the symbol in the bottom half of the FoP (90%). Internationally, there is a small body of evidence to suggest that standardised placement of nutrition warning labels on FoP may assist consumers with lower health literacy to locate and utilise the information and also

reduce times for consumers to find the label. While standardising the placement of the HSR symbol may have the potential to assist consumers to locate and utilise the symbol more readily, given that most symbols are currently being placed in a common location regulating placement appears unnecessary.

Based on the available evidence for the HSR symbol, which is not a warning label, and our regulatory context, FSANZ does not consider additional prescription for presentation, legibility and placement is justified. Consumers should be able to readily see the HSR symbol on FoP and the proposed approach would enable industry to have some flexibility with the presentation of the symbol noting legibility requirements would need to be met. FSANZ would consider including best practice information on presentation and legibility in guidance documents should they be prepared.

Question for submitters:

Do you support FSANZ's proposed approach for the presentation and legibility of the HSR symbol? Please provide reasons for your response, including any evidence on consumer use or implementation considerations.

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Appendix 1. Evaluation of the HSR symbol, presentation and placement

A1.1 Introduction

The Health Star Rating (HSR) symbol is intended to be displayed on the front of packaged food to help consumers make informed choices aligned with dietary guidelines.

A1.1.1 HSR Symbol elements and hierarchy of presentation

The current HSR symbol comprises three elements:

- stars element
- energy element
- nutrient element including 3 prescribed nutrients and 1 optional nutrient if appropriate

Optional interpretive terms such as ‘high’ or ‘low’, and percentage daily intake (%DI) may also be presented.

The stars element must always be used where the HSR system is adopted. While the energy and nutrient elements are optional, businesses are encouraged to display as many HSR symbol elements as practicable, consistent with the established hierarchy of display options:

1. Health Star Rating + energy icon + prescribed nutrient icons + 1 optional nutrient icon
2. Health Star Rating + energy icon + prescribed nutrient icons
3. Health Star Rating + energy icon
4. Health Star Rating

Energy and nutrient information may be presented on a per 100 g or 100 mL, per pack, per reference portion, or per serve size basis.

The permitted options for displaying the HSR symbol are illustrated in Figure A1.1, with additional configuration examples provided in Appendix 2.

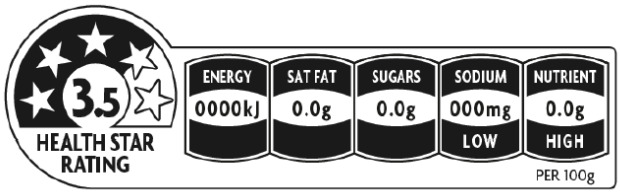
A1.1.2 HSR symbol design principles

The HSR system artwork is trademarked and under the voluntary system must be used in accordance with the 2025 HSR Implementation Guide (Department of Health, Disability & Ageing 2025). While some flexibility is permitted in presentation, businesses are encouraged to present all elements exactly as specified in Appendix 2 without stylisation.

Businesses may determine the placement, size and colour of the symbol, provided legibility requirements are met, and good contrast is maintained (see section 5.2 in the Implementation Guide for further details).

Hierarchy of HSR symbol designs*

1. **HSR + energy icon + 3 prescribed nutrient icons + 1 optional nutrient icon (plus the two optional elements: with and without the use of the terms High / Low and %DI)**



2. **Health Star Rating + energy icon + 3 prescribed nutrient icons**

3. **Health Star Rating + energy icon**

4. **Health Star Rating**

**Per 100 g option displayed*

Figure A1.1. Hierarchy of HSR symbol designs

A1.2 Assessment of HSR symbols on pack

A1.2.1 Assessment of HSR symbol location, placement and symbol elements

A1.2.1.1 Aim

Using a sample of packaged foods sold in Australia, the aim of the assessment was to determine the:

- location of the HSR symbol on the package
- placement of the symbol on the FoP
- symbol elements displayed on the FoP.

A1.2.1.2 Methodology

A1.2.1.2.1 Data

The data used for this analysis was extracted from the Australian Branded Food Database (BFD) in January 2026. Foods with stored label images, categorised as either permitted and intended[7] (7,782) or permitted and not intended[8] (553) to use the HSR system and displayed a HSR symbol on pack formed the data set (8,335 foods). This data was originally generated to monitor uptake of HSR in Australia against the final uptake target (Department of Health, Disability & Ageing, FSANZ and NZ MPI 2026). Only the data sourced directly from in-store collections conducted by FSANZ from Coles, Woolworths, and Aldi stores in the Australian Capital Territory (ACT) between October and mid-November 2025 were used in this analysis due to the availability of product images. The BFD contains common on-pack information for each food such as its statement of ingredients and nutrition information panel (NIP).[9]

The data for the 8,335 extracted foods were reviewed along with their images to capture information on the location and placement of the HSR symbol on-pack and the HSR symbol elements used. All recorded information was subject to peer review for accuracy.

A1.2.1.2.2 Assessment criteria

When determining the location of the HSR symbol, the FoP was considered to be the packaging surface displaying mandatory weight and measures labelling information. This approach was used to provide clarity where front- and back-of-pack distinctions were unclear. It also aligns with the HSR symbol design principles for cylindrical packaging in the Implementation Guide.

Where the HSR symbol was not displayed on the same surface as the weight and measures information but was considered consistent with approach in the Implementation Guide whereby if products were generally displayed with an alternative visible facing side the symbol could be placed on the commonly visible facing side the food was classified as displaying the symbol on the FoP. In all other cases, the HSR symbol location was classified as top, side, bottom, or back of pack.

Placement of the HSR symbol on the FoP was recorded as being displayed in the top or bottom half of the package, and whether it was in the middle or on the left hand or right hand side of the package. Refer to Table A1.1 for the descriptions of the location and placement used in the analysis.

7 Foods intended to display a HSR as part of the voluntary scheme

8 Foods that may display a HSR, but are not considered intended as part of the voluntary scheme

9 For further information see Australian Branded Food Database (FSANZ 2025)

Table A1.1. Description of the location and placement of the HSR symbol on pack

Location on pack	FoP placement
Front	Top half left-hand side
Back	Top half right-hand side
Bottom	Top middle
Top	Bottom half left-hand side
Side	Bottom half right-hand side
	Bottom middle

The HSR symbol elements were described according to those outlined in Table A1.2.

Table A1.2. HSR symbol elements displayed on pack

HSR symbol element	Description
HSR only	Health Star Rating symbol displayed alone
HSR + energy icon	Health Star Rating with energy icon
HSR + energy icon + %DI	Health Star Rating with energy icon and percentage daily intake (%DI)
HSR + energy icon + prescribed nutrient icons	Health Star Rating with energy icon and three prescribed nutrient icons
HSR + energy icon + prescribed nutrient icons + interpretive terms*	Health Star Rating with energy icon and three prescribed nutrient icons and interpretive terms
HSR + energy icon + prescribed nutrient icons + optional nutrient icon	Health Star Rating with energy icon and three prescribed nutrient icons plus one optional nutrient icon
HSR + energy icon + prescribed nutrient icons + optional nutrient icon + interpretive terms	Health Star Rating with energy icon and three prescribed nutrient icons plus one optional nutrient icon and interpretive terms

** Optional interpretive terms may accompany the HSR symbol elements, using 'high' and 'low' in relation to the nutrient icons, and the %DI with energy (for the 'per pack' or 'per [serve size]' presentation).*

A1.2.1.3 Results

A1.2.1.3.1 HSR symbol location

Of the 8,335 foods, 8,112[10] foods (97%) displayed a HSR symbol on the FoP and 223 foods (3%) displayed a HSR symbol in another location only (see Table A1.3).

[10] 175 of these displayed the HSR on the FoP and in a secondary location on pack.

Table A1.3. Number and proportion of foods displaying HSR symbol, by location

HSR symbol location	Food count	%
Front	8,112	97
Back	135	2
Bottom	41	0.5
Side	36	0.4
Top	11	0.1
Total	**8,335**	**100**

The symbol not being presented on the FoP did not appear to be related to packaging material, or the rating.

Packaging material varied across the 223 foods not displaying the HSR symbol on the FoP, with 78 (35%) packaged in trays with a cardboard sleeve or sticker label wrapping the tray, 33 (15%) in cardboard boxes, 19 (9%) in plastic packaging with front and back display panels, and 18 (8%) in round lidded containers with front and back sticker labels.

A high proportion of these foods had a rating ≥3 (82%) similar to those foods with the HSR symbol on the FoP (72% with rating ≥3) (Table A1.4). This suggests the actual rating did not relate to where the symbol was located.

Table A1.4. Number and proportion of foods, by star rating and location

Star rating	FOP		Alternative location	
	Food count	%	Food count	%
0.5	529	7	4	2
1.0	280	3	4	2
1.5	489	6	10	4
2.0	556	7	18	8
2.5	416	5	4	2
3	773	10	23	10
3.5	1,626	20	79	35
4	1,575	19	55	25
4.5	646	8	18	8
5	1,222	15	8	4
Total	**8,112**	**100**	**223**	**100**

A1.2.1.3.2 HSR symbol FoP placement

As shown in Table A1.5, the most common position for the HSR symbol on the FoP was in the bottom half of the package (90%), with 51% displayed on the left-hand side and 35% displayed on the right-hand side. Placement in the top half of the pack was comparatively

uncommon (10%), with similar proportions observed on the left hand (5%) and right hand (5%) sides. Central placement was rare, particularly in the top middle position (1%).

Table A1.5. Number and proportion of foods displaying a HSR symbol, by FoP placement

FoP placement	Food count	%
Bottom half left-hand side	4,114	51
Bottom half right-hand side	2,837	35
Bottom middle	326	4
Top half left-hand side	399	5
Top half right-hand side	390	5
Top middle	46	1
Total	**8,112**	**100**

A1.2.1.3.3 HSR symbol elements on FoP

As shown in Table A1.6, most foods with the symbol on the FoP displayed the HSR star element only (5,761; 71%). This was followed by 1,263 foods (16%) displaying the HSR star element with energy and prescribed nutrients, and 980 foods (12%) displaying the HSR star element with an energy icon, with 2% of these also displaying DI information. Only a small proportion of foods incorporated interpretive elements, such as 'low' or 'high' or a positive nutrient icon.

Table A1.6. Number and proportion of foods displaying HSR on FoP, by HSR symbol element

HSR symbol element	Food count	%[#]
HSR	5,761	71
HSR + energy icon	832	10
HSR + energy icon + %DI	148	2
HSR + prescribed nutrients	1,263	16
HSR + prescribed nutrients + interpretive terms*	2	0.02
HSR + prescribed nutrients + optional nutrient	78	1
HSR + prescribed nutrients + optional nutrient + interpretive terms	28	0.3
Total	**8,112**	**100**

[#] *Minor discrepancies in percentage totals are due to rounding.*
* *Optional interpretive terms may accompany the HSR symbol elements, using 'high' and 'low' in relation to the nutrient icons, and the %DI with energy (for the 'per pack' or 'per [serve size]' presentation).*

A1.2.1.3.4 HSR symbol element type by FoP placement

Table A1.7 shows the HSR star element only, the HSR including the energy icon and the HSR incorporating prescribed nutrients were most commonly positioned in the bottom half of the pack (5,066; 88%), (941; 96 %), and (1,270; 93%), respectively.

While HSR symbols incorporating optional nutrient icons and/or interpretive elements, were infrequent overall, they appeared more commonly in the top-half of the pack.

Table A1.7. Number and proportion of HSR symbol elements displayed on foods, by FoP placement (n=8,112)

HSR FoP location	HSR	HSR + Energy (including %DI)	HSR + prescribed nutrients + interpretive elements	HSR + prescribed + optional nutrient + interpretive elements
	n=x (%)[#]	n=x (%)[#]	n=x (%)[#]	n=x (%)[#]
Bottom half left hand side	3,099 (54%)	492 (50%)	507 (40%)	16 (15%)
Bottom half right hand side	1,815 (32%)	413 (42%)	590 (47%)	19 (18%)
Bottom middle	152 (3%)	36 (4%)	132 (10%)	6 (6%)
Top half left hand side	346 (6%)	5 (1%)	3 (0.2%)	45 (42%)
Top half right hand side	320 (6%)	34 (3)	30 (2%)	6 (6%)
Top middle	29 (1%)		3 (0.2%)	14 (13%)
Total	**5,761**	**980**	**1,265**	**106**

[#] *Minor discrepancies in percentage totals are due to rounding.*

A1.2.1.4 Summary

Overall, the results highlight consistent patterns in the on-pack use of the HSR symbol in Australia.

- Most foods displayed the HSR symbol on the FoP (97%) compared with other locations.
- There was a marked preference for displaying the HSR symbol in the bottom half of the FoP (90%) and either on the left- or right-hand sides rather than the middle.
- The HSR star element only was most commonly used on foods displaying a symbol on the FoP (71%) with limited use of other elements.
- FoP placement patterns were broadly consistent across most symbol types, except the small number of symbols with optional nutrient icons and/or additional elements were more commonly found in the top half of the package.

A1.2.1.5 Limitations

Several study limitations should be considered when interpreting these findings.

The assessment was:

- limited to foods sold at three supermarkets in the ACT that we had images of and may not reflect the broader Australian or the New Zealand market.
- undertaken as a desktop review, therefore judgments regarding HSR location and on-pack placement relied solely on images captured during in-store data collection rather than physical examination of packaging. Additionally, assessor interpretation was required for certain packaging formats, particularly in determining what constituted the FoP for cylindrical containers, or defining top, back, bottom, or side panels on other packaging shapes such as trays with label sleeves. However, assessors consistently applied agreed interpretations across the data set.

A1.2.2 Assessment of HSR symbol presentation and legibility

A1.2.2.1 Aim

The aim of the assessment was to evaluate the presentation and legibility of the HSR symbol using a sample of packaged foods sold in Australia.

A1.2.2.2 Methodology

A1.2.2.2.1 Sample selection

A sample of 811 foods (10%) was randomly selected[11] from the 8,112 foods displaying a HSR on the FoP analysed above. The sample was stratified to reflect the proportional distribution of foods with each HSR symbol element (i.e. HSR stars element only, HSR stars + energy icon etc) as shown in Table A1.8.

Table A1.8. Proportional distribution of sample across HSR symbol element types

HSR symbol element types	Food count	Sample count	%#
HSR	5,761	576	71
HSR + energy icon	832	83	10
HSR + energy icon + %DI	148	15	2
HSR + prescribed nutrients	1,263	126	16
HSR + prescribed nutrients + interpretive terms*	2		
HSR + prescribed nutrients + optional nutrient	78	8	1
HSR + prescribed nutrients + optional nutrient + interpretive terms	28	3	0.3
Total	**8,112**	**811**	**100**

 # Minor discrepancies in percentage totals are due to rounding.
** Optional interpretive terms may accompany the HSR symbol elements, using 'high' and 'low' in relation to the nutrient icons, and the %DI for energy (for the 'per pack' or 'per [serve size]' presentation).*

A1.2.2.2.2 Assessment criteria

Each HSR symbol was assessed against ten predefined criteria derived from the Implementation Guide presentation and display recommendations (see section 5.2 of the Guide) which included the legibility requirements in section 1.2.1—24 of the Australia New Zealand Food Standards Code (the Code). The assessment criteria are summarised in Table A1.9. The detailed conditions used to determine whether the HSR symbol was consistent with the criteria are provided in Appendix 3. FSANZ notes the Implementation Guide provides limited information on ways to produce legible symbols and what for example a symbol with 'good contrast to the background' might look like. Consequently, it was challenging to both develop the criteria and assess the symbols against the criteria as subjective interpretation was required. See section A1.2.2.2.4 for details on how the assessors developed an approach to consistently assess the symbols.

[11] Randomised product selection was undertaken using the following Excel formula:
=TAKE(SORTBY($A$1:$A$5761, RANDARRAY(ROWS($A$1:$A$5761))), X).
In this formula, X represents the number of products required to be randomly selected from the total list of products for each symbol type (e.g. HSR element only, n = 5,761).

As the assessment was undertaken using online images, assessment of criteria 10 (size and scale) was limited to identifying symbols that were obviously very small in relation to the size of the pack. On-pack analysis would be needed to undertake a more detailed analysis of symbol size.

Table A1.9. HSR symbol presentation and legibility assessment criteria

Assessment criteria	Criteria description
1. Shape / layout / proportions	The symbol correctly applies the trademarked symbol shape, layout, and relative proportions of each element.
2. Border/differentiation	The symbol is clearly differentiated from the packaging through the use of a border or contrasting panel.
3. Typeface and sentence case	The symbol uses a clear, legible typeface and applies correct sentence case.
4. Clarity	The symbol is presented with sufficient clarity to support ease of reading.
5. Component spacing	Spacing between symbol components (lines, text, numerals, and elements) aligns with the prescribed layout.
6. Visibility due to placement	The symbol is placed in a visible, distinguishable, and unobstructed location on the packaging.
7. Colour contrast	The symbol is easily visible due to appropriate colour selection and contrast.
8. Visibility and prominence against packaging imagery	The symbol is clearly visible, easily noticeable and distinguishable, and stands out from the surrounding packaging imagery.
9. Readability of text	The symbol's colour choices and design support legibility and ease of reading.
10. Size and scale	The symbol is appropriately sized and scaled relative to the package or label dimensions.

A1.2.2.2.3 Additional HSR symbol information

Additional descriptive features of the HSR symbol were also recorded to support further contextual analysis. This included information on whether the HSR symbol:

- was presented in black and white, including reverse black and white printing
- background or shading was the same or a similar colour to the surrounding product packaging
- incorporated three or more colours, and
- was positioned directly adjacent to any on-pack nutrition content and/or health claims.

A1.2.2.2.4 Assessment approach

A pilot assessment of 100 foods was initially undertaken to evaluate the suitability and clarity of the assessment criteria. HSR symbols were independently reviewed by four assessors using a cross-over approach, with each symbol reviewed by two assessors. This approach examined consistency in the application of the criteria given the subjective nature of some criteria and identified any differences in interpretation requiring discussion and agreement.

Based on pilot outcomes, the criteria were refined to remove ambiguity and reduce inconsistencies in interpretation. The remaining 711 foods were then assessed by the same four assessors using a mixed approach comprising 50% cross-over review and 50% individual assessment. Percent agreement in the assessments across criteria ranged from

87.4%–99.7%, indicating good reliability (>80%; McHugh 2012)[12] . All disagreements were resolved through discussion.

A1.2.2.3 Results

A1.2.2.3.1 Criteria assessment outcomes

Overall, 596 (73%) of the 811 symbols assessed were consistent with all ten criteria, with the remaining 215 (27%) inconsistent with at least one criterion. As shown in Table A1.10, there was also a high level of consistency across each individual criterion. Consistency rates exceeded 94% for seven of the ten criteria, and were particularly high for border and differentiation, clarity, colour contrast, visibility due to placement, visibility and prominence against packaging imagery, and size and scale (all ≥97%). Lower consistency rates were observed for shape, layout and proportions (86%), typeface and sentence case (86%), and component spacing (89%). Issues affecting presentation and legibility were limited to specific criteria rather than being widespread across all criteria.

Table A1.10. Summary of outcomes by assessment criteria (n=811)

Assessment Criteria	Consistent		Inconsistent	
	Count	%	Count	%
1. Shape / layout / proportions	699	86	112	14
2. Border/differentiation	803	99	8	1
3. Typeface and sentence case	699	86	112	14
4. Clarity	797	98	14	2
5. Component spacing	725	89	86	11
6. Visibility due to placement	789	97	22	3
7. Colour contrast	794	98	17	2
8. Visibility and prominence against packaging imagery	801	99	10	1
9. Readability of text	763	94	48	6
10. Size and scale	797	98	14	2

As shown in Table A1.11, further analysis by symbol type shows 85% overall alignment of the HSR star element only across all ten criteria, compared with 46% for all other symbol types. The biggest differences were identified for shape/layout/proportions, typeface and sentence case, component spacing, and readability.

[12] Although another statistic called Fleiss' kappa adjusts for chance agreement, it was not used here because it becomes unreliable when most ratings fall into the same category (Derksen et al. 2024). Given the high number of consistent ratings, percent agreement provides a clearer reflection of assessor consistency.

Table A1.11. Consistency outcomes by assessment criteria: HSR star element only (n = 576) compared with other symbol types (n = 235)

Assessment Criteria	HSR star element only (n=576)		All other symbol types* (n=235)	
	Consistent n=x (%)	Inconsistent n=x (%)	Consistent n=x (%)	Inconsistent n=x (%)
1. Shape / layout / proportions	565 (98%)	11 (2%)	134 (57%)	101 (43%)
2. Border/differentiation	568 (99%)	8 (1%)	235 (100%)	
3. Typeface and sentence case	565 (98%)	11 (2%)	134 (57%)	101 (43%)
4. Clarity	562 (98%)	14 (2%)	235 (100%)	
5. Component spacing	569 (99%)	7 (1%)	157 (67%)	78 (33%)
6. Visibility due to placement	563 (98%)	13 (2%)	226 (96%)	9 (4%)
7. Colour contrast	567 (98%)	9 (2%)	227 (97%)	8 (3%)
8. Visibility and prominence against packaging imagery	568 (99%)	8 (1%)	233 (99%)	2 (1%)
9. Readability of text	550 (95%)	26 (5%)	213 (91%)	22 (9%)
10. Size and scale	565 (98%)	11 (2%)	232 (99%)	3 (1%)
Overall consistency (all 10 criterion)	488 (85%)	88 (15%)	108 (46%)	127 (54%)

** All other symbol types include: HSR displayed with an energy icon; prescribed nutrients; or prescribed nutrients with optional nutrients, with or without interpretive terms.*

A1.2.2.3.2 Additional HSR symbol information

Table A1.12 summarises the additional descriptive symbol information collated for each of the 811 foods. Key findings include:

- around one-third of symbols (37%) were presented in black and white, with the majority (63%) using an alternative colour scheme.
- approximately one-fifth of symbols had the same or similar background colour to the food packaging (20%), with a slightly smaller proportion displaying the same or similar stars shading to the packaging (18%).
- only a very small proportion of symbols (4%) were presented in three or more colours.
- 10% of HSR symbols were displayed next to nutrition content and/or health claims, with 96% of these displaying a rating of ≥3 stars.

Table A1.12. Summary of additional supplementary information assessed (n=811)

Additional information	Yes		No	
	Count	%	Count	%
Symbol presented in black and white	301	37	510	63
Symbol background or shading is the same colour(s), or similar as the food packaging			503	62
• Symbol background	160	20		
• Symbol shading	148	18		
Symbol presented in 3 or more colours	33	4	778	96
Symbol is positioned next to on-pack nutrition content and/or health claims	78	10	733	90

Of the 301 symbols presented in black and white, 246 (82%) were consistent with all ten criteria. Consistency was substantially higher for black and white HSR star element only, with 90% meeting all criteria, compared with 53% of other black and white symbol types. Inconsistency with criteria across black and white symbols was largely due to stylisation of the symbol, due to inappropriate sizing (too small) or poor clarity.

In contrast, of the 510 symbols presented in colour, 350 (69%) were consistent with all ten criteria. The consistency for coloured symbols with HSR star element only was 81%, compared with 43% for other coloured symbol types, which were more frequently inconsistent with at least one criterion. Of the remaining 160, just over half (53%) used a stylised version of the trademark symbol, while almost one third (30%) had reduced readability associated with colour choice.

Across the 215 symbols inconsistent with the criteria, 23% were presented on a background that was the same or a similar colour to the packaging, while 13% used shading that closely matched the packaging colour.

A1.2.2.4 Summary

Key findings include:

- Almost three quarters (73%) of the 811 symbols assessed were consistent with all ten assessment criteria. The criteria shape, layout and proportions; typeface and sentence case; and component spacing were the areas of most inconsistency.
- There were less frequent inconsistencies with colour contrast, text readability, visibility and prominence against packaging imagery, and size.
- About one third (37%) of symbols assessed were presented in black and white.
- There was a higher level of consistency for symbols with the stars element only (85%) compared with all other symbol types (46%).
- There was a higher level of consistency with all criteria for symbols with the stars element only compared with other symbol types, irrespective of whether they were presented in black and white or other colours.
- Nutrition content and /or health claims were displayed next to the HSR symbol on 10% of products assessed. Of these 96% had a HSR ≥3 stars.

A1.2.2.5 Limitations

Several study limitations should be considered when interpreting these findings. These include:

- The analysis was limited to foods sold at three supermarkets in the ACT that we had images of and may not reflect the broader Australian or the New Zealand market.
- Some assessment criteria required subjective judgment, which may have introduced variability despite the use of defined criteria and consensus discussions.
- The HSR symbols were assessed using product images, which may not fully reflect how the symbol appears on pack under real-world viewing conditions.
- The sample represents approximately 10% of the 8,112 products displaying a HSR on the FoP, and while randomised and stratified, may not capture all variation across the full dataset.

Appendix 2: Presentation of the HSR symbol on pack

Note: Images shown here as left facing may also be presented as right facing, while retaining the nutrient order shown below. Symbols may also be presented in a vertical display and may use an inverse print format.

Figure A2.1: HSR + energy icon + 3 prescribed nutrient icons + 1 optional nutrient icon (plus the two optional elements: with and without the use of the terms High / Low and %DI)

Figure A2.2: Health Star Rating + energy icon + 3 prescribed nutrient icons

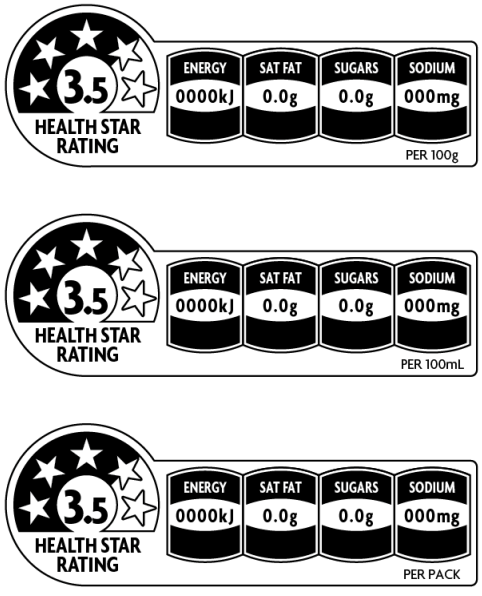


Figure A2.3: Health Star Rating + energy icon

Figure A.2.4: Health Star Rating

Figure A2: Configuration options for display of the HSR symbol on pack

Appendix 3: HSR symbol presentation and legibility assessment criteria

Table A3.1 Assessment criteria for HSR symbol presentation and legibility

Criteria	Criteria assessment guide
1. Correct symbol shape, layout and relative proportions of each element applied	**Consistent:** – Shape and layout of symbol aligns with the Implementation Guide images. – Stars portion more prominent than the energy and nutrient elements. – Background shading of stars correct. – Words “HEALTH STAR RATING” appear prominently below the stars. – Energy & nutrient names sit in upper third of each information cell. – Inverse printing/reverse shading correctly applied. – Upper and lower thirds of each cell are shaded, middle third must have a contrasting background colour to the shaded areas. – For vertical display symbols – the energy and nutrient icons do not touch. Reference portion is bottom, centre. – For horizontal formats – the reference portion is bottom right. **Inconsistent:** – Symbol does not fully comply with the symbol's required shape and layout aspects as presented in the Implementation Guide images. – Inverse printing/reverse shading incorrectly applied. – Complete circle border around the HSR star component, separating it from the tail elements.
2. Border differentiation	**Consistent:** – Symbol is differentiated from packaging by use of an outline border or white/coloured contrasting panel. **Inconsistent:** – No differentiation of symbol from background by use of border or white/coloured panel.
3. Typeface and sentence case	**Consistent:** – Capital letters for “HEALTH STAR RATING”, “ENERGY” and Nutrient names, optional elements (i.e. HIGH/LOW, %DI) and reference measures (i.e. PER PACK). – Lowercase letters for units of measurement for energy and nutrient values and reference values (i.e. 100 ml). **Inconsistent:** – Does not comply with typeface and case aspects as presented in the Implementation Guide images.
4. Symbol is presented with good clarity	**Consistent:** – Symbol is clear, with no elements appearing blurred, distorted, compressed, or pixelated. **Inconsistent:** – Symbol clarity is reduced due to blurred, distorted, compressed, or pixelated elements.
5. Symbol component spacing	**Consistent:** – Spacing of symbol components (lines, words, numerals, elements) aligns with Implementation Guide images. **Inconsistent:** – Does not comply with component spacing as presented in the Style Guide images.

Criteria	Criteria assessment guide
6. Visible, distinguishable and unobstructed placement of symbol	**Consistent:** – Symbol visibility is not impaired due to the physical package design, when displayed in accordance with guidelines in the Implementation Guide. **Inconsistent:** – Symbol visibility is impaired due to positioning on package/label. E.g. is positioned across corners, folds, seams, or across irregular surfaces in such a way that there is poor symbol visibility.
7. Contrast **(striking difference)**	**Consistent:** – Symbol is presented with appropriate colour contrast (such as black and white, or clearly distinguishable colour combinations of dark/light). A white or contrasting colour panel can be used be used behind the symbol. **Inconsistent:** – Symbol lacks appropriate colour contrast, i.e. colours are too similar in tone, or poorly paired (e.g. orange/green, green/red, similar shades like blue/teal).
8. Visibility and prominence against packaging imagery **(easy to notice)**	**Consistent:** – The symbol is clearly visible, easily noticeable and distinguishable, and stands out from the surrounding packaging imagery. **Inconsistent:** – The symbol lacks clear visibility due to busy or competing packaging imagery, which diminishes its prominence and distinguishability.
9. Readability of text **(legible and easy to read)**	**Consistent:** – Colour choices support readability, with all text elements clearly distinguishable and easy to read. **Inconsistent:** – Colour choices reduce clarity and readability of text due to poor contrast (i.e. colours that clash, vibrate, appear too pale, or are too similar to the background).
10. Symbol size and scale	**Consistent:** – Symbol size is appropriately scaled according to the package/label size. **Inconsistent:** – Symbol is not appropriately scaled for the package/label size (i.e. too small), resulting in reducing legibility.

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