MEAT, POULTRY & DAIRY
Sustainability Accounting Standard

Sustainable Industry Classification System™ (SICS™) #CN0102

Prepared by the Sustainability Accounting Standards Board®

June 2015
Provisional Standard

www.sasb.org
MEAT, POULTRY & DAIRY
Sustainability Accounting Standard

About SASB
The Sustainability Accounting Standards Board (SASB) provides sustainability accounting standards for use by publicly-listed corporations in the U.S. in disclosing material sustainability information for the benefit of investors and the public. SASB standards are designed for disclosure in mandatory filings to the Securities and Exchange Commission (SEC), such as the Form 10-K and 20-F. SASB is an independent 501(c)3 non-profit organization. Through 2016, SASB is developing standards for more than 80 industries in 10 sectors.

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INTRODUCTION

Purpose & Structure

This document contains the SASB Sustainability Accounting Standard (SASB Standard) for the Meat, Poultry & Dairy industry.

SASB Sustainability Accounting Standards are comprised of (1) disclosure guidance and (2) accounting standards on sustainability topics for use by U.S. and foreign public companies in their annual filings (Form 10-K or 20-F) with the U.S. Securities and Exchange Commission (SEC). To the extent relevant, SASB Standards may also be applicable to other periodic mandatory filings with the SEC, such as the Form 10-Q, Form S-1, and Form 8-K.

SASB Standards identify sustainability topics at an industry level, which may constitute material information—depending on a company's specific operating context—for a company within that industry. SASB Standards are intended to provide guidance to company management, which is ultimately responsible for determining which information is material and should therefore be included in its Form 10-K or 20-F and other periodic SEC filings.

SASB Standards provide companies with standardized sustainability metrics designed to communicate performance on industry level sustainability topics. When making disclosure on sustainability topics, companies can use SASB Standards to help ensure that disclosure is standardized and therefore decision-useful, relevant, comparable, and complete.

SASB Standards are intended to constitute “suitable criteria” as defined by AT 101.23-.321 and referenced in AT 701, as having the following attributes:

- Objectivity—Criteria should be free from bias.
- Measurability—Criteria should permit reasonably consistent measurements, qualitative or quantitative, of subject matter.
- Completeness—Criteria should be sufficiently complete so that those relevant factors that would alter a conclusion about subject matter are not omitted.
- Relevance—Criteria should be relevant to the subject matter.

Industry Description

The Meat, Poultry & Dairy industry produces raw and processed animal products, including meats, eggs, and dairy products, for human and animal consumption. Key activities include animal raising, slaughtering, processing, and packaging. Companies are vertically integrated to varying degrees, depending upon the type of animal produced. Large industry operators typically rely on contract or independent farmers to supply their animals, and may have varying degrees of control over their operations. The industry sells products primarily to the Processed Foods industry and to retail distributors that distribute finished products to key end-markets including restaurants, livestock and pet feed consumers, and grocery retailers. The industry’s largest companies have international operations, although the U.S. accounts for a large share of meat, poultry, and dairy production.
Guidance for Disclosure of Sustainability Topics in SEC Filings

1. **Industry-Level Sustainability Topics**

For the Meat, Poultry & Dairy industry, SASB has identified the following sustainability disclosure topics:

- Greenhouse Gas Emissions
- Energy Management
- Water Withdrawal
- Land Use & Ecological Impacts
- Food Safety
- Workforce Health & Safety
- Antibiotic Use in Animal Production
- Animal Care & Welfare
- Environmental & Social Impacts of Animal Supply Chains
- Environmental Risks in Animal Feed Supply Chains

2. **Company-Level Determination and Disclosure of Material Sustainability Topics**

Sustainability disclosures are governed by the same laws and regulations that govern disclosures by securities issuers generally. According to the U.S. Supreme Court, a fact is material if, in the event such fact is omitted from a particular disclosure, there is “a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the ‘total mix’ of the information made available.”

SASB has attempted to identify those sustainability topics that are reasonably likely to have a material effect on the financial condition or operating performance of companies within each SICS industry. SASB recognizes, however, that each company is ultimately responsible for determining what information should be disclosed within the context of Regulation S-K and other guidance.

Regulation S-K, which sets forth certain disclosure requirements associated with Form 10-K and other SEC filings, requires companies, among other things, to describe in the Management’s Discussion and Analysis of Financial Condition and Results of Operations (MD&A) section of Form 10-K “any known trends or uncertainties that have had or that the registrant reasonably expects will have a material favorable or unfavorable impact on net sales or revenues or income from continuing operations. If the registrant knows of events that will cause a material change in the relationship between costs and revenues (such as known future increases in costs of labor or materials or price increases or inventory adjustments), the change in the relationship shall be disclosed.”

Furthermore, Instructions to Item 303 state that the MD&A “shall focus specifically on material events and uncertainties known to management that would cause reported financial information not to be necessarily indicative of future operating results or of future financial condition.”

The SEC has provided guidance for companies to use in determining whether a trend or uncertainty should be disclosed. The two-part assessment –prescribed by the SEC, based on probability and magnitude, can be applied to the topics included within this standard:

- First, a company is not required to make disclosure about a known trend or uncertainty if its management determines that such trend or uncertainty is not reasonably likely to occur.

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• Second, if a company’s management cannot make a reasonable determination of the likelihood of an event or uncertainty, then disclosure is required unless management determines that a material effect on the registrant’s financial condition or results of operation is not reasonably likely to occur.

3. Sustainability Accounting Standard Disclosures in Form 10-K

a. Management’s Discussion and Analysis

For purposes of comparability and usability, companies should consider making disclosure on sustainability topics in the MD&A, in a sub-section titled “Sustainability Accounting Standards Disclosures.”

b. Other Relevant Sections of Form 10-K

In addition to the MD&A section, it may be relevant for companies to disclose sustainability information in other sections of Form 10-K, including, but not limited to:

• Description of business—Item 101 of Regulation S-K requires a company to provide a description of its business and its subsidiaries. Item 101(c)(1)(xii) expressly requires disclosure regarding certain costs of complying with environmental laws:

Appropriate disclosure also shall be made as to the material effects that compliance with Federal, State and local provisions which have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, may have upon the capital expenditures, earnings and competitive position of the registrant and its subsidiaries.

• Legal proceedings—Item 103 of Regulation S-K requires companies to describe briefly any material pending or contemplated legal proceedings. Instructions to Item 103 provide specific disclosure requirements for administrative or judicial proceedings arising from laws and regulations that target discharge of materials into the environment or that are primarily for the purpose of protecting the environment.

• Risk factors—Item 503(c) of Regulation S-K requires filing companies to provide a discussion of the most significant factors that make an investment in the registrant speculative or risky, clearly stating the risk and specifying how a particular risk affects the particular filing company.

c. Rule 12b-20

Securities Act Rule 408 and Exchange Act Rule 12b-20 require a registrant to disclose, in addition to the information expressly required by law or regulation, “such further material information, if any, as may be necessary to make the required statements, in light of the circumstances under which they are made, not misleading.”


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SEC (Release Nos. 33-8056, 34-45321; FR-61) Commission Statement about Management’s Discussion and Analysis of Financial Condition and Results of Operations: “We also want to remind registrants that disclosure must be both useful and understandable. That is, management should provide the most relevant information and provide it using language and formats that investors can be expected to understand. Registrants should be aware also that investors will often find information relating to a particular matter more meaningful if it is disclosed in a single location, rather than presented in a fragmented manner throughout the filing.”
Guidance on Accounting for Sustainability Topics

For each sustainability topic included in the Meat, Poultry & Dairy industry Sustainability Accounting Standard, SASB identifies accounting metrics.

SASB recommends that each company consider using these sustainability accounting metrics when preparing disclosures on the sustainability topics identified herein;

As appropriate—and consistent with Rule 12b-20—when disclosing a sustainability topic identified by this Standard, companies should consider including a narrative description of any material factors necessary to ensure completeness, accuracy, and comparability of the data reported. Where not addressed by the specific accounting metrics, but relevant, the registrant should discuss the following, related to the topic:

- The registrant’s strategic approach to managing performance on material sustainability issues;
- The registrant’s relative performance with respect to its peers;
- The degree of control the registrant has;
- Any measures the registrant has undertaken or plans to undertake to improve performance; and
- Data for the registrant’s last three completed fiscal years (when available).

SASB recommends that registrants use SASB Standards specific to their primary industry as identified in the Sustainable Industry Classification System (SICS™). If a registrant generates significant revenue from multiple industries, SASB recommends that it also consider sustainability topics that SASB has identified for those industries and disclose the associated SASB accounting metrics.

In disclosing to SASB Standards, it is expected that registrants disclose with the same level of rigor, accuracy, and responsibility as they apply to all other information contained in their SEC filings.

Users of the SASB Standards

The SASB Standards are intended to provide guidance for companies that engage in public offerings of securities registered under the Securities Act of 1933 (the Securities Act) and those that issue securities registered under the Securities Exchange Act of 1934 (the Exchange Act), for use in SEC filings, including, without limitation, annual reports on Form 10-K (Form 20-F for foreign issuers), quarterly reports on Form 10-Q, current reports on Form 8-K, and registration statements on Forms S-1 and S-3. Disclosure with respect to the SASB Standards is not required or endorsed by the SEC or other entities governing financial reporting, such as FASB, GASB, or IASB.

6 SEC Rule 12b-20: “In addition to the information expressly required to be included in a statement or report, there shall be added such further material information, if any, as may be necessary to make the required statements, in the light of the circumstances under which they are made, not misleading.”

7 Registration under the Securities Exchange Act of 1934 is required (1) for securities to be listed on a national securities exchange such as the New York Stock Exchange, the NYSE Amex, and the NASDAQ Stock Market or (2) if (A) the securities are equity securities and are held by more than 2,000 persons (or 500 persons who are not accredited investors) and (B) the company has more than $10 million in assets.
Scope of Disclosure

Unless otherwise specified, SASB recommends:

- That a registrant disclose on sustainability issues and metrics for itself and for entities that are consolidated for financial reporting purposes as defined by accounting principles generally accepted in the United States for consistency with other accompanying information within SEC filings;\(^8\)

- That for consolidated entities, disclosures be made, and accounting metrics calculated, for the whole entity, regardless of the size of the minority interest; and

- That information from unconsolidated entities not be included in the computation of SASB accounting metrics. A registrant should disclose, however, information about unconsolidated entities to the extent that the registrant considers the information necessary for investors to understand the effect of sustainability topics on the company's financial condition or operating performance (typically, this disclosure would be limited to risks and opportunities associated with these entities).

Reporting Format

Use of Financial Data

In instances where accounting metrics, activity metrics, and technical protocols in this standard incorporate financial data (e.g., revenues, cost of sales, expenses recorded and disclosed for fines, etc.), such financial data shall be prepared in accordance with the accounting principles generally accepted in the United States of America ("US GAAP") and be consistent with the corresponding financial data reported within the registrant's SEC filings. Should accounting metrics, activity metrics and technical protocols in this standard incorporate disclosure of financial data that is not prepared in accordance with US GAAP, the registrant shall disclose such information in accordance with the SEC Regulation G.

Activity Metrics and Normalization

SASB recognizes that normalizing accounting metrics is important for the analysis of SASB disclosures.

SASB recommends that a registrant disclose any basic business data that may assist in the accurate evaluation and comparability of disclosure, to the extent that they are not already disclosed in the Form 10-K (e.g., revenue, EBITDA, etc.).

Such data—termed “activity metrics”—may include high-level business data such as total number of employees, quantity of products produced or services provided, number of facilities, or number of customers. It may also include industry-specific data such as plant capacity utilization (e.g., for specialty chemical companies), number of transactions

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\(^8\) See US GAAP consolidation rules (Section 810).
Activity metrics disclosed should:

- Convey contextual information that would not otherwise be apparent from SASB accounting metrics.
- Be deemed generally useful for an investor relying on SASB accounting metrics in performing their own calculations and creating their own ratios.
- Be explained and consistently disclosed from period to period to the extent they continue to be relevant. However, a decision to make a voluntary disclosure in one period does not obligate a continuation of that disclosure if it is no longer relevant or if a better metric becomes available.9

Where relevant, SASB recommends specific activity metrics that—at a minimum—should accompany SASB accounting metric disclosures.

<table>
<thead>
<tr>
<th>ACTIVITY METRIC</th>
<th>CATEGORY</th>
<th>UNIT OF MEASURE</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of processing and manufacturing facilities</td>
<td>Quantitative</td>
<td>Number</td>
<td>CN0102-A</td>
</tr>
<tr>
<td>Animal protein production, by category; percentage outsourced10</td>
<td>Quantitative</td>
<td>Metric tons (t), Number/head, or Gallons; Percentage (%)</td>
<td>CN0102-B</td>
</tr>
</tbody>
</table>

Units of Measure

Unless specified, disclosures should be reported in International System of Units (SI units).

Uncertainty

SASB recognizes that there may be inherent uncertainty when disclosing certain sustainability data and information. This may be related to variables such as the reliance on data from third-party reporting systems and technologies, or the unpredictable nature of climate events. Where uncertainty around a particular disclosure exists, SASB recommends that the registrant should consider discussing its nature and likelihood.

Estimates

SASB recognizes that scientifically-based estimates, such as the reliance on certain conversion factors or the exclusion of de minimis values, may occur for certain quantitative disclosures. Where appropriate, SASB does not discourage the use of such estimates. When using an estimate for a particular disclosure, SASB expects that the registrant discuss its nature and substantiate its basis.

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10 Note to CN0102-11—Categories include, but are not limited to, chicken, pork, beef, dairy products, and shell eggs. Units of measure shall be appropriate to product category.
Timing

Unless otherwise specified, disclosure shall be for the registrant’s fiscal year.

Limitations

There is no guarantee that SASB Standards address all sustainability impacts or opportunities associated with a sector, industry, or company, and therefore, a company must determine for itself the topics—sustainability-related or otherwise—that warrant discussion in its SEC filings.

Disclosure under SASB Standards is voluntary. It is not intended to replace any legal or regulatory requirements that may be applicable to user operations. Where such laws or regulations address legal or regulatory topics, disclosure under SASB Standards is not meant to supersede those requirements. Disclosure according to SASB Standards shall not be construed as demonstration of compliance with any law, regulation, or other requirement.

SASB Standards are intended to be aligned with the principles of materiality enforced by the SEC. However, SASB is not affiliated with or endorsed by the SEC or other entities governing financial reporting, such as FASB, GASB, or IASB.

Forward-looking Statements

Disclosures on sustainability topics can involve discussion of future trends and uncertainties related to the registrant’s operations and financial condition, including those influenced by external variables (e.g., environmental, social, regulatory, and political). Companies making such disclosures should familiarize themselves with the safe harbor provisions of Section 27A of the Securities Act and Section 21E of the Exchange Act, which preclude civil liability for material misstatements or omissions in such statements if the registrant takes certain steps, including, among other things, identifying the disclosure as “forward-looking” and accompanying such disclosure with “meaningful cautionary statements identifying important factors that could cause actual results to differ materially from those in the forward-looking statements.”

The following sections contain the disclosure guidance associated with each accounting metric such as guidance on definitions, scope, accounting, compilation, and presentation.

The term “shall” is used throughout this document to indicate those elements that reflect requirements of the Standard. The terms “should” and “may” are used to indicate guidance, which, although not required, provides a recommended means of disclosure.
<table>
<thead>
<tr>
<th>TOPIC</th>
<th>ACCOUNTING METRIC</th>
<th>CATEGORY</th>
<th>UNIT OF MEASURE</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenhouse Gas Emissions</td>
<td>Gross global Scope 1 emissions</td>
<td>Quantitative</td>
<td>Metric tons (t) CO₂-e</td>
<td>CN0102-01</td>
</tr>
<tr>
<td></td>
<td>Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emission-reduction targets, and an analysis of performance against those targets</td>
<td>Discussion &amp; Analysis</td>
<td>n/a</td>
<td>CN0102-02</td>
</tr>
<tr>
<td>Energy Management</td>
<td>Total energy consumed, percentage grid electricity, percentage renewable</td>
<td>Quantitative</td>
<td>Gigajoules (GJ), Percentage (%)</td>
<td>CN0102-03</td>
</tr>
<tr>
<td>Water Withdrawal</td>
<td>(1) Total water withdrawn and (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress</td>
<td>Quantitative</td>
<td>Cubic meters (m³), Percentage (%)</td>
<td>CN0102-04</td>
</tr>
<tr>
<td></td>
<td>Discussion of risks associated with water withdrawal and description of strategies and practices to mitigate those risks</td>
<td>Discussion and Analysis</td>
<td>n/a</td>
<td>CN0102-05</td>
</tr>
<tr>
<td>Land Use &amp; Ecological Impacts</td>
<td>Number of incidents of non-compliance with water-quality permits, standards, and regulations</td>
<td>Quantitative</td>
<td>Number</td>
<td>CN0102-06</td>
</tr>
<tr>
<td></td>
<td>Discussion of risks associated with water discharges and description of strategies and practices to mitigate those risks</td>
<td>Discussion &amp; Analysis</td>
<td>n/a</td>
<td>CN0102-07</td>
</tr>
<tr>
<td></td>
<td>Amount of animal litter and manure generated, percentage managed according to a nutrient management plan</td>
<td>Quantitative</td>
<td>Metric tons (t), Percentage (%)</td>
<td>CN0102-08</td>
</tr>
<tr>
<td></td>
<td>Percentage of pasture and grazing land managed to NRCS Conservation Plan criteria</td>
<td>Quantitative</td>
<td>Percentage by hectares (%)</td>
<td>CN0102-09</td>
</tr>
<tr>
<td></td>
<td>Animal protein production from concentrated animal feeding operations (CAFO)</td>
<td>Quantitative</td>
<td>Metric tons (t)</td>
<td>CN0102-10</td>
</tr>
<tr>
<td>Food Safety</td>
<td>Number of recalls issued, total weight of products recalled¹¹</td>
<td>Quantitative</td>
<td>Number, Metric tons (t)</td>
<td>CN0102-11</td>
</tr>
<tr>
<td></td>
<td>Global Food Safety Initiative (GFSI) audit conformance: (1) major non-conformance rate and associated corrective action rate and (2) minor non-conformance rate and associated corrective action rate</td>
<td>Quantitative</td>
<td>Rate</td>
<td>CN0102-12</td>
</tr>
<tr>
<td></td>
<td>Percentage of supplier facilities that meet the Global Food Safety Initiative (GFSI) requirements</td>
<td>Quantitative</td>
<td>Percentage (%)</td>
<td>CN0102-13</td>
</tr>
<tr>
<td></td>
<td>Discussion of markets that ban imports of the registrant’s products</td>
<td>Discussion &amp; Analysis</td>
<td>n/a</td>
<td>CN0102-14</td>
</tr>
</tbody>
</table>

¹¹ Note to CN0102-11—Disclosure shall include a description of notable recalls, such as those that affected a significant amount of product or those related to serious illness or fatality.
Table 1. Sustainability Disclosure Topics & Accounting Metrics (cont.)

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>ACCOUNTING METRIC</th>
<th>CATEGORY</th>
<th>UNIT OF MEASURE</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workforce Health &amp; Safety</td>
<td>(1) Total recordable injury rate (TRIR) and (2) fatality rate</td>
<td>Quantitative</td>
<td>Rate</td>
<td>CN0102-15</td>
</tr>
<tr>
<td></td>
<td>Description of practices to monitor for and mitigate chronic and acute health conditions</td>
<td>Discussion &amp; Analysis</td>
<td>n/a</td>
<td>CN0102-16</td>
</tr>
<tr>
<td>Antibiotic Use in Animal Production</td>
<td>Percentage of animal production that receives (1) medically important antibiotics and (2) nontherapeutic antibiotics</td>
<td>Quantitative</td>
<td>Percentage by weight (%)</td>
<td>CN0102-17</td>
</tr>
<tr>
<td>Animal Care &amp; Welfare</td>
<td>Percentage of pork produced without the use of gestation crates</td>
<td>Quantitative</td>
<td>Percentage by weight (%)</td>
<td>CN0102-18</td>
</tr>
<tr>
<td></td>
<td>Percentage of cage-free shell egg sales</td>
<td>Quantitative</td>
<td>Percentage (%)</td>
<td>CN0102-19</td>
</tr>
<tr>
<td></td>
<td>Percentage of production certified to a third-party animal welfare standard</td>
<td>Quantitative</td>
<td>Percentage by weight (%)</td>
<td>CN0102-20</td>
</tr>
<tr>
<td>Environmental &amp; Social Impacts of Animal Supply Chains</td>
<td>Percentage of livestock from suppliers implementing NRCS Conservation Plans or the equivalent</td>
<td>Quantitative</td>
<td>Percentage by weight (%)</td>
<td>CN0102-21</td>
</tr>
<tr>
<td></td>
<td>Percentage of contract producers in regions with High or Extremely High Baseline Water Stress</td>
<td>Quantitative</td>
<td>Percentage by contract value (%)</td>
<td>CN0102-22</td>
</tr>
<tr>
<td></td>
<td>Percentage of supplier and contract production facilities verified to meet animal welfare standards</td>
<td>Quantitative</td>
<td>Percentage (%)</td>
<td>CN0102-23</td>
</tr>
<tr>
<td></td>
<td>Discussion of strategy to manage opportunities and risks to livestock supply presented by climate change</td>
<td>Discussion &amp; Analysis</td>
<td>n/a</td>
<td>CN0102-24</td>
</tr>
<tr>
<td>Environmental Risks in Animal Feed Supply Chains</td>
<td>Percentage of feed sourced from regions with High or Extremely High Baseline Water Stress</td>
<td>Quantitative</td>
<td>Percentage by weight (%)</td>
<td>CN0102-25</td>
</tr>
<tr>
<td></td>
<td>Discussion of strategy to manage opportunities and risks to feed sourcing presented by climate change</td>
<td>Discussion &amp; Analysis</td>
<td>n/a</td>
<td>CN0102-26</td>
</tr>
</tbody>
</table>
Greenhouse Gas Emissions

Description

The Meat, Poultry & Dairy industry generates significant Scope 1 greenhouse gas (GHG) emissions from both animal and energy-generation sources. GHG emissions contribute to climate change and create additional regulatory compliance costs and risks for meat, poultry, and dairy companies due to climate change mitigation policies. The majority of the industry’s emissions stem directly from the animals themselves through the release of methane during enteric fermentation, and during manure management. The direct emissions from livestock production and animal raising represent a significant portion of total GHG emissions released among all sources, both in the U.S. and globally. These emissions sources are currently not widely regulated, which presents uncertainties as to the future of GHG regulations for the industry, given expanding GHG regulations in different regions globally. Companies in this industry also use large quantities of fossil fuels to meet energy requirements, generating additional direct GHG emissions and creating direct regulatory risks. Future emission regulations could result in additional operating or compliance costs. By implementing new technologies to capture animal emissions and focusing on energy efficiency, companies can mitigate regulatory risk and volatile energy costs while also limiting their GHG emissions.

Accounting Metrics

CN0102-01. Gross global Scope 1 emissions

.01 The registrant shall disclose gross global Scope 1 greenhouse gas (GHG) emissions to the atmosphere of the six GHGs covered under the Kyoto Protocol (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride).

- Emissions of all gases shall be disclosed in metric tons of carbon dioxide equivalents (CO₂-e), calculated in accordance with published 100-year time horizon global warming potential (GWP) factors. To date, the preferred source for GWP factors is the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (2013).

- Gross emissions are GHGs emitted to the atmosphere before accounting for any GHG reduction activities, offsets, or other adjustments for activities in the reporting period that have reduced or compensated for emissions.


  - The registrant shall consider the CDP Climate Change Questionnaire as a normative reference, thus any updates made year-on-year shall be considered updates to this guidance.

These emissions include direct emissions of GHGs from stationary or mobile sources that include, but are not limited to, enteric fermentation, livestock waste, land-use change, equipment, production facilities, and transportation (i.e., marine, road, or rail).

.03 GHG emission data shall be consolidated according to the approach with which the registrant consolidates its financial reporting data, which is generally aligned with:

- The Financial Control approach defined by the GHG Protocol and referenced by the *CDP Guidance for companies reporting on climate change on behalf of investors & supply chain members 2015* (hereafter, the “CDP Guidance”).

.04 The underlying technical approach to data collection, analysis, and disclosure shall be consistent with the CDP Guidance.

- The registrant shall consider the CDP Guidance as a normative reference, thus any updates made year-on-year shall be considered updates to this guidance.

.05 The registrant should discuss any change in its emissions from the previous fiscal year, such as if the change was due to emissions reductions, divestment, acquisition, mergers, changes in output, and/or changes in calculation methodology.

.06 In the case that current reporting of GHG emissions to the CDP or other entity (e.g., a national regulatory disclosure program) differs in terms of the scope and consolidation approach used, the registrant may disclose those emissions. However, primary disclosure shall be according to the guidelines described above.

.07 The registrant should discuss the calculation methodology for its emissions disclosure, such as if data are from continuous emissions monitoring systems (CEMS), engineering calculations, mass balance calculations, etc.

.08 The registrant should consult the most recent version of each document referenced in this standard at the time disclosure occurs.

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12 “An organization has financial control over an operation if it has the ability to direct the financial and operating policies of the operation with a view to gaining economic benefits from its activities. Generally an organization has financial control over an operation for GHG accounting purposes if the operation is treated as a group company or subsidiary for the purposes of financial consolidation.” *Guidance for companies reporting on climate change on behalf of investors & supply chain members 2013*, p. 95.
13 This is based on the requirements of International Accounting Standards/International Financial Reporting Standards (IAS/IFRS) on consolidation and equity accounting and is consistent with how information relating to entities within a group or interest in joint ventures/associates would be included on consolidated financial statements, as per the *CDSBS Climate Change Reporting Framework*. 
CN0102-02. Description of long-term and short-term strategy or plan to manage Scope 1 emissions, emission-reduction targets, and an analysis of performance against those targets

.09 The registrant shall discuss the following, where relevant:

- The scope, such as whether strategies, plans, and/or reduction targets pertain differently to different business units, geographies, or emissions sources;

- Whether strategies, plans, and/or reduction targets are related to or associated with an emissions disclosure (reporting) or reduction program (e.g., E.U. ETS, RGGI, WCI, etc.), including regional, national, international, or sectoral programs; and

- The activities and investments required to achieve the plans, and any risks or limiting factors that might affect achievement of the plans and/or targets.

.10 For emission-reduction targets, the registrant shall disclose:

- The percentage of emissions within the scope of the reduction plan;

- The percentage reduction from the base year;

  - The base year is the first year against which emissions are evaluated toward the achievement of the target.

- Whether the target is absolute or intensity based, and the metric denominator if it is an intensity-based target;

- The timelines for the reduction activity, including the start year, the target year, and the base year. Disclosure shall be limited to activities that were ongoing (active) or reached completion during the fiscal year; and

- The mechanism(s) for achieving the target, such as animal waste (manure) management, animal feeding practices, on-site energy-generation efficiency efforts, energy source diversification, etc. Where necessary, the registrant shall discuss any circumstances in which the target base year emissions have been, or may be, recalculated retrospectively or where the target base year has been reset.

.11 Disclosure corresponds with:

- CDSB CCRF Section 4, “Management actions.”


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14 4.12, “Disclosure shall include a description of the organization’s long-term and short-term strategy or plan to address climate change-related risks, opportunities, and impacts, including targets to reduce GHG emissions and an analysis of performance against those targets.” Climate Change Reporting Framework – Edition 1.1, October 2012, CDSB.
.12 Relevant initiatives to discuss may include, but are not limited to, use of manure for energy through anaerobic digestion, improved pasture quality, and implementation of dietary additives that reduce methanogenesis, consistent with the IPCC Fourth Assessment Report: Climate Change 2007: Working Group III: Mitigation of Climate Change.
Energy Management

Description

Purchased electricity contributes to significant operating costs for meat, poultry, and dairy companies, which require electricity and fuel as primary inputs for value creation in their processing facilities. The industry’s energy-intensive production has direct regulatory implications due to Scope 1 GHG emissions from on-site fossil fuel use. The financial risks from the direct use of fossil fuels are discussed earlier under the topic of Greenhouse Gas Emissions. Impacts from purchased electricity consumption, including emissions from utilities (usually accounted for as the Scope 2 emissions of a company purchasing electricity), have the potential to affect the results of meat, poultry, and dairy companies’ operations through impacts on costs. Sustainability factors—such as increasing GHG emissions regulation, incentives for energy efficiency and renewable energy, and risks associated with nuclear energy and its increasingly limited license to operate—are leading to increases and volatility in the price of conventional electricity sources while making alternative sources cost-competitive. Efficient energy usage is essential for competitive advantage in this industry, as purchased fuels and electricity account for a significant portion of total production costs. Decisions about the use of alternative fuels, renewable energy, and on-site generation of electricity (versus purchasing from the grid) can play an important role in influencing both the costs and the reliability of the energy supply.

Accounting Metrics

CN0102-03. Total energy consumed, percentage grid electricity, percentage renewable

.13 The registrant shall disclose total energy consumption from all sources as an aggregate figure in gigajoules or their multiples.

- The scope includes energy purchased from sources external to the organization or produced by the organization itself (self-generated).
- The scope includes only energy consumed by entities owned or controlled by the organization.
- The scope includes energy from all sources including direct fuel usage, purchased electricity, and heating, cooling, and steam energy.

.14 In calculating energy consumption from fuels and biofuels, the registrant shall use higher heating values (HHV), also known as gross calorific values (GCV), which are directly measured or taken from the Intergovernmental Panel on Climate Change (IPCC), the U.S. Department of Energy (DOE), or the U.S. Energy Information Administration (EIA).

.15 The registrant shall disclose purchased grid electricity consumption as a percentage of its total energy consumption.

.16 The registrant shall disclose renewable energy consumption as a percentage of its total energy consumption.
The scope of renewable energy includes renewable fuel the registrant consumes and renewable energy the registrant directly produces, purchases through a renewable power purchase agreement (PPA) that explicitly includes renewable energy certificates (RECs), or for which Green-e Energy Certified RECs are paired with grid electricity.

- For any renewable electricity generated on-site, any RECs must be retained (i.e., not sold) and retired on behalf of the registrant in order for the registrant to claim them as renewable energy.
- For renewable PPAs, the agreement must explicitly include and convey that RECs be retained and retired on behalf of the registrant in order for the registrant to claim them as renewable energy.
- The renewable portion of the electricity grid mix that is outside of the control or influence of the registrant is excluded from disclosure.¹⁵
- Renewable energy is defined as energy from sources that are replenished at a rate greater than or equal to their rate of depletion, consistent with EPA definitions, such as geothermal, wind, solar, hydro, and biomass.

For the purposes of this disclosure, the scope of renewable energy from hydro and biomass sources is limited to the following:

- Energy from hydro sources that are certified by the Low Impact Hydropower Institute or that are eligible for a state Renewable Portfolio Standard.
- Energy from biomass sources is limited to materials certified to a third-party standard (e.g., Forest Stewardship Council, Sustainable Forest Initiative, Programme for the Endorsement of Forest Certification, or American Tree Farm System), materials considered “eligible renewables” according to the Green-e Energy National Standard Version 2.5 (2014), and materials that are eligible for a state Renewable Portfolio Standard.

The registrant shall apply conversion factors consistently for all data reported under this disclosure, such as the use of HHVs for fuel usage (including biofuels) and conversion of kWh to gigajoules (for energy data including electricity from solar or wind energy).

¹⁵ SASB recognizes that RECs reflect the environmental attributes of renewable energy that have been introduced to the grid.
Water Withdrawal

Description

Water is an essential factor of production in the Meat, Poultry & Dairy industry, as it is required to hydrate animals and process animal products. While water has historically been an abundant resource in many parts of the world, it is becoming an increasingly scarce resource due to population growth, increasing consumption per capita, poor water management, and climate change. Water scarcity can result in higher supply costs and risks of shortages for meat, poultry, and dairy producers.

Accounting Metrics

CN0102-04. (1) Total water withdrawn and (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress

.20 The registrant shall disclose the amount of water (in thousands of cubic meters) that was withdrawn from all sources, where:

- Water sources include surface water (including water from wetlands, rivers, lakes, and oceans), groundwater, rainwater collected directly and stored by the registrant, wastewater obtained from other entities, municipal water supplies, or supply from other water utilities.

.21 The registrant may choose to disclose the portion of its supply by source if, for example, significant portions of withdrawals are from non-freshwater sources, where:

- Fresh water may be defined according to the local statutes and regulations where the registrant operates. Where there is no regulatory definition, fresh water shall be considered to be water that has a solids (TDS) concentration of less than 1000 mg/l per the Water Quality Association definition.

- Water obtained from a water utility in compliance with U.S. National Primary Drinking Water Regulations can be assumed to meet the definition of fresh water.

.22 The registrant shall disclose the amount of water (in thousands of cubic meters) that was consumed in its operations, where water consumption is defined as:

- Water that evaporates during withdrawal, usage, and discharge;

- Water that is directly or indirectly incorporated into the registrant’s product or service; and

- Water that does not otherwise return to the same catchment area from which it was withdrawn, such as water returned to another catchment area or the sea.

.23 The registrant shall analyze all of its operations for water risks and identify activities that withdraw and consume water in locations with High (40–80%) or Extremely High (>80%) Baseline Water Stress as classified by the World Resources Institute’s (WRI) Water Risk Atlas tool, Aqueduct (publicly accessible online here).

.24 The registrant shall disclose its water withdrawn in locations with High or Extremely High Baseline Water Stress as a percentage of the total water withdrawn.
.25 The registrant shall disclose its water consumed in locations with High or Extremely High Baseline Water Stress as a percentage of the total water consumed.

**CN0102-05. Discussion of risks associated with water withdrawal and description of strategies and practices to mitigate those risks**

.26 The registrant shall discuss its risks associated with water withdrawals and water consumption and describe how it manages these risks.

.27 The registrant shall discuss, where applicable, risks to the availability of adequate, clean water resources.

- Relevant information to provide includes, but is not limited to:
  - Environmental constraints, such as operating in water-stressed regions, drought, interannual or seasonal variability, and risks caused by the impact of climate change.
  - External constraints, such as volatility in water costs, stakeholder perceptions and concerns related to water withdrawals (e.g., those from local communities, non-governmental organizations, and regulatory agencies), direct competition with and impact from the actions of other users (commercial and municipal), restrictions to withdrawals due to regulations, and the registrant’s ability to obtain and retain water rights or permits.
  - How risks may vary by withdrawal source, including wetlands, rivers, lakes, oceans, groundwater, rainwater, municipal water supplies, or supply from other water utilities.

.28 The registrant should include a discussion of the potential impacts that these risks may have on its operations and the timeline over which such risks are expected to manifest.

- Impacts may include, but are not limited to, those associated with costs, revenues, liabilities, continuity of operations, and reputation.

.29 The registrant shall provide a description of its short-term and long-term strategy or plan to manage these risks, including the following, where relevant:

- Any water management targets it has set, and an analysis of performance against those targets.
  - Water management targets can include water management goals that the registrant prioritizes to manage its risks and opportunities associated with water withdrawal and consumption.
  - Targets can include, but are not limited to, those associated with reducing water withdrawals and reducing water consumption.

- The scope of its strategy, plans, or targets, such as whether they pertain differently to different business units, geographies, or water-consuming operational processes.

- The activities and investments required to achieve the plans and targets, and any risks or limiting factors that might affect achievement of the plans and/or targets.
For water management targets, the registrant shall additionally disclose:

- The percentage reduction or improvements from the base year, where:
  - The base year is the first year against which water management targets are evaluated toward the achievement of the target.
- Whether the target is absolute or intensity based, and the metric denominator if it is an intensity-based target.
- The timelines for the water management plans, including the start year, the target year, and the base year.
- The mechanism(s) for achieving the target, including:
  - Efficiency efforts, such as the use of rain water capture, runoff capture and reuse, water recycling, and/or closed-loop systems
  - Product innovations such as redesigning products or services to require less water
  - Process and equipment innovations, such as those that enable the use of less water in manufacturing or operations
  - Use of tools and technologies (e.g., the World Wildlife Fund Water Risk Filter, WRI/WBCSD Global Water Tool, and Water Footprint Network Footprint Assessment Tool) to analyze water use, risk, and opportunities
  - Collaborations or programs in place with the community or other organizations

Disclosure of strategies, plans, and targets shall be limited to activities that were ongoing (active) or reached completion during the fiscal year.

The registrant shall discuss if its water management practices result in any additional lifecycle impacts or tradeoffs in its organization, including tradeoffs in land use, energy consumption, and greenhouse gas (GHG) emissions, and why the registrant chose these practices despite lifecycle tradeoffs.

Additional Resources
GRI-Global Reporting Initiative (GRI G4)
CDP 2015 Water Questionnaire
CEO Water Mandate
Global Water Footprint Assessment Standard
Land Use & Ecological Impacts

Description

Meat, poultry, and dairy operations have diverse ecological impacts, primarily as a result of their significant land-use needs and the contamination of the air, land, and groundwater by animal waste. While the impacts are different, both traditional and Concentrated Animal Feeding Operations (CAFO) lead to significant ecological impacts. The primary concern from CAFOs and animal-product processing facilities is the generation of large and concentrated amounts of waste and pollutants into the environment. Treating effluent water and waste from facilities involves significant costs. Non-CAFO animal farming, which requires large tracts of pastureland, can lead to physical degradation of land resources. Land use and ecological impacts result in legal and regulatory risks in the form of fines, litigation, and difficulties obtaining permits for facility expansions or waste discharges.

Accounting Metrics

CN0102-06. Number of incidents of non-compliance with water-quality permits, standards, and regulations

.33 The registrant shall disclose the total number of instances of non-compliance, including violations of a technology-based standard and exceedances of a quality-based standard.

.34 The scope of disclosure includes incidents governed by federal, state, and local statutory permits and regulations including, but not limited to, the discharge of a hazardous substance, violation of pretreatment requirements, total maximum daily load (TMDL) exceedances, and/or water withdrawal exceedances.

.35 An incident of non-compliance shall be disclosed regardless of whether it resulted in an enforcement action (e.g., fine, warning letter, etc.).

.36 An incident of non-compliance shall be disclosed regardless of the measurement methodology or frequency. These include violations:

- For continuous discharges, limitations, standards, and prohibitions that are generally expressed as maximum daily, weekly, and monthly averages.

- For non-continuous discharges, limitations that are generally expressed in terms of total mass, maximum rate of discharge, frequency, and mass or concentration of specified pollutants.

CN0102-07. Discussion of risks associated with water discharges and description of strategies and practices to mitigate those risks

.37 The registrant shall discuss its risks associated with discharge of water to the environment and describe how it manages these risks.

.38 The registrant shall discuss, where applicable, risks associated with its discharge of wastewater.

- Relevant information to provide includes, but is not limited to:

  - Environmental constraints, such as the ability to maintain compliance with regulations focused on the quality of effluent discharged to the environment, the ability to eliminate existing and
emerging pollutants of concern, and the ability to maintain control over runoff and storm water discharges.

- External constraints, such as increased liability and/or reputational risks, restrictions to discharges and/or increased operating costs due to regulation, stakeholder perceptions and concerns related to water discharges (e.g., those from local communities, non-governmental organizations, and regulatory agencies), and the ability to obtain discharge rights or permits.

- How risks may vary by discharges to different destinations, including wetlands, rivers, lakes, oceans, groundwater, rainwater, municipal water supplies, or other water utilities.

.39 The registrant should include a discussion of the potential impacts that these risks may have on its operations and the timeline over which such risks are expected to manifest.

- Impacts may include, but are not limited to, those associated with costs, revenues, liabilities, continuity of operations, and reputation.

.40 The registrant shall provide a description of its short-term and long-term strategy or plan to manage these risks, including the following, where relevant:

- Any water management-targets it has set, and an analysis of performance against those targets.

  - Water-management targets can include water-management goals that the registrant prioritizes to manage its risks and opportunities associated with water discharge.

  - Targets can include, but are not limited to, those associated with reducing water discharges and improving the quality of waste water discharges.

- The scope of its strategy, plans, or targets, such as whether they pertain differently to different business units, geographies, or water-consuming operational processes.

- The activities and investments required to achieve the plans and targets, and any risks or limiting factors that might affect achievement of the plans and/or targets.

.41 For water-management targets, the registrant shall additionally disclose:

- The percentage reduction or improvements from the base year, where:

  - The base year is the first year against which water-management targets are evaluated toward the achievement of the target.

- Whether the target is absolute or intensity based, and the metric denominator if it is an intensity-based target.

- The timelines for the water-management plans, including the start year, the target year, and the base year.
The mechanism(s) for achieving the target, including:

- Efficiency efforts, such as the use of rain water capture, runoff capture and reuse, water recycling, and/or closed-loop systems
- Process and equipment innovations, such as those that enable the use and discharge of less water in manufacturing or operations
- Use of tools and technologies (e.g., the World Wildlife Fund Water Risk Filter, WRI/WBCSD Global Water Tool, and Water Footprint Network Footprint Assessment Tool) to analyze water use, risk, and opportunities
- Collaborations or programs in place with the community or other organizations

Disclosure of strategies, plans, and targets shall be limited to activities that were ongoing (active) or reached completion during the fiscal year.

The registrant may choose to discuss if its water-management decisions and practices incorporate consideration of any additional lifecycle impacts or environmental tradeoffs for the registrant, including tradeoffs associated with land-use impacts, energy consumption, and GHG emissions.

**CN0102-08. Amount of animal litter and manure generated, percentage managed according to a nutrient management plan**

The registrant shall disclose the total amount, in tons, of animal litter and manure its facilities generated, where:

- The scope includes both dry and liquid manures and litter.

The registrant shall calculate the percentage as the amount of animal litter and manure generated from facilities that implement a nutrient management plan divided by the total amount of animal litter and manure generated, where:

- A nutrient management plan is a documented management practice that addresses the generation, collection, treatment, storage, and agronomic use of all manure for both:
  - The production area, including the animal confinement area, storage areas for feed and other raw materials, animal mortality facilities, and manure-handling containment or storage areas; and
  - The land treatment area, including any land under control of the registrant, whether it is owned, rented, or leased, to which manure or process wastewater is, or might be, applied for crop, hay, or pasture production or other uses.

At a minimum, the nutrient management plan shall meet the minimum specific elements of the Natural Resources Conservation Service (NRCS) Comprehensive Nutrient Management Plan (CNMP) which are:

- Background and Site Information
- Manure and Wastewater Handling and Storage
- Farmstead Safety and Security
• Land Treatment Practices
• Soil and Risk Assessment Analyses
• Nutrient Management according to the criteria in the Nutrient Management Conservation Practice (Code 590)
• Recordkeeping
• References

CN0102-09. Percentage of pasture and grazing land managed to NRCS Conservation Plan criteria

.47 The registrant shall calculate the percentage as the area of pasture and grazing land, in hectares, that is managed to Natural Resources Conservation Service (NRCS) conservation plan criteria divided by the total area, in hectares, of the registrant’s pasture and grazing land.

.48 Land shall be considered to be managed to a NRCS conservation plan if its management:

• Follows the planning process described by the National Planning Procedures Handbook; and

• Follows management practices outlined in the National Range and Pasture Handbook (NRPH), USDA, NRCS, Grazing Lands Technology Institute Revision 1, December 2003.

.49 Land is within the scope of disclosure if it is addressed by the NRPH definition of rangeland, which includes grazed forest, naturalized pasture, pastureland, hayland, and grazed and hayed cropland.

.50 The scope includes land that is owned, operated (e.g., through a lease), and/or controlled by the registrant.

CN0102-10. Animal protein production from concentrated animal feeding operations (CAFO)

.51 The registrant shall disclose the amount, in metric tons, of animal protein produced that was raised in Concentrated Animal Feeding Operations (CAFO) where:

• The amount shall be calculated as the carcass (or dressed) weight of animal protein.

• CAFO is defined according to CFR Title 40, Part 122.23, “Concentrated animal feeding operations.“

.52 The scope is limited to animal protein from CAFOs that the registrant owns and operates, and it excludes those with which it contracts animal production (e.g., independent producers) and those that otherwise supply animal protein to the registrant (e.g., for processing by the registrant).
Food Safety

Description

Meat, poultry, and dairy products are either sold directly to consumers in their raw form (e.g., milk or eggs) or are further processed into a wide variety of foods. Maintaining product quality and safety is crucial, as contamination by pathogens, chemicals, or spoilage presents serious human and animal health risks. Food safety practices and procedures in the industry have recently been subject to more intense scrutiny and oversight, and future outbreaks of diseases among cattle, poultry, or pigs could lead to further governmental regulation. Food safety issues may arise at any time during the production or processing phase and companies can be significantly impacted through product recalls, damaged brand reputation, and increased regulatory scrutiny, including trade restrictions. While food safety issues can arise throughout multiple levels of a company’s value chain, it is often the final brand that faces the most reputational harm. Companies can better address safety concerns when they arise and mitigate future risks by improving food safety policies and the visibility of their supply chains.

Accounting Metrics

CN0102-11. Number of recalls issued, total weight of products recalled

.53 The registrant shall disclose the total number of recalls issued, the scope of which includes voluntary recalls initiated by the registrant and recalls requested by the Food Safety and Inspection Service (FSIS) of the U.S. Department of Agriculture (USDA), or equivalent national authority.

.54 The registrant shall disclose the total amount, in metric tons, of products recalled.

.55 A database of USDA-regulated recalls is available here.

.56 The registrant may choose, in addition to the total number of recalls, to disclose the percentage of recalls that were (1) registrant initiated and (2) requested by a regulatory agency, where:

- Recalls requested by a regulatory agency are those requested by governmental entities (e.g., the USDA in the U.S. or the China Food and Drug Administration).

- Registrant-initiated recalls are those proactively initiated by the registrant or its business partners in order to take foods off the market prior to any request from a regulatory agency.

Note to CN0102-11.

.57 The registrant shall discuss notable recalls, such as those that affected a significant amount of product or those related to serious illness or fatality.

.58 For such recalls, the registrant should provide:

- Description and cause of the recall issue

- The total weight of products recalled

- The cost to remedy the issue (in U.S. dollars)
- Whether the recall was voluntary or involuntary (mandated by the FDA)
- Corrective actions
- Any other significant outcomes (e.g., legal proceedings or fatalities)

**CN0102-12. Global Food Safety Initiative (GFSI) audit conformance: (1) major non-conformance rate and associated corrective action rate and (2) minor non-conformance rate and associated corrective action rate**

.59 The registrant shall disclose its conformance with Global Food Safety Initiative (GFSI) recognized food safety schemes based on the number of non-conformances that were identified during audits.

.60 The scope of disclosure includes audit results from facilities that are owned and/or operated by the registrant.

.61 The registrant shall calculate and disclose the major non-conformance rate as the total number of major (or critical) non-conformances identified in the supply chain divided by the number of facilities audited.

- Major non-conformances are the highest severity of non-conformance and require escalation by auditors. Major non-conformances may arise from a significant risk to food safety, non-compliance with relevant regulatory requirements, and failure to adequately address prior minor non-conformances. Major non-conformances must be corrected in accordance with the relevant GFSI scheme under audit.
- Major non-conformances may also be referred to as critical or priority non-conformances.

.62 The registrant shall calculate and disclose the minor non-conformance rate as the total number of minor non-conformances identified in the supply chain divided by the number of facilities audited.

- A minor non-conformance is defined by the relevant GFSI scheme and is by itself not indicative of a systemic problem.

.63 The registrant shall calculate and disclose its corrective action rate for major non-conformances as the number of corrective action plans completed in accordance with the relevant GFSI scheme, no later than 30 days from the audit date, to address major non-conformances, divided by the total number of major non-conformances that have been identified.

.64 The registrant shall calculate and disclose its corrective action rate for minor non-conformances as the number of corrective action plans completed in accordance with the relevant GFSI scheme, no later than 365 days from the audit date, to address minor non-conformances, divided by the total number of minor non-conformances that have been identified.

.65 A corrective action is defined as an action to eliminate the cause of a detected non-conformity or other undesirable matter, in accordance with the GFSI, and may be further defined by the relevant GFSI scheme under audit.
The scope of schemes includes those recognized by GFSI, including, at the time of publication:

- PrimusGFS Standard V2.1—December 2011
- GlobalG.A.P Integrated Farm Assurance Scheme Version 4 and Produce Safety Standard Version 4
- FSSC 22000—October 2011 Issue
- CanadaGAP Scheme Version 6 Options B and C and Program Management Manual Version 3
- SQF Code 7th Edition Level 2
- IFS Food standard Version 6
- BRC Global Standard for Food Safety Issue 6

The registrant should disclose the GFSI-recognized scheme to which its facilities are audited.

**CN0102-13. Percentage of supplier facilities that meet the Global Food Safety Initiative (GFSI) requirements**

The registrant shall disclose the percentage of its supplier facilities that are certified to a Global Food Safety Initiative (GFSI) scheme.

- The percentage shall be calculated as the number of facilities certified to a GFSI scheme divided by the total number of supplier facilities.
- The scope of disclosure includes facilities operated by entities with which the registrant contracts animal production (e.g., independent producers) and those that otherwise supply animal protein to the registrant (e.g., for processing by the registrant).
- The scope of disclosure excludes suppliers of materials and products that are not animal protein.

The scope of schemes includes those recognized by the GFSI, including, at time of publication:

- PrimusGFS Standard V2.1—December 2011
- Global Aquaculture Alliance BAP Seafood Processing Standard
- FSSC 22000—October 2011 Issue
- SQF Code 7th Edition Level 2
- IFS Food Standard Version 6
- BRC Global Standard for Food Safety Issue 6
- GlobalG.A.P Integrated Farm Assurance Scheme Version 4 and Produce Safety Standard Version 4
- CanadaGAP Scheme Version 6 Options B and C and Program Management Manual Version 3
CN0102-14. Discussion of markets that ban imports of the registrant's products

.70 The registrant shall disclose a list of countries and regions that restrict, ban, or have suspended imports of the registrant’s products due to sanitary and phytosanitary (SPS) measures.

- The scope of disclosure excludes import bans, embargoes, or restrictions that are in place due to non-SPS measures.

.71 SPS measures are food, animal, and plant safety and health standards and regulations enacted by governments to protect human, animal, or plant life or health in accordance with the World Trade Organization (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement).

.72 The registrant shall discuss the following with respect to each ban: The scope of meat or meat products affected, the length of time the ban has been in place, the stated reason for the ban (e.g., risk of bovine spongiform encephalopathy), and the effect on the registrant’s results of operations and financial condition.
Workforce Health & Safety

**Description**

The Meat, Poultry & Dairy industry has relatively high injury rates compared with those in other industries. Common hazards include falls, transportation accidents, heat-related injuries, asphyxiation, and machinery injuries. Exposure to hazardous substances, including particulate matter dust, may increase the risk of chronic illnesses, and workers can also fall ill from pathogens they contact when handling meat or animal waste. Worker injuries or fatalities can lead to negative publicity, low worker morale and productivity, and increased health care and injury compensation costs. Additionally, regulators may levy fines against companies for noncompliance with worker health and safety standards, as well as preventable accidents, and can require remedial action such as employee training. Developing a strong company safety culture and reducing employees’ exposure to harmful situations is critical in order to proactively guard against accidents and improve employees’ health and safety.

**Accounting Metrics**

**CN0102-15. (1) Total recordable injury rate (TRIR) and (2) fatality rate**

.73 Registrants whose workforce is entirely U.S.-based shall disclose their total recordable injury rate (TRIR) and fatality rate as calculated and reported in the Occupational Safety and Health Administration’s (OSHA) Form 300.

- OSHA guidelines provide details on determining whether an event is a recordable occupational incident and definitions for exemptions for incidents that occur in the work environment but are not occupational.

.74 Registrants whose workforce includes non-U.S.-based employees shall calculate their TRIR and fatality rate according to the U.S. Bureau of Labor Statistics guidance and/or using the U.S. Bureau of Labor Statistics calculator.

.75 The registrant shall disclose its TRIR and fatality rate for all employees, including direct full-time employees, contract employees, and seasonal and migrant employees.

.76 The scope includes all employees, domestic and foreign.

.77 Rates shall be calculated as: (statistic count / total hours worked)*200,000.

**CN0102-16. Description of practices to monitor for and mitigate chronic and acute health conditions**

.78 The registrant shall discuss efforts to assess, monitor, and mitigate chronic and acute health conditions in employees including, but not limited to:

- Chronic respiratory conditions such as chronic bronchitis, chronic lung disease (e.g., COPD), declines in lung function, organic toxic dust syndrome, and conditions resulting from particulate matter.

- Acute respiratory conditions such as chemical burns, inflammation of the respiratory tract, acute or subacute bronchitis, and death.
.79 Relevant efforts to discuss include, but are not limited to, risk assessments, participation in long-term health studies, health and wellness monitoring programs, readily accessible personal protective equipment (PPE), and implementation of relevant worker training programs.
Antibiotic Use in Animal Production

Description

The use of antibiotics to boost the growth of livestock and improve output of animal production is becoming an increasing concern among consumers and is leading to regulatory scrutiny over animal production. As a result of antibiotics use, there are concerns that humans can become exposed to antibiotic-resistant strains of bacteria through a number of sources that are linked back to animal production. While the use of antibiotics in animal feed or water supplies can improve the output of animal production, meat, poultry, and dairy companies must balance the positive benefits with the potential negative long-term health and safety impacts on consumers. Furthermore, there is an inherent link between antibiotic use and the Animal Care & Welfare topic. The nontherapeutic use of antibiotics allows for closer animal quarters associated with CAFOs. The use of antibiotics in animal production presents reputational and regulatory risks for meat, poultry, and dairy producers, both of which can affect long-term profitability through impacts on demand and market share. Oftentimes, companies in the industry supply contractors with animal feed containing antibiotics, which provides them with direct control over this issue. In other cases where companies get supplies from third-parties, they can select and specify suppliers that do not use antibiotics in animal raising, as one way to manage the issue.

Accounting Metrics

CN0102-17. Percentage of animal production that receives (1) medically important antibiotics and (2) nontherapeutic antibiotics

The registrant shall disclose the percentage of animal production that received medically important antibiotics, where:

- Medically important antibiotics (or “medically important antimicrobial drugs”) are defined according to the U.S. Food and Drug Administration’s (FDA) Veterinary Feed Directive (VFD) as all three tiers (“critically important,” “highly important,” and “important”) of antimicrobial drugs listed in Appendix A to its Guidance for Industry (GFI) #152 to be “medically important.”
  - The current list of medically important antimicrobial drug classes includes: aminoglycosides, lincosamides, macrolides, penicillins, streptogramins, sulfonamides, and tetracyclines.
  - Updates made to the list of drug classes included GFI #152 Appendix A shall constitute updates to this standard.
- The percentage is calculated as the carcass (or dressed) weight of animal protein that received medically important antibiotics at any stage of its life divided by the total carcass (or dressed) weight of animal protein production.
- The scope includes animal protein from operations that the registrant owns and operates, operations with which it contracts animal production (e.g., independent producers), and operations that otherwise supply animal protein to the registrant (e.g., for processing by the registrant).
- The registrant may choose to provide disclosure by animal protein type (e.g., pork, beef, and poultry).
.81 The registrant shall disclose the percentage of animal production that received nontherapeutic antibiotics, where:

- Nontherapeutic (or subtherapeutic) antibiotic usage includes any use of the drug as a feed or water additive for an animal, in the absence of any clinical sign of disease in the animal, for the purpose of growth promotion, feed efficiency, weight gain, routine disease prevention, or other routine purpose.

- The percentage is calculated as the carcass (or dressed) weight of animal protein that received nontherapeutic antibiotics at any stage of its life divided by the total carcass (or dressed) weight of animal protein production.

- The scope includes animal protein from operations that the registrant owns and operates, operations with which it contracts animal production (e.g., independent producers), and operations that otherwise supply animal protein to the registrant (e.g., for processing by the registrant).

- The registrant may choose to provide disclosure by animal protein type (e.g., pork, beef, and poultry).

- The scope of antibiotics includes both antibiotics that treat human disease and those that do not (e.g., ionophores).
Animal Care & Welfare

Description

There is increasing public and regulatory scrutiny of the industry’s treatment of animals. In the U.S., farm animals are largely excluded from federal and state animal welfare statutes, including the Animal Welfare Act. However, the pressure on the industry to improve animal welfare and certain animal-raising methods has come from consumer and advocacy group action and shifting consumer trends. In recent years, consumer demand has shifted away from specific production methods, such as the use of gestation crates and other small caged enclosures that threaten animal health and welfare. Companies that are prepared to meet these trends may be able to increase their market share by capturing this market demand and being first-to-market with products that comply with new regulations.

Accounting Metrics

CN0102-18. Percentage of pork produced without the use of gestation crates

.82 The registrant shall calculate the percentage as the weight, in metric tons, of pork produced from gestation-crate-free sources divided by the total weight of pork production.

- Weight of production shall be calculated using carcass weight or retail weight (where the registrant has sourced pork or pork products that have already been processed).

.83 A gestation crate is defined as an enclosure for housing an individual breeding sow, where the enclosure fulfills the animal’s static space requirements but does not allow for dynamic movement such as turning around and is typically non-bedded, with concrete floors and metal stalls.

.84 The scope of disclosure includes pork or pork products that originated from breeding sows that were confined to gestation crates, regardless of whether or not the registrant housed the sow.

.85 The scope includes all pork and pork product products that the registrant brings to market, including pork from facilities that the registrant owns and operates and pork from facilities from which the registrant contracts animal production (e.g., independent producers).

.86 The registrant should discuss, where relevant:

- How, if in any way, the use of gestation crates is addressed in contracts with producers and independent farmers.

- Requirements of key customers related to the use of gestation crates and how the registrant addresses them.

- Any targets the registrant has related to phasing out gestation crates and its progress toward those targets.
CN0102-19. Percentage of cage-free shell egg sales

.87 The registrant shall calculate the percentage as the number of shell eggs produced from cage-free hens divided by the total shell egg production, where:

- Cage-free is defined as confinement of laying hens in a building, room, or open area with unlimited access to food and water, and with freedom to roam within these areas during the production cycle.

.88 The scope includes all eggs that the registrant brings to market, including eggs from facilities that the registrant owns and operates, eggs from facilities from which the registrant contracts egg production (e.g., independent producers), and eggs that the registrant purchases for resale.

CN0102-20. Percentage of production certified to a third-party animal welfare standard

.89 The registrant shall calculate the percentage as the weight, in metric tons, of animal protein production verified to have been raised in accordance with a third-party animal welfare standard divided by the total weight of animal protein production.

- Weight of production shall be calculated using carcass weight or retail weight (where the registrant has sourced animals or animal products that have already been processed).

.90 The scope includes all animal protein production that the registrant brings to market, including animal protein from facilities that the registrant owns and operates and animal protein from facilities from which the registrant contracts animal production (e.g., independent producers).

.91 Animal welfare standards are standards that relate to the following aspects of beef, pork, and/or poultry production:

- Animal treatment and handling
- Housing and transportation conditions
- Slaughter facilities and procedures
- Use of antibiotics and hormones

.92 Applicable certifications include, but are not limited to, the following: Animal Welfare Approved, Food Alliance, Global Animal Partnership’s 5-Step Program, Certified Humane Certification Program, and American Humane Certified.

.93 The registrant should disclose the animal welfare standards to which its production is certified.

.94 The registrant may choose to discuss animal welfare standards that it implements in its operations and/or supply chain that are not third-party verified (i.e., those that are enforced by the registrant or a trade association).
Environmental & Social Impacts of Animal Supply Chains

Description

Many companies supplement their own raising of animals with those from outside farmers or other corporations that have rearing operations, and thus many of the previously discussed environmental and social impacts exists within the industry’s supply chain. Some of these impacts include deforestation, land use and waste management, water withdrawals, and animal treatment. Other issue within supplier operations include food safety and antibiotics use, the financial and performance implications of which are discussed under those respective disclosure topics. Additionally, climate change risks present a long-term challenge for the Meat, Poultry & Dairy industry. The global presence of top companies in this industry heightens the probability of diverse physical impacts of climate change within supply chains, which can affect crucial factors of production for animal raising and processing, including grasslands and water. Managing environmental risks within a company’s animal supply chain is critical to securing a steady source of animals at reasonable costs, while managing social risks can prevent reputational damage and impacts on demand from the inhumane treatment of animals.

Accounting Metrics

CN0102-21. Percentage of livestock from suppliers implementing NRCS Conservation Plans or the equivalent

.95 The registrant shall calculate the percentage as the total live weight of livestock sourced from suppliers that manage pasture and grazing land to Natural Resources Conservation Service (NRCS) conservation plan criteria divided by the total live weight of livestock sourced by the registrant.

- The scope of disclosure shall include livestock purchased by the registrant during the fiscal year, adjusted for any changes in inventory of live animals.

.96 Land shall be considered to be managed to a NRCS conservation plan if its management:

- Follows the planning process described by the National Planning Procedures Handbook; and

- Follows management practices outlined in the National Range and Pasture Handbook (NRPH), USDA, NRCS, Grazing Lands Technology Institute Revision 1, December 2003.

.97 Land is within the scope of disclosure if it is addressed by the NRPH definition of rangeland, which includes grazed forest, naturalized pasture, pastureland, hayland, and grazed and hayed cropland.

CN0102-22. Percentage of contract producers in regions with High or Extremely High Baseline Water Stress

.98 The registrant shall calculate the percentage as the value of contracts, in U.S. dollars, associated with contract production of animal protein from entities located in water-stressed regions divided by the total value of contracts associated with contract production of animal protein, where:

- Water-stressed regions are defined according to the World Resources Institute’s (WRI) Water Risk Atlas tool, Aqueduct (publicly available online here), as areas with High (40–80%) or Extremely High (>80%) Baseline Water Stress.
• A contract producer (or grower) is an entity with which the registrant has an agreement under which the producer typically agrees to provide facilities, labor, utilities, and care for livestock owned by the registrant in return for a payment.

CN0102-23. Percentage of supplier and contract production facilities verified to meet animal welfare standards

.99 The registrant shall disclose the percentage of its supplier facilities that have been verified to be operating in accordance with animal welfare standards.

• The percentage shall be calculated as the number of facilities verified to be operating in accordance with animal welfare standards divided by the total number of supplier facilities.

• The scope of disclosure includes facilities operated by entities with which the registrant contracts animal production (e.g., independent producers) and those that otherwise supply animal protein to the registrant (e.g., for processing by the registrant).

.100 Animal welfare standards are standards that relate to the following aspects of beef, pork, and/or poultry production:

• Animal treatment and handling

• Housing and transportation conditions

• Slaughter facilities and procedures

• Use of antibiotics and hormones

.101 The registrant should disclose the animal welfare standards to which its production is certified.

.102 Standards include those that the registrant has developed and enforces in its supply chain, those developed and enforced by a trade association, or and those developed and enforced by a third party.

• Third-party standards include, but are not limited to, the following: Animal Welfare Approved, Food Alliance, Global Animal Partnership’s 5-Step Program, Certified Humane Certification Program, and American Humane Certified.

CN0102-24. Discussion of strategy to manage opportunities and risks to livestock supply presented by climate change

.103 The registrant shall discuss the risks and/or opportunities to its livestock production that may be presented by climate change scenarios.

• Livestock production risks and opportunities include those affecting all lifecycle phases of bringing animal protein to market, including breeding, grazing, feedlot, slaughter, processing, and distribution/transportation of live animals and processed animal protein products.

.104 The registrant should identify the risks presented by climate change, including, but not limited to, availability of water, shifts in rangeland quality, disease migration, and more frequent extreme weather events.
The registrant should discuss how such scenarios will manifest (e.g., at point they will affect the registrant’s supply chain) and how each type of livestock (i.e., beef cattle, dairy cattle, pigs, poultry, etc.) would specifically be affected and how other operating conditions (e.g., transportation and logistics, physical infrastructure, etc.) would be affected.

The registrant shall discuss efforts to assess and monitor the impacts of climate change and the related strategies it employs to adapt to any risks and/or recognize any opportunities.

- Strategies include, but are not limited to, use of insurance, investments in hedging instruments, supply chain diversification, improving ecosystem management and biodiversity, and development of tolerant livestock breeds.

The registrant should discuss the probability that risks and opportunities will come to fruition, the likely magnitude of the impact on financial results and operating conditions, and the timeframe over which such risks and opportunities are expected to manifest.

The registrant may include discussion of the methods or models used to develop the climate change scenario(s) it uses, including the use of scientific research provided by governmental and non-governmental organizations (e.g., Intergovernmental Panel on Climate Change Climate Scenario Process).

Climate change mitigation strategies in which the registrant engages, such as the reduction of direct CO2 emissions or the promotion of reduced-emissions techniques to partners (e.g., contact growers or independent suppliers), shall be addressed in CN102-02.
Environmental Risks in Animal Feed Supply Chains

Description

The animal feed supply chain for meat, dairy, and poultry producers is exposed to risks from climate change and increasing water scarcity. This can affect the production of animal feed and increase companies’ costs. Animal feed represents a significant proportion of animal raising costs. Companies can mitigate these risks by monitoring their feed supply chains for long-term impacts associated with climate change, sourcing from suppliers managing these risks well, and attempting to hedge short-term price fluctuations.

Accounting Metrics

CN0102-25. Percentage of feed sourced from regions with High or Extremely High Baseline Water Stress

The registrant shall calculate the percentage as the amount of feed, in metric tons, sourced from water-stressed areas divided by the total amount of feed utilized by the registrant, where:

- Water-stressed regions are defined according to the World Resources Institute’s (WRI) Water Risk Atlas tool, Aqueduct (publicly available online here), as areas with High (40–80%) or Extremely High (>80%) Baseline Water Stress.
- Feed includes soybean meal, cornmeal and other grains, and other fodder provided to livestock, but excludes forage.
- The amount of feed sourced shall be calculated as the amount purchased, adjusted for any changes in inventory of feed.

The scope of disclosure includes feed grown and/or manufactured by the registrant and feed that is purchased by the registrant.

CN0102-26. Discussion of strategy to manage opportunities and risks to feed sourcing presented by climate change

The registrant shall discuss the risks and/or opportunities to its feed sourcing that may be presented by climate change scenarios.

- Feed-sourcing risks and opportunities include those at the cultivation, milling and other processing, and transportation phases of animal feed production.

The registrant should identify the risks presented by climate change, including, but not limited to, availability of water, shifts in rangeland quality, disease migration, and more frequent extreme weather events.

The registrant should discuss how such scenarios will manifest (e.g., if the effects will be directly felt by the registrant or if they will affect the registrant’s supply chain) and how each type of feed (i.e., soybean meal, cornmeal and other grains, hay, etc.) would specifically be affected and how other operating conditions (e.g., transportation and logistics, physical infrastructure, etc.) would be affected.
The registrant shall discuss efforts to assess and monitor the impacts of climate change and the related strategies it employs to adapt to any risks and/or recognize any opportunities.

- Strategies include, but are not limited to, use of insurance, investments in hedging instruments, supply chain diversification, and improving ecosystem management and biodiversity.

The registrant should discuss the probability that risks and opportunities will come to fruition, the likely magnitude of the impact on financial results and operating conditions, and the timeframe over which such risks and opportunities are expected to manifest.

The registrant may include discussion of the methods or models used to develop the climate change scenario(s) it uses, including the use of global gridded crop models or scientific research provided by governmental and non-governmental organizations (e.g., Intergovernmental Panel on Climate Change Climate Scenario Process).

Climate change mitigation strategies in which the registrant engages, such as the reduction of direct CO₂ emissions or the promotion of reduced-emissions techniques to partners (e.g., contact growers or independent suppliers), shall be addressed in CN102-02.