MEAT, POULTRY, AND 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.

About this Standard
This Standard is an exposure draft presented for public review and comment. This version is not intended for implementation.

The public comment period lasts for 90 days, beginning on Wednesday, January 14th, 2015, and ending on Tuesday, April 14th, 2015. The Standard is subject to change thereafter.

For instructions on providing comments to SASB, please click here.

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INTRODUCTION

Purpose & Structure

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

SASB Standards are comprised of **(1) disclosure guidance and (2) accounting standards for 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 Forms 10-Q, S-1, and 8-K.

SASB’s disclosure guidance identifies sustainability topics at an industry level, which may be material—depending on a company’s specific operating context—to a company within that industry.

Each company is ultimately responsible for determining which information is material and is therefore required to be included in its Form 10-K or 20-F and other periodic SEC filings.

SASB’s accounting standards provide companies with standardized accounting metrics to account for performance on industry-level sustainability topics. When making disclosure on sustainability topics, companies adopting SASB’s accounting standards will help to ensure that disclosure is standardized and therefore useful, relevant, comparable, and auditable.

Industry Description

The Meat, Poultry, and Dairy industry produces raw and processed animal products, including meats, seafood, eggs, and dairy products, for human and animal consumption. Key activities include animal raising, slaughtering, processing, and packaging. Participants in this industry are vertically integrated to varying degrees, with some companies directly operating farms along with processing and distribution 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, grocery retailers, and exporters. The sustainable management of key industry inputs such as land, animals, labor, electricity, water, fuel, and oil has the ability to influence the industry’s competitive landscape.
Guidance for Disclosure of Material Sustainability Topics in SEC Filings

1. Industry-level Sustainability Topics

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

- Greenhouse Gas Emissions
- Energy Management
- Water Withdrawal
- Land Use & Animal Waste Management
- Food Safety
- Workforce Health & Safety
- Animal Care & Welfare
- Climate Change Impacts on Livestock Production & Feed Sourcing
- Environmental & Social Impacts of 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 it believes may be material for all companies within each SICS industry. SASB recognizes, however, that each company is ultimately responsible for determining what is material to it.

Regulation S-K, which sets forth certain disclosure requirements associated with Form 10-K and other SEC filings, requires, among other things, that companies 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.”

In determining whether a trend or uncertainty should be disclosed, the SEC has stated that management should use a two-part assessment based on probability and magnitude:

- 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.

- Second, if a company’s management cannot make a reasonable determination of the likelihood of an event

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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**

      Companies should consider making disclosure on sustainability topics as a complete set 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, companies should consider disclosing sustainability information in other sections of Form 10-K, as relevant, including:

      - **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.”

      More detailed guidance on disclosure of material sustainability topics can be found in the **SASB Conceptual Framework**, available for download via [http://www.sasb.org/](http://www.sasb.org/).
Guidance on Accounting of Material Sustainability Topics

For sustainability topics in the Meat, Poultry, and Dairy industry, SASB identifies accounting metrics. SASB recommends that each company consider using these sustainability accounting metrics when disclosing its performance with respect to each of the sustainability topics it has identified as material.

As appropriate—and consistent with Rule 12b-2043—for each sustainability topic, 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 competitive positioning;
- 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 consider the materiality of the sustainability issues that SASB has identified for those industries and disclose the associated SASB accounting metrics.

Users of the SASB Standards

The SASB Standards are intended 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. Nevertheless, 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.

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3 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.”

4 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 in which the registrant has a controlling interest and therefore are consolidated for financial reporting purposes (controlling interest is generally defined as ownership of 50% or more of voting shares);\(^5\)

- 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 its performance with respect to sustainability issues (typically this disclosure would be limited to risks and opportunities associated with these entities).

Reporting Format

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 the data 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 (e.g., for Internet media and services companies), hospital bed days (e.g., for health care delivery companies), or proven and probable reserves (e.g., for oil and gas exploration and production companies).

Activity metrics disclosed should:

- Convey contextual information that would not otherwise be apparent from SASB accounting metrics.

- Be deemed generally useful for users of SASB accounting metrics (e.g., investors) 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.

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\(^5\)See US GAAP consolidation rules (Section 810).
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</td>
<td>Quantitative</td>
<td>Metric tons (t), 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 imperfectness of third-party reporting systems 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 those drawn from certain conversion factors or the exclusion of *de minimis* values, may be necessary 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.

**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.”

Assurance

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.

SASB encourages registrants to use independent assurance (attestation); for example, an Examination Engagement to AT Section 101.

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 1. Sustainability Disclosure Topics & Accounting Metrics

<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><strong>Greenhouse Gas Emissions</strong></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, emissions 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><strong>Energy Management</strong></td>
<td>Total energy consumed, percentage grid electricity, percentage renewable</td>
<td>Quantitative</td>
<td>Gigajoules, Percentage (%)</td>
<td>CN0102-03</td>
</tr>
<tr>
<td><strong>Water Withdrawal</strong></td>
<td>Total fresh water withdrawn, percentage recycled, percentage in regions with High or Extremely High Baseline Water Stress</td>
<td>Quantitative</td>
<td>Cubic meters (m$^3$), Percentage (%)</td>
<td>CN0102-04</td>
</tr>
<tr>
<td><strong>Land Use &amp; Animal Waste Management</strong></td>
<td>Number of incidents of non-compliance with water-quality permits, standards, and regulations</td>
<td>Quantitative</td>
<td>Number</td>
<td>CN0102-05</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>CN0102-06</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>CN0102-07</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>CN0102-08</td>
</tr>
<tr>
<td><strong>Food Safety</strong></td>
<td>Number of recalls issued, total weight of product recalled$^6$</td>
<td>Quantitative</td>
<td>Number, Metric tons (t)</td>
<td>CN0102-09</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, Percentage (%)</td>
<td>CN0102-10</td>
</tr>
<tr>
<td></td>
<td>Discussion of markets banning imports of the registrant’s products</td>
<td>Discussion &amp; Analysis</td>
<td>n/a</td>
<td>CN0102-11</td>
</tr>
</tbody>
</table>

$^6$ Note to **CN0102-09**—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>CN0102-12</td>
</tr>
<tr>
<td></td>
<td>Description of practices to monitor for and mitigate chronic and acute respiratory conditions</td>
<td>Discussion &amp; Analysis</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Animal Care &amp; Welfare</td>
<td>Percentage of pork produced without use of gestation crates</td>
<td>Quantitative</td>
<td>Percentage by weight (%)</td>
<td>CN0102-14</td>
</tr>
<tr>
<td></td>
<td>Percentage of cage-free shell egg sales</td>
<td>Quantitative</td>
<td>Percentage (%)</td>
<td>CN0102-15</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>CN0102-16</td>
</tr>
<tr>
<td></td>
<td>Amount of nontherapeutic antibiotic usage, percentage of animal production receiving nontherapeutic antibiotics</td>
<td>Quantitative</td>
<td>Metric tons (t)</td>
<td>CN0102-17</td>
</tr>
<tr>
<td>Climate Change Impacts on Livestock Production &amp; Feed Sourcing</td>
<td>Discussion of strategy to manage opportunities and risks to livestock production and feed sourcing presented by climate change</td>
<td>Discussion &amp; Analysis</td>
<td>n/a</td>
<td>CN0102-18</td>
</tr>
<tr>
<td>Environ-mental &amp; Social Impacts of Animal &amp; Feed Supply Chains</td>
<td>Percentage of contract producers verified to meet fair labor standards</td>
<td>Quantitative</td>
<td>Percentage</td>
<td>CN0102-19</td>
</tr>
<tr>
<td></td>
<td>Percentage of livestock from suppliers implementing NRCS Conservation Plans or the equivalent</td>
<td>Quantitative</td>
<td>Percentage by weight (%)</td>
<td>CN0102-20</td>
</tr>
<tr>
<td></td>
<td>Percentage of contract producers in water-stressed regions</td>
<td>Quantitative</td>
<td>Percentage by contract value (%)</td>
<td>CN0102-21</td>
</tr>
<tr>
<td></td>
<td>Percentage of feed sourced from water-stressed regions</td>
<td>Quantitative</td>
<td>Percentage by weight (%)</td>
<td>CN0102-22</td>
</tr>
</tbody>
</table>
Greenhouse Gas Emissions

Description

The Meat, Poultry, and Dairy industry generates significant direct emissions of Scope 1 greenhouse gases (GHG), contributing to climate change and thus facing regulatory risks due to climate change mitigation policies. The majority of emissions in this industry stem directly or indirectly from the animals themselves. The direct emissions from livestock production, including manure management and the processing and transportation of animal products, represent a large portion of global and U.S. GHG emissions. Companies in this industry use large quantities of fossil fuels (in addition to Scope 2 purchased electricity) to meet energy and transportation requirements, which generates additional direct GHG emissions. Given the industry’s considerable contribution to climate-change inducing GHGs, future emissions regulation could result in additional operating or compliance costs. By implementing new technology to capture animal emissions and focusing on energy efficiency, companies can mitigate their exposure to regulation and volatile energy costs and limit their contribution to both direct and indirect 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, and sulfur hexafluoride).

- Emissions of all gases shall be disclosed in metric tons of carbon dioxide equivalents (CO2-e), calculated in accordance with published global warming potential (GWP) factors. To date, the preferred source for GWP factors is the Intergovernmental Panel on Climate Change (IPCC) Second Assessment Report (1995).

- 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.

- Disclosure corresponds to section CC8.2 of the Carbon Disclosure Project (CDP) Questionnaire and section 4.25 of the Climate Disclosure Standards Board (CDSB) Climate Change Reporting Framework (CCRF).7


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7 An update to the responses for CDP Questionnaire section 4.25 of the CDSB CCRF shall be updated to the response to CN0102-01.
• These emissions include direct emissions of GHGs from stationary or mobile sources that include, but are not limited to, equipment, production facilities, office buildings, 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 2013 (hereafter, the “CDP Guidance”).

• The approach detailed in Section 4.23, “Organizational boundary setting for GHG emissions reporting,” of the CDSB Climate Change Reporting Framework (CCRF).

.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 emission disclosure, such as if data are from continuous emissions monitoring systems (CEMS), engineering calculations, mass balance calculations, etc.

CN0102-02. Description of long-term and short-term strategy or plan to manage Scope 1 emissions, including emissions reduction targets and an analysis of performance against those targets

.08 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;

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8 “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.

9 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 CDSB Climate Change Reporting Framework.
• 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.

.09 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 energy efficiency efforts, energy source diversification, carbon capture and storage, etc.

.10 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 Section 4, “Management actions.”

• CDP questionnaire CC3, “Targets and Initiatives.”

.12 Relevant initiatives to discuss may include, but are not limited to, improved feeding practices, enhanced manure management, management of animal breeding practices, and appropriate fire management, consistent with the IPCC Fourth Assessment Report: Climate Change 2007: Working Group III: Mitigation of Climate Change.

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10 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.
Energy Management

Description

Purchased electricity for energy production and consumption contributes to significant environmental impacts, including climate change and pollution, which have the potential to indirectly yet materially impact the results of operation for companies in the Meat, Poultry, and Dairy industry. These firms are highly reliant on energy and fuel as a primary input for value creation in meat and dairy processing facilities. Material benefits can come in the form of incentives for energy efficiency and renewable energy, as rising costs are associated with various forms of energy, and there is risk associated with heavy reliance on specific forms of energy that are facing significant regulation. Decisions about the use of alternative fuels, renewable energy, and on-site generation of electricity (versus purchases from the grid) can play an important role in influencing both the costs and the reliability of the energy supply. 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.

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 (except for fleet vehicles), purchased electricity, and heating, cooling, and steam energy.
- The scope of disclosure excludes fuel consumption by fleet vehicles.

.14 In calculating energy consumption from fuels and biofuels, the registrant shall use higher heating values (HHV), also known as gross calorific values (GCV), and 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 the control or influence of the registrant is excluded from disclosure.11

17 Renewable energy is defined as energy from sources that are capable of being replenished in a short time through ecological cycles, 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.
  
  • Energy from biomass sources is limited to those that are considered “eligible renewables” according to the Green-e Energy National Standard Version 2.4 or that are eligible for a state Renewable Portfolio Standard.

18 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 (including for electricity from solar or wind energy).

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11 SASB recognizes that RECs reflect the environmental attributes of renewable energy that have been introduced to the grid, and that a premium has been paid by the purchaser of the REC to enable generation of renewable energy beyond any renewable energy already in the grid mix, absent the market for RECs.
Water Withdrawal

Description

Water is an essential factor of production in the Meat, Poultry, and Dairy industry, as it is required to hydrate animals and process animal products. The availability of adequate water supplies presents a growing operating challenge. While water has historically been an abundant commodity in many parts of the world, it is becoming an increasingly scarce resource due to population growth, increasing consumption per capita, poor water withdrawal, and climate change. Water scarcity can result in higher supply costs and risks of shortages for companies that rely on stable water supplies, including meat, poultry, and dairy producers. In this industry, operations reliant on surface water for animal hydration and pasture are particularly vulnerable to increases in water stress, and processing facilities need to be located near where the animals are raised.

Accounting Metrics

CN0102-04. Total fresh water withdrawn, percentage recycled, percentage in regions with High or Extremely High Baseline Water Stress

.19 The registrant shall disclose the amount of water (in thousands of cubic meters) that was withdrawn from fresh water sources for use in operations.

- 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 can be assumed to meet the definition of fresh water.12

.20 The registrant shall disclose the total amount of water by volume (in thousands of cubic meters) that was recycled during the fiscal year. This figure shall include the amount recycled in closed-loop and open-loop systems.

- Any volume of water reused multiple times shall be counted as recycled each time it is recycled and reused.

.21 Using the World Resources Institute’s (WRI) Water Risk Atlas tool, Aqueduct (publicly available online here), the registrant shall analyze all of its operations for water risks and identify facilities that are in a location with High (40–80%) or Extremely High (>80%) Baseline Water Stress. Water withdrawn in locations with High or Extremely High Baseline Water Stress shall be indicated as a percentage of the total water withdrawn.

.22 For the registrant’s operations that are not sub-metered in a way that allows direct measurement of water use, estimation is acceptable and shall be disclosed as such.

12 http://water.epa.gov/drink/contaminants/secondarystandards.cfm
Land Use & Animal Waste Management

Description

Meat, poultry, and dairy operations have diverse ecological impacts, including biodiversity loss, which is primarily a result of land use and contamination by waste. The primary channels of impact are contamination of water, air, and land and land degradation, including deforestation and erosion. While the impacts are different, both traditional and Concentrated Animal Feeding Operations (CAFO) lead to significant land ecological impacts. Non-CAFO animal farming, which requires large tracts of pastureland, can lead to physical degradation of land resources. The primary concern for CAFOs and animal product processing facilities is the generation of animal waste, which can release pollutants into the environment. 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. Companies could face regulatory or reputational barriers to expanding operations in ecologically sensitive areas due to more stringent permitting, including rules to protect ecosystems and endangered species. Water contamination may also indirectly affect the industry by increasing treatment costs for purchased or naturally sourced water.

Accounting Metrics

CN0102-05. Number of incidents of non-compliance with water quality permits, standards, and regulations

.23 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.

- The scope includes instances from operations that the registrant owns and operates and those with which it directly contracts animal production.

.24 The scope of disclosure includes incidents related to statutory permits and regulations or voluntary agreements, standards, or guidelines, such as total maximum daily load (TMDL) exceedances.

.25 Voluntary standards include, among others, the registrant’s own water quality standards (parameters) or “effluent guidelines” from the International Finance Corporation’s (IFC) Environmental, Health, and Safety Guidelines as outlined in the following industry-specific guidelines, where production guidelines correspond to rearing activities and processing guidelines relate to the processing of animals into products to be sold:

- Mammalian Livestock Production
- Poultry Production
- Dairy Processing
- Meat Processing
- Poultry Processing
.26 Typical parameters of concern include total nitrogen, total phosphorous, biological oxygen demand (BOD), chemical oxygen demand (COD), total coliform bacteria, total suspended solids (TSS), oil and grease, temperature increase, and pH.

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

.28 Violations, regardless of their measurement methodology or frequency, shall be disclosed. These include:

- For continuous discharges, limitations, standards, and prohibitions that are generally expressed as maximum daily, weekly average, and monthly averages.
- For non-continuous discharges, limitations that are generally expressed in terms of frequency, total mass, maximum rate of discharge, and mass or concentrations of specified pollutants.

CN0102-06. Amount of animal litter and manure generated, percentage managed according to a nutrient management plan

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

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

.30 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, feed and other raw materials storage areas, animal mortality facilities, the 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, and to which manure or process wastewater is, or might be, applied for crop, hay, pasture production, or other uses.

.31 At a minimum, the nutrient management plan shall meet the minimum specific elements of the 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
**CN0102-07. Percentage of pasture and grazing land managed to NRCS Conservation Plan criteria**

.32 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.

.33 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.

.34 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.

.35 The scope includes land that is owned, operated, and/or controlled by the registrant.

**CN0102-08. Animal protein production from concentrated animal feeding operations (CAFO)**

.36 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.

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

.38 The registrant may choose to provide a breakdown of the amount of production from CAFOs it owns and operates as compared to CAFOs owned and operated by third parties.
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 issues include sub-therapeutic antibiotic use in animal raising. Food safety practices and procedures in the meat processing 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. As food safety issues may arise at any time during the production or processing phase, companies can be impacted through product recalls, damaged brand reputation, and increased regulatory scrutiny, making it an important issue to manage effectively.

Accounting Metrics

CN0102-09. Number of recalls issued, total weight of product recalled

.39 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.

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

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

.42 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 CN0102-09.

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

.44 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 USDA)
• Corrective actions
• Any other significant outcomes (e.g., legal proceedings or fatalities)

CN0102-10. 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

.45 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.

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

.47 The registrant shall calculate and disclose the major non-conformance rate as: 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.

• Priority non-conformances may also be referred to as critical non-conformances.

.48 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.

.49 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, but not 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.

.50 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, but not 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.

.51 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.
.52 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

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

**CN0102-11. Discussion of markets banning imports of the registrant's products**

.54 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.

.55 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).

.56 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

Bureau of Labor Statistics (BLS) data indicates that the Meat, Poultry, and Dairy industry has relatively high injury rates compared to other industries. Common hazards include falls, transportation accidents, heat-related injuries, asphyxiation, and machinery injuries. Industry safety data indicates persistently high accident and fatality rates, despite advances in safety technology and awareness. Exposure to hazardous air emissions, 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 risk exposure can result in costly lawsuits and employee health and safety violations. 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

CN0102-12. (1) Total Recordable Injury Rate (TRIR) and (2) Fatality Rate

.57 For registrants whose workforce is entirely U.S.-based, the registrant shall disclose its 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.

.58 For registrants whose workforce includes non-U.S.-based employees, the registrant shall calculate its 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.

.59 The registrant shall disclose its TRIR and Fatality Rate for all employees, including direct, full-time employees; contract employees; and seasonal and migrant employees.

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

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

CN0102-13. Description of practices to monitor for and mitigate chronic and acute respiratory conditions

.62 The registrant shall discuss efforts to assess, monitor, and mitigate chronic and acute respiratory conditions in employees, where:

- Chronic respiratory conditions include, but are not limited to, chronic bronchitis, chronic lung disease (e.g., COPD), declines in lung functioning, organic toxic dust syndrome, and conditions resulting from particulate matter.
- Acute respiratory conditions include, but are not limited to, chemical burns, inflammation of the respiratory tract, acute or subacute bronchitis, and death.

.63 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.
Animal Care & Welfare

Description

Consumer and regulatory trends are key value drivers of demand in the Meat, Poultry, and Dairy industry. Issues concerning animal treatment and the methods by which animals are produced are increasingly under public and regulatory scrutiny. In recent years, consumers have shifted demand away from specific production methods that are viewed as inhumane and unhealthy. These issues include animal welfare and the use of antibiotics and growth hormones. In the U.S., farm animals are largely excluded from federal and state animal welfare statutes, including the Animal Welfare Act. Thus, the pressure on the industry to improve animal welfare and certain animal-raising methods have come from consumer and advocacy group action and shifting consumer trends. Companies that are prepared to meet these shifting trends may achieve a competitive advantage by better capturing market demand and complying with new regulations.

Accounting Metrics

CN0102-14. Percentage of pork produced without use of gestation crates

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 had already been processed).

A gestation crate is defined as 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.

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.

The registrant should discuss, where relevant:

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

- Requirements that key customers have 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.

CN0102-15. Percentage of cage-free shell egg sales

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.

.69 The scope includes eggs produced by the registrant, those for which it contracts production, and those it purchases from independent producers for resale.

**CN0102-16. Percentage of production certified to a third-party animal welfare standard**

.70 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 had already been processed).

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

.72 Animal welfare standards are those 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

.73 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.

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

.75 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).

**CN0102-17. Amount of nontherapeutic antibiotic usage, percentage of animal production receiving nontherapeutic antibiotics**

.76 The registrant shall disclose the amount, in metric tons, of antibiotics it used for nontherapeutic purposes, where:
• Usage shall be calculated as beginning inventory of this category of antibiotics plus purchases of these antibiotics, less ending inventory of these antibiotics.

.77 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.

.78 The registrant shall calculate and disclose the percentage as the total weight of animal protein production from animals that received nontherapeutic antibiotics during their lifetime divided by the total weight of animal protein production.

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

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

.79 The scope of antibiotics includes both antibiotics that treat human disease and those that do not (e.g., ionophores).
Climate Change Impacts on Livestock Production & Feed Sourcing

Description

Climate change presents a long-term challenge for the Meat, Poultry, and Dairy industry. The global footprint of top companies in this industry heightens the probability of diverse physical impacts within operations. Warmer average global temperatures are expected to contribute to a wide variety of climatic outcomes, including variations in precipitation patterns, increased magnitude of temperature extremes, and more frequent or severe storms. These climatic outcomes can significantly affect the factors of production within this industry, including animal feed crops, grasslands, and water availability. Furthermore, climate change is expected to increase the number and range of animal diseases and pests, while temperatures beyond the normal ranges for animals can affect animal health. Adaptation to a changing climate is a critical long-term concern for the industry.

Accounting Metrics

CN0102-18. Discussion of strategy to manage opportunities and risks to livestock production and feed sourcing presented by climate change

.80 The registrant shall discuss the risks and/or opportunities to its livestock production and feed sourcing 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.

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

.81 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 increased extreme weather events.

.82 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 livestock (i.e., beef cattle, dairy cattle, pigs, poultry, etc.) and feed (i.e., soybean meal, cornmeal and other grains, hay, forage, etc.) would specifically be affected or how other operating conditions would be affected (e.g., transportation and logistics, physical infrastructure, etc.).

.83 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.

.84 The registrant may include discussion on 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).
.85 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.

.86 Climate change mitigation strategies in which the registrant engages, such as the reduction of direct CO$_2$ emissions or the promotion of reduced-emissions techniques to partners (e.g., contact growers or independent suppliers), shall be addressed in CN102-02.
Environmental & Social Impacts of Animal & Feed Supply Chains

Description

Environmental & Social Impacts of Animal & Feed Supply Chains for meat, dairy, and poultry producers includes the management of environmental and social issues that can affect the industry’s sourcing of animal feed and animals. Key supply chain risks include land management, labor conditions, and environmental impacts of cultivation. Additionally, climate change and water scarcity increasingly affect the production of animal feed and animals. Non-vertically integrated companies source a significant portion of their inputs from farmers or other corporations that operate farming operations. Thus, assessing and managing environmental and social issues within the supply chain is critical to securing a stable supply of raw materials and reducing the risk of cost increases.

Accounting Metrics

CN0102-19. Percentage of contract producers verified to meet fair labor standards

.87 The registrant shall calculate the percentage as the number of its contract producers that have been verified to meet fair labor standards divided by the total number of contract producers with which the registrant engages, where:

- 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.

.88 At a minimum, fair labor standards shall include the requirements of the Social Accountability 8000 International Standard, June 2014 (SA8000®: 2014), which are organized into the following nine categories:

- Child labor
- Forced or compulsory labor
- Health and safety
- Freedom of association & right to collective bargaining
- Discrimination
- Disciplinary practices
- Working hours
- Remuneration
- Management system
At a minimum, verification of a contract producer’s compliance with fair labor standards shall include inspection or auditing conducted but the registrant (i.e., first-party verification).

The registrant should describe the source of its fair labor standards and indicate how compliance is verified (e.g., though first-party verification, third-party auditing, etc.).

**CN0102-20. Percentage of livestock sourced from suppliers implementing NRCS Conservation Plans or the equivalent**

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 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.

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.

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.

**CN0102-21. Percentage of contract producers in water-stressed regions**

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.

**CN0102-22. Percentage of feed sourced from water-stressed regions**

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.

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