



BASIS OF PREPARATION: ESG REPORT 2022 Syngenta AG group

for the performance indicators included in the
Non-financial performance summary of our
Syngenta AG group ESG Report 2022

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1 Introduction

The Basis of Preparation: ESG Report 2022 defines the key performance indicators (KPIs) reported in the Syngenta AG group Environmental, Social and Governance Report (ESG Report) 2022. It also explains the methodology used to calculate the KPIs.

The Syngenta AG group ESG Report addresses non-financial reporting requirements from selected reporting standards and frameworks, in particular the Global Reporting Initiative (GRI Universal Standards 2021), the Sustainability Accounting Standards Board, the Task force on Climate-related Financial Disclosures, and the United Nations Global Compact.

We aim to update the Basis of Preparation on an annual basis alongside our ESG Report to reflect any changes in methodology. This document was published on May 11, 2023 on www.esg-reporting.syngenta.com

Should you have any questions, please contact us at: sustainability.syngenta@syngenta.com

2 Scope

This document covers the KPIs reported in the Non-financial performance summary of the Syngenta AG group ESG Report 2022. Most of these KPIs are in scope of our external assurance process as indicated in the Independent Limited Assurance Report.

The ESG Report 2022 is for Syngenta AG group. Syngenta AG group (also referred to as 'Syngenta' in this document) encompasses Syngenta AG, a company domiciled and incorporated in Switzerland, and all of its more than 150 subsidiaries globally and covers the following operations of Syngenta Group: Syngenta Crop Protection, Syngenta Seeds and the operations of Syngenta AG group that now form part of Syngenta Group China.

Data presented in the Syngenta AG group ESG Report 2022 relates to the period of October 1, 2021 to September 30, 2022 (the report also includes comparative data from 2021 and 2020) unless otherwise specified.

3 Our approach to reporting

Syngenta has established internal processes and related controls for reporting non-financial information in our ESG Report. These internal controls are designed to provide assurance to our Board of Directors and management on the reliability of our non-financial reporting and the fair presentation of the information published in the ESG Report's Non-financial performance summary.

In designing internal controls for non-financial reporting, we used the criteria established in COSO's Internal Control – Integrated Framework (2013). We implemented an internal control environment supported by sound reporting processes, clearly defined accountabilities, and detailed documented procedures. All internal controls, no matter how well designed, have inherent limitations and therefore may not prevent or detect misstatements.

Our Sustainability Reporting Guideline directs our non-financial reporting activities and sets the principles that govern ESG reporting at Syngenta. Our reporting Standard Operating Procedures (SOPs) explain how the Sustainability Reporting Guideline is implemented. SOPs outline what needs to be reported (e.g., performance indicator definition and scope), which tasks need to be performed (e.g., measure, gather, transform, consolidate), who performs the tasks, when the tasks are performed, and which systems and key internal controls are in place. The Basis of Preparation: ESG Report 2022 (this document) summarizes the content of these SOPs.

Syngenta seeks external assurance for selected non-financial information published in our Syngenta AG group ESG Report every year. The limited assurance opinion is published in the Syngenta AG group ESG Report.

The ESG team manages the data collection and preparation of the Syngenta AG group ESG Report. The team also works with corporate functions to update KPIs and content in the report to align with new disclosure requirements. The team is also responsible for working with corporate functions to improve ESG reporting processes and internal controls, and for coordinating the external assurance of the selected KPIs.

3.1 Corporate data consolidation

Syngenta corporate functions (e.g., HSE, HR, Corporate security, Compliance) are responsible for data collection, consolidation, and quality control. Each function has its own reporting processes, systems, and SOPs. Data is used for internal performance management and selected KPIs also for external reporting.

Once a year, functions report on selected KPIs for inclusion in the ESG Report. They report using the annual report data collection tool managed by the ESG team. Data is reviewed and approved by each function before submission in the tool. Additional checks are also conducted by the ESG team before data is submitted for external assurance.

3.2 Review and approval of ESG Report

The content of the Syngenta AG group ESG Report is reviewed and approved by the corporate function experts and leaders responsible for the different subject matters addressed in the report. The consolidated report is then reviewed by senior sustainability leaders, the legal team, and other key corporate functions before being submitted to the Group Leadership Team for approval. The Syngenta AG group ESG Report is then reviewed by the Sustainability Committee of the Syngenta Group Co. Ltd. Board of Directors, and approved by the Board of Directors of Syngenta AG before publication.

The Basis of Preparation: ESG Report document is reviewed and approved by the function experts and leaders responsible for the KPIs reported in the Syngenta AG group ESG Report.

3.3 Restatements

To increase accuracy and ensure consistency over time, we may perform restatements of prior years' figures. These restatements are performed where we consider there to be material changes in reporting standards and methodologies, or in previously reported values due to errors or reclassification. Reclassification of cases (e.g., health and safety recordable cases or substantiated cases of bribery and corruption) may be triggered by the results of an investigation which was concluded after the data collection cut-off date.

4 KPIs and basis of preparation

This section is organized in four areas in line with our ESG Report and presents the KPIs reported in its Non-financial performance summary.

KPIs measuring progress toward our Good Growth Plan targets are labeled as **GGP**.

4.1 Sustainable agriculture

4.1.1 Innovation in agriculture

Investment in sustainable agriculture breakthroughs (GGP)
<p>Definition</p> <p>This KPI measures the amount of investment (in USD million), which directs resources to breakthrough outcomes as defined in our Sustainability Investment Criteria. The total investment is the cumulative investment in the following categories:</p> <ul style="list-style-type: none"> • Crop Protection (CP) and Seeds R&D investments are those related to the research and development of new qualifying CP and Seeds products, which are considered to advance specific priority practices and breakthrough outcomes, as outlined in the Sustainability Investment Criteria. • Operations-based investments are related to capital expenditure in operations and site infrastructure. They either: <ul style="list-style-type: none"> ○ Improve the company's net environmental footprint and deliver measurable progress toward meeting at least one of Syngenta's waste, water, health and safety, and carbon reduction targets (including projects that drive cost productivity improvements in operations as a result of reducing resource consumption). In the case of health and safety, only investments delivering a clear step-change beyond established company and local standards are considered. ○ Enable the production and supply of CP and Seeds products, which qualify for CP and Seeds R&D investments. • Investments in in-country sustainability projects include sustainability investments and costs from soil conservation, biodiversity enhancement, and lowest residue projects. (See Soil health, Biodiversity and Lowest residues in crops and the environment) • Other sustainable investments include investments in mergers and acquisitions (M&A), partnerships and other initiatives, which are not considered in the above categories but qualify as a sustainability investment. <p>Scope</p> <ul style="list-style-type: none"> • Global scope: Supply chain, own operations, and downstream activities • Reporting period: October 1 to September 30 (operations-based investments and investments in in-country sustainability projects) and January 1 to December 31 (CP and Seeds R&D investments and other sustainable investments) • GGP target: ✓ <p>Methodology</p> <p>The eligible investments are determined as follows:</p> <ul style="list-style-type: none"> • CP and Seeds R&D investments are tracked on the R&D project and portfolio management platform. Information recorded includes project description, status, stage, costs, and category. Information from active CP and Seeds R&D projects in eligible categories is exported from the platform as of September 30 for classification and validation. Projects are classified by R&D project

managers using the five-step assessment process of our Sustainability Investment Criteria and validated by the sustainable agriculture teams in both CP and Seeds businesses. R&D investments are compiled for the calendar year to align with budget cycles. Investments are calculated based on budget estimates from January through December, utilizing the most recent and reliable budget data available extracted by the end of September. Only costs within the reporting period of the projects classified as 'sustainability as new market segment' and 'sustainability differentiates the product brought to market' count toward the total investment amount.

- **Operations-based investments** are tracked in the capital project tracking tool called PPMCapEx. Information recorded includes investment category and associated spend. We only consider projects related to capital expenditure in operations and site infrastructure that were completed within the reporting period. If the primary purpose of the investment is to address a sustainability outcome as described above, the entire investment is considered. If the primary purpose is different, only the proportion to address the outcome is counted. The Production and Supply, and Engineering teams validate the investment category and spend of qualifying projects.
- **Investments in in-country sustainability projects** are reported through the Good Growth Plan (GGP) data collection tool as described in the sections [Lowest residues in crops and the environment](#), [Soil health](#), and [Biodiversity](#). Investments in this category are compiled based on costs incurred toward the implementation of qualifying in-country sustainability projects within the October to September reporting period.
- **Other sustainable investments** are reported to the ESG team for validation. Potential other sustainable investments (e.g., M&A, partnerships, initiatives) could be proposed by anyone in the organization and require review by senior leaders and/or external partners. Other sustainable investments represent the incurred costs in the calendar year to align with financial reporting, especially in the case of mergers and acquisitions.

SOP:

- ➔ Reporting on sustainability investment and breakthroughs for Crop Protection R&D, Seeds R&D, operations, in-country projects, and other activities

Sustainable technology breakthroughs (GGP)

Definition

This KPI measures the number of technological breakthroughs or clear differentiation brought to market enabling a step change in sustainability and contributing to breakthrough outcomes as defined in our [Sustainability Investment Criteria](#). The products, services or projects are only considered in the launch year:

- **CP and Seeds R&D breakthroughs** that have their first commercial sales within the reporting period.
- **In-country sustainability projects** (i.e., soil conservation, biodiversity enhancement, and lowest residue programs) launched within the reporting period.
- **Other sustainability breakthroughs** with the main investment made within the reporting period.

Scope

- Global scope: Supply chain, own operations, and downstream activities
- Reporting period: October 1 to September 30 (investments in in-country sustainability projects) and January 1 to December 31 (CP and Seeds R&D investments, and other sustainable investments)
- GGP target: ✓

Methodology

For each sustainable agriculture breakthrough investment category described above, potential qualifying products, projects and services are proposed to the Technological Breakthrough Steering Committee. The committee, which includes selected regional and functional subject-matter experts,

evaluates submitted entries to assess their alignment with the [Sustainability Investment Criteria](#) and KPI definition. Input from senior leaders within the organization is also sought. The committee then recommends the selected sustainable technology breakthroughs to the Chief Sustainability Officer for approval.

SOP:

- ➔ Reporting on sustainability investment and breakthroughs for Crop Protection R&D, Seeds R&D, operations, in-country projects, and other activities

4.1.2 Lowest residues in crops and the environment

Crops produced with programs for lowest residues in crops (GGP)

Definition

This KPI measures the tonnes (metric tons) of crop produced in fields enrolled in a lowest residue crop protection (CP) program. Where:

- **Lowest residue CP programs** are defined as projects or commercial offers to customer growers, who receive ongoing in-season advice, tools, and support from Syngenta and its partners to meet lowest residue targets.
- **Lowest residue targets** in crops are defined at program level as targets differ depending on market needs (e.g., below residue market averages, according to legal requirements such as Maximum Residue Limits or voluntary secondary standards).

Scope

- Global scope: Downstream activities
- Reporting period: October 1 to September 30
- GGP target: ✓

Methodology

Tonnes of crops produced by participating farmers in lowest residue CP programs within the reporting year are documented and reported by country teams in the GGP data collection tool. For each program, the location, type of program, program cost, crops and volume produced are indicated.

Where the volume of crop produced is not available, the total hectares by crop are reported. In this case, the total volume of each crop reported by hectare is calculated by multiplying the hectares by crop using the latest 5-year national crop yield average from the Food and Agriculture Organization (FAO). The crop volumes are then aggregated across crops into a single number.

The volume of crops or total hectares are extracted from contracts between farmers enrolled in the program and value chain buyers or from third-party reports stating the hectares or crop volumes of farmers enrolled in the program.

SOP:

- ➔ Reporting on lowest residues in crops

4.1.3 Carbon capture and mitigation in agriculture

Carbon benefit potential on farmland (GGP)
<p>Definition This KPI measures the estimated annual carbon mitigation potential (in 000s tonnes CO₂e) resulting from the adoption of our soil conservation and biodiversity enhancement projects (See Soil health and Biodiversity). The potential is characterized by the net change in soil carbon pools, reflecting the accumulated difference between carbon inputs to the soil after CO₂ uptake by plants, and the release of CO₂ by decomposition in the soil.</p> <p>Scope</p> <ul style="list-style-type: none"> • Global scope: Downstream activities • Reporting period: October 1 to September 30 • GGP target: ✓ <p>Methodology The carbon benefit potential is calculated based on the number of hectares in which specific soil conservation or biodiversity enhancement practices were applied within the reporting year.</p> <p>The number of hectares of farmland where at least one soil conservation or biodiversity enhancement (S&B) practice is implemented, along with the corresponding soil and/or biodiversity practice(s) and the project climate zone(s), are reported in the GGP data collection tool as outlined in the Soil health and Biodiversity sections.</p> <p>The hectares of farmland are multiplied by the annual mitigation potential of the corresponding soil or biodiversity practice and the climate zone where the project was implemented, according to the formula below:</p> $S\&B \text{ (ha)} \times \text{mitigation potential} \left(\frac{\text{tCO}_2\text{e}}{\text{ha}} \right) = \text{mitigation} \left(\frac{\text{tCO}_2\text{e}}{\text{yr}} \right)$ <p>Where multiple practices are adopted for a project, only one practice (the one with the highest mitigation potential) is considered. For projects that are implemented in multiple climate zones, an average mitigation potential of the corresponding practice across the different climate zones is taken into account.</p> <p>The annual mitigation potentials of the corresponding practices and climate zones are outlined in Table 8.4 of Working Group III Contribution to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). The IPCC climate zones are aligned with the Köppen-Geiger climate classification.</p> <p>SOP: ➔ Reporting on carbon benefit on farmland</p>

4.1.4 Soil health

Hectares of farmland benefited by soil conservation measures (GGP)
<p>Definition This KPI measures the land area positively impacted (in million hectares) by the implementation of sustainable soil management or conservation agriculture practices such as minimum or no tillage, crop</p>

rotation, permanent ground cover, soil nutrient management, controlled farm machinery traffic, water management, and weed control.

Scope

- Global scope: Supply chain and downstream activities
- Reporting period: October 1 to September 30
- GGP target: ✓

Methodology

To measure progress, we track the number of:

- **Implemented hectares** of farmland where sustainable soil management or conservation agriculture practices are introduced within the reporting period. Any of the following hectares are accounted for:
 - Hectares where at least one sustainable soil management practice is introduced.
 - Hectares that are managed by growers, who received training on how to prevent soil degradation and improve soil fertility.
 - Hectares on which growers use farm management tools, including agro-business technologies that support healthier soils and prevent soil contamination.
- **Benefited hectares** of farmland that benefit from the implementation of sustainable soil management or conservation agriculture practice(s).

The number of hectares is accounted for in the reporting year in which a sustainable soil management or conservation agriculture practice has been implemented. For projects involving multiyear implementation techniques (e.g., crop rotation), the implementation is considered complete at the end of the implementation cycle.

In most cases, where a soil management practice is implemented, the benefited hectares equal implemented hectares. In exceptional cases, a soil management practice can benefit a larger area of farmland beyond the area where it is implemented. In such cases, the benefited hectares are estimated based on third-party evidence, internal expert opinion or benchmark data from a similar project.

In-field assessments of the hectares implemented with and benefited from soil conservation practices are conducted and documented by country teams and external stakeholders. In projects where growers receive training, and/or technical solutions/tools for on-farm use have been provided, the evidence of the actual implementation of sustainable soil practices is considered to calculate the benefited hectares. Where evidence of implementation is not available, a conservative algorithm based on available research and Syngenta's on-the-ground experience is applied. It considers that 30% of the total number of hectares managed by growers trained or using technical solutions are implemented hectares. The conversion rate of 1:1 is then applied to convert implemented hectares to benefited hectares.

The project information is tracked and reported by country teams in the GGP data collection tool and consolidated at global level. For each soil conservation activity reported, the project manager provides the soil practice(s), the type of activity, project cost, project location, climate zone(s), implemented and benefited hectares, and (if applicable) the number of people trained, and the topics covered.

SOP:

- ➔ Global reporting on soil health

4.1.5 Biodiversity

Hectares of farmland benefited by biodiversity enhancement measures (GGP)**Definition**

This KPI measures the land area positively impacted (in million hectares) by the implementation of biodiversity enhancement measures. These include the re-introduction of local species and buffers for soil and water protection through practices such as multi-functional field margins (MFFMs), managed forests and riparian lands, agro-forestry, managed wetlands, and in-situ genetic diversity conservation.

Scope

- Global scope: Supply chain and downstream activities
- Reporting period: October 1 to September 30
- GGP target: ✓

Methodology

To measure progress, we track the number of:

- **Implemented hectares** of farmland where at least one biodiversity enhancement practice is introduced within the reporting period. Any of the following hectares are accounted for:
 - Hectares where at least one biodiversity enhancement practice is introduced.
 - Hectares that are managed by growers, who received training on how to manage and enhance biodiversity at and around the farm.
 - Hectares on which agriculture inputs (e.g., seeds, fertilizers, and crop protection) or farm diagnostic and management tools are adopted to support the enhancement of biodiversity or prevent the destruction of natural habitat in agriculture landscapes.
- **Benefited hectares** of farmland that benefit from the implementation of biodiversity enhancement practice(s).

The number of hectares is accounted for in the reporting year in which a biodiversity enhancement practice has been implemented. For projects involving multiyear implementation techniques (e.g., managed forests and wetlands), the implementation is considered complete at the end of the implementation cycle.

In most cases, the benefited hectares are larger than the area where a biodiversity enhancement practice is implemented.

Multi-functional field margins introduced in fields off-crop areas are expected to benefit a significant area beyond the managed margins. Based on existing literature, the assumption is that agro-ecosystem resilience may be appreciated when a minimum of 3% of farmland is devoted to managed margins (e.g., if 3 hectares are devoted to managed margins, 100 hectares could be reported as the land area benefited from managed margins).¹

In-field assessments of the hectares implemented with and benefited from biodiversity enhancement measures are conducted and documented by country teams and external stakeholders. In projects that involve training and/or provision of technical solutions/tools, the evidence on actual implementation of biodiversity enhancement is considered, and the benefited hectares are estimated based on local internal expertise or available benchmark data.

In the absence of supporting evidence for calculating implemented and benefited hectares through grower training and technical solutions, a conservative algorithm based on available research and Syngenta's on-the-ground experience is applied. It considers that 30% of the total number of hectares managed by growers trained or using technical solutions are implemented hectares. The conversion rate of 1:1 is then applied to convert implemented hectares to benefited hectares.

The project information is tracked and reported by the country team in the GGP data collection tool and consolidated at global level. For each biodiversity enhancement activity reported, the project manager provides the biodiversity practice(s), the type of activity, project cost, project location, climate zone(s), implemented and benefited hectares, and (if applicable) the number of people trained, and the topics covered.

SOP:

➔ Global reporting on biodiversity

¹ Determining the appropriate size of edge habitat is complex and depends on various factors. The exact percentage of farmland devoted to managed biodiversity is determined at local level based on local conditions. Following consultation with scientists and conservation experts, and based on available studies and project reports, we believe that 3% is a suitable conversion ratio for measuring farmland benefited by MFFMs. For more information, see the position paper from Syngenta, Arcadis, and Biodiversity International on [Multifunctional Field Margins: Assessing the benefits for nature, society and business \(April 2018\)](#)

4.1.6 Safe use of products

People trained in safe use (GGP) and Smallholders trained in safe use

Definition

These KPIs measure the number of people (e.g., farm workers, farm owners, product distributors, and other people who may be exposed to crop protection products) and smallholder farmers trained on the safe use of crop protection products.

Only training activities addressing the '5 Golden Rules' for the safe use of crop protection products are considered. These rules outline the basic standards required for the safe use of crop protection products:

- Exercise caution at all times
- Read and understand the product label
- Practice good personal hygiene
- Take care of and maintain application equipment
- Wear appropriate Personal Protective Clothing and Equipment (PPE)

The number of people trained comprises people trained through any of the following activities:

- **Awareness raising training**, which comprises training activities, commercial events, and other activities addressing the 5 Golden Rules for at least 15 minutes.
- **Dedicated training**, which tackles specialized safe use topics, such as sprayer operator or medical training, for at least 60 minutes.

Training sessions are either conducted by Syngenta or together with training partners (e.g., government agencies, NGOs, and industry associations).

Smallholder farmers are defined by their farm size, which can vary between 0.1 to 20 hectares. The average farm size is defined by the specific crop and country.

Scope

- Global: Downstream activities
- Reporting period: October 1 to September 30
- GGP target: ✓

Methodology
 Training activities are coordinated by different teams on the ground, including Product Stewardship, Commercial, Sustainable and Responsible Business or R&D. Trainings delivered within the reporting period are tracked by country teams, reported in our GGP data collection tool, and consolidated at global level. For each training activity reported, teams specify the training date, number of people trained, profile of people, percentage of people considered as smallholders, and duration of training sessions, among other information.

SOP:
 → Global reporting on labor safety training

Countries with established Syngenta product toxicovigilance programs and Crop Protection sales represented

Definition
 This KPI measures the number of countries that have Syngenta product toxicovigilance programs in place, meaning that an agreement with a local poison center or a hospital helpline is established to provide attending physicians with 24/7 medical advice on the treatment of health effects following the misuse of pesticides. To show the relative significance of these programs to our business, we also indicate the proportion (%) of Crop Protection sales linked to these countries.

Scope

- Global scope: Downstream activities
- Reporting period: October 1 to September 30
- GGP target: ✖

Methodology
 The number of countries is as of September 30 of the reporting year. The list of countries is maintained centrally with input from country teams. The existence of a toxicovigilance program is supported through written contracts between Syngenta and local poison control centers and/or product labels, including a local poison control center number (hotline).

The share of Crop Protection sales in the countries with established toxicovigilance programs within a reporting period is calculated as a percentage of the total Crop Protection sales percentage in the same period. The Crop Protection sales are derived from the company’s financial system.

SOP:
 → Global reporting on countries with toxicovigilance programs

4.2 Sustainable operations

4.2.1 GHG emissions

Scope 1 and 2 CO₂e emissions (GGP)

Definition
 These KPIs measure our direct scope 1 emissions and indirect scope 2 emissions. We use the [GHG Protocol Corporate Accounting and Reporting Standard](#) to prepare our corporate-level emissions inventory and report emissions in thousand tonnes of carbon dioxide equivalent (CO₂e). We report our GHG emissions using the operational control approach.

Scope 1 emissions are the sum of:

- **Emissions from own operations**, defined as the sum of on-site emissions calculated from the following sources:
 - Fuels used for combustion, including coal, gasoline, diesel, heating oil, natural gas, LPG, and other non-renewable non-standard fuels. (See [Energy](#) section)
 - Direct emissions of carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (NO_x) from the use of fuels as feedstock or generated due to chemical reactions. This does not include emissions from combustion type abatement systems such as thermal oxidizers, which are already included in the emissions from combustion of non-renewable fuels.
 - Global Warming Potential (GWP) gases above the threshold of 50kg or 100lb for the year not listed above. This includes emissions from process sources (channeled) and accidental releases from refrigerant and chiller systems.
- **Emissions from company vehicles**, defined as the emissions from consumption of standard fossil fuels (gasoline, diesel, LPG) for workplace transport in vehicles owned or leased by the company.

The GWP values are based on the IPCC Sixth Assessment Report, 2021 (AR6). The change from AR5 was made in 2022.

If there is no separate arrangement to track the fuel consumption by type of use, then the breakdown of fuel for vehicles and other combustion uses is estimated.

Scope 2 emissions arise from the generation of purchased energy such as electricity, steam, heat, and cooling. In our ESG Report, we report scope 2 emissions using a market-based approach. In our [CDP Climate Change submission 2022](#), we also report scope 2 emissions using a location-based approach.

Site-specific scope 2 emissions from purchased electricity are calculated using the following methods as set out in the [GHG Protocol Scope 2 Guidance](#), in order of preference:

- **Market-based**, which derives emission factors from contractual instruments, including contracts at site level using non-grid average carbon emissions.
- **Residual mix**, a market-based approach used mainly in Europe, which takes into account national or regional carbon emission factors associated with commercial electricity generation after renewable energy has been discounted. This approach applies to all sites in countries with standard (non-green) electricity supply contracts.
- **Location-based**, which derives emission factors from the average emission intensity of local grids using internationally recognized emission factor libraries, such as the International Energy Authority for most countries or the 'e-grid' for US states.

Emission factors for steam, heat and cooling are calculated from the emission factor per unit of the energy of the fuel used for the generation, divided by the thermal efficiency of the generation process. Where data is not available from the supplier, a suitable standard factor obtained from an international commercial database is used.

Scope

- Global scope: Own operations
- Reporting period: October 1 to September 30
- GGP target: ✓

Methodology

Environmental and sustainability data is collected from our sites using the Syngenta Environmental Reporting and Management (SERAM) reporting tool on an annual basis. Sites report their actual generation, consumption and usage for the reporting period.

The sites required to report are selected based on their level of energy consumption, water usage and waste generation according to defined thresholds, i.e., sites with energy consumption above 0.1% of the total Syngenta consumption (>8,500 GJ/year) must report. Smaller sites can be included if their waste generation or water use is significant (above 0.1% of the Syngenta total) or at the request of site, regional or global environmental managers.

The site-level data submitted in the SERAM reporting tool is validated by Regional Environmental Managers before final review and consolidation by the Global Environmental team.

SOP:

- ➔ Reporting on carbon, water and waste footprint in operations
- ➔ HSE Guide SERAM Reporting

Scope 3 CO₂e emissions (GGP)

Definition

These KPIs measure indirect emissions not included in scope 2 that occur in Syngenta's value chain, including both upstream and downstream emissions. We use the [GHG Protocol Corporate Accounting and Reporting Standard](#) and associated [Corporate Value Chain \(Scope 3\) Standard](#) and the [Technical Guidance for Calculating Scope 3 Emissions](#) to prepare our corporate-level scope 3 emissions inventory. We report emissions in thousand tonnes of carbon dioxide equivalent (CO₂e).

Scope

- Global scope: Supply chain and downstream activities
- Reporting period: October 1 to September 30
- GGP target: ✓

Methodology

Scope 3 emissions are calculated using a hybrid approach of spend-based, average data and supplier-specific methods, depending on the type of process or material and data availability.

The **spend-based method** uses environmentally-extended input-output (EEIO) models for making a first estimate of a corporate footprint, filling data gaps, and testing significance/materiality. The **average data method** uses average industry cradle-to-gate Life Cycle Assessment (LCA) and Life Cycle Inventory (LCI) data for the production of products (e.g., raw materials, specialty chemicals, crops, energy, etc.). The **supplier-specific method** uses product data from key suppliers.

Where the quantity of material is relevant and measured in standardized (metric or imperial) units, the quantity-based emission factors and the average data method are used. Where quantity is not a relevant metric (such as hours of consulting or engineering work) or standardized (such as number of pieces of packaging, or number of boxes of labels), the spend-based method is used. In 2022, we continued our efforts to collect supplier data to further improve the calculation method. Additional new supplier product data was used in the calculation, replacing database emission factors.

All calculations for emission factors for the average-based method are consistent with Global Warming Potentials (GWP) from the IPCC Sixth Assessment Report, 2021 (AR6), and include all GWPs as per the GHG Protocol. The change from AR5 was made in 2022. Starting 2022, we also use the USEEIO 2013 model instead of the USEEIO 2002 model for the spend-based calculation method.

Scope 3 emissions for each category are calculated as follows:

- **Category 1 – Purchased goods and services:** We use both direct and indirect procurement data through a combination of supplier data (where available), volume-based data (where quantities are measured in metric unit of measurement), and spend-based factors if necessary (particularly for

indirect procurement). The calculation is made using an in-house algorithm, which increases replicability and transparency compared to a manual calculation process.

- **Category 2 – Capital goods:** We use indirect procurement data. As the quantity of capital goods is rarely measurable in metric units, calculations are based on the spend-based method.
- **Category 3 – Fuel- and energy-related activities:** We use indirect procurement data and the spend-based method.
- **Categories 4 and 9 – Upstream and downstream transportation and distribution:** We calculate these categories together based on emissions reported by logistics partners, with an adjustment made for data coverage. It is assumed that 92% of the total figure comes from upstream and 8% from downstream transportation and distribution.
- **Category 5 - Waste generated in operations:** We use indirect procurement data and the spend-based method.
- **Category 6 – Business travel:** Emissions from air travel are calculated using an extract from the corporate travel agency, which calculates emissions from flights based on cabin class and distance. Emissions from land-based forms of transport are calculated based on indirect procurement data and the spend-based method.
- **Category 7 – Employee commuting:** We calculate emissions based on the average data method using the number of employees (in full-time equivalents). An average for emissions per employee per year (kg CO₂e/person/year) is calculated based on the UK National Travel Survey 2017 (to provide distance/person/year per mode of transport) and DEFRA carbon factors 2018 (to provide emission factors per km of travel).
- **Categories 8 and 13 – Upstream and downstream leased assets:** We calculate these categories using the real estate data, including real estate type, use, and area (m²) for all leased land and building assets. To avoid double counting with scope 1 and 2 emissions, we only include leased assets that are not reported in our SERAM reporting tool to calculate emissions from our own operations. The assets are then categorized into upstream and downstream based on their ownership and lease status. The calculations are based on the average data method using the square meter (m²) of leased assets to calculate emissions for all assets by building type based on a factor for kgCO₂e/m² derived from the US commercial buildings energy consumption survey 2018 (CBECS 2018) and DEFRA carbon factors 2018.
- **Category 10 – Processing of sold products:** We use direct procurement data to calculate emissions from manufacturing steps done by third-party tollers for either formulation of finished products, or production of intermediates. Where metric units of measure are available, the average data method is used for calculation, otherwise the spend-based method is used.
- **Category 11 – Use of sold products:** This category is not applicable in alignment with our SBTi (Science Based Targets initiative) commitment, reflecting the absence of externally-validated methodologies that consider both benefits and emissions from the use of agricultural inputs.
- **Category 12 – End-of-life treatment of sold products:** We calculate emissions from the disposal and treatment of unused, expired products, which have become waste using the quantity of waste disposed and the average data method. Products that are used correctly are assumed to not require end-of-life treatment.
- **Category 14 – Franchises:** This category is not applicable as Syngenta does not have franchises.
- **Category 15 – Investments:** We calculate emissions associated with investments and activities of Syngenta Group Ventures and the Syngenta Foundation for Sustainable Agriculture (SFSA) using the spend-based method. Syngenta Group Ventures provide an overview of the type, location and value of companies Syngenta has invested in, as well as the proportion controlled by Syngenta. The SFSA provides a description of the activities and number and location of its employees. Furthermore, the activities conducted using Syngenta's bartering and trading platforms are included in this category.

SOP:

→ Reporting on carbon, water and waste footprint in operations

4.2.2 Energy

Energy KPIs**Definition**

We report on our annual energy consumption (TJ) using the following KPIs:

Total energy, defined as the sum of energy consumption of fuel used for combustion, consumption of purchased or acquired energy, and consumption of self-generated non-fuel renewable energy, minus the energy sold or used by third parties. Broken down by type as follows:

Consumption of fuel, defined as the total on-site consumption of energy from standard and non-standard (e.g., waste-derived fuels) non-renewable fuels, as well as biomass used for combustion. Where:

- **Non-renewable standard fuels** include fossil fuels for heaters, driers, abatement systems (e.g., thermal oxidizers using fossil fuels and fuel for site vehicles, forklift trucks, agricultural machinery), as well as fuel used for energy generation (e.g., Combined Heat and Power plant) where the energy is used at the site or sold to third parties. In the case of energy sold, this is deducted from the calculation of Total energy. Fossil fuels used as raw materials for chemical processes are excluded.
Each fuel type is reported individually: coal, oil (gasoline, diesel, heating oil), gas (natural gas, LPG). The energy output of each fuel (in TJ) is calculated by multiplying the quantity by the respective calorific value.
- **Non-renewable non-standard fuels** include waste-derived fuel (excluding biomass and biogenic fuels) used to generate electricity, heat, and steam.
- **Biomass** includes biodiesel (biomass component only, not total biodiesel blend), charcoal, biomass fraction of municipal-type waste, vegetable oils and solids, wood, biogas, and bioethanol.

Consumption of purchased or acquired energy, defined as the sum of electricity, heat, cooling, steam, and other energy purchased or acquired from both renewable and non-renewable sources. Broken down by type as per below, as well as by share of each type coming from renewable sources. Where:

- **Electricity consumption** is calculated as the sum of electricity purchased or acquired from renewable and non-renewable sources. The electricity purchased through a standard electricity purchase contract (electricity derived from a mix of non-renewable and renewable sources) is considered non-renewable (the actual grid non-renewable/renewable mix is reflected in the location emission factor later in the system). Nuclear power is considered non-renewable. Only electricity purchased via a specific renewable electricity supply contract or certificate scheme is considered renewable.
- **Steam supply** is measured by converting its mass to an energy value using a site-specific appropriate energy factor. Where this is not available, a suitable standard factor obtained from an international commercial database is used.
- **Other energy** is calculated as the sum of heat, cooling, and other energy acquired or purchased. It includes heat supplied from a district heating network and community geothermal network; and supplied cooling capacity such as cold water, cold air, and chilled brine. If cooling is measured in non-standard energy units such as refrigeration-tonne hours, it is converted to standard energy units.

Energy purchased from a 'waste to energy' plant is considered non-renewable unless there is formal evidence from the supplier that the waste is of biogenic origin.

Consumption of self-generated non-fuel renewable energy, defined as the sum of total energy generated directly on-site to produce electricity, heating, and lighting. It is broken down by type of

renewable energy (i.e., geothermal, wind, solar, and hydro). It includes generated energy sold to a third party (e.g., back to the grid), which is then deducted from the calculation of Total energy.

Scope

- Global scope: Own operations
- Reporting period: October 1 to September 30
- GGP target: ✖

Methodology

Environmental and sustainability data is collected from our sites using the SERAM reporting tool on an annual basis (See [GHG emissions](#) for more details).

SOP:

➔ HSE Guide SERAM Reporting

4.2.3 Other air emissions

Other air emissions KPIs

Definition

These KPIs measure non-carbon related air pollutant emissions (in tonnes) from our CP and Seeds production sites. Other air emissions are calculated as the sum of the following:

Nitrogen oxide (NO_x) emissions, defined as total emissions of oxides of nitrogen from all direct emission sources on the site. This KPI includes combustion of any fuels plus any process emission.

Sulfur oxide (SO_x) emissions, defined as total emissions of oxides of sulfur from all direct combustion and process sources.

Non-methane Volatile Organic Compound (VOC) emissions, defined as the sum of all site VOC emissions (carbon equivalent) excluding methane. If not directly measured as carbon, speciated VOCs are converted to carbon equivalents before summing. Sites do not report individual sources of total non-methane VOCs below the threshold of 50kg or 100lb per site per year as carbon.

Particulate matter emissions, defined as emissions from both combustion and process sources.

Ammonia (NH₃) emissions, defined as total ammonia emissions from process sources. This KPI excludes ammonia emissions associated with agricultural activities.

Acid chloride (as HCl) emissions, defined as total acid chloride emissions from all sources reported as HCl.

Scope

- Global scope: Own operations
- Reporting period: October 1 to September 30
- GGP target: ✖

Methodology

Environmental and sustainability data is collected from our sites using the SERAM reporting tool on an annual basis (See [GHG emissions](#) for more details).

SOP:

➔ HSE Guide SERAM Reporting

4.2.4 Water and wastewater

Water KPIs**Definition**

These KPIs measure our water usage (in million cubic meters) across our operations and supply chain activities as follows:

Total water usage, defined as the total amount of water withdrawn for use in our own operations and supply chain.

Water usage from own operations, defined as the total water withdrawn from a source outside the site or in the site (e.g., well). Water withdrawn solely for sanitary purposes (cooking, personal hygiene, toilets, etc.) is excluded unless it cannot be separated out from the water used for other purposes.

Sources water is withdrawn from:

- **Surface fresh water** includes water obtained directly by the site from non-saline surface water (lakes, rivers, reservoirs) via a site-owned or operated supply network. It also includes harvested rainwater and water condensed from the atmosphere. Until 2021, recovery rainwater was reported separately.
- **Groundwater** includes water directly withdrawn by a site from an abstraction borehole, well or similar, either on-site or off-site.
- **Water obtained from a third party** includes all water provided by a municipality or other external private provider or third party, including desalinated seawater from a municipal desalination plant or similar. It may be supplied by pipe, tankers or other methods.

Water usage from supply chain activities, defined as the total amount of water used for various purposes, such as agriculture and industrial processes across our supply chain. This includes, for example, cooling water used in the production of raw materials purchased by Syngenta, water used as a raw material in purchased raw materials or by third-party tollers, and water consumed on sites leased by Syngenta, but which do not report in our internal SERAM reporting tool.

Scope

- Global scope: Supply chain and own operations
- Reporting period: October 1 to September 30
- GGP target: ✖

Methodology

Data to calculate the water usage from our own operations is collected from our sites using the SERAM reporting tool on an annual basis (See [GHG emissions](#) for more details).

The water usage from supply chain activities is calculated using a hybrid approach of spend-based and average data methods used to calculate scope 3 emissions (See [GHG emissions](#) for more details).

SOP:

→ HSE Guide SERAM Reporting

Wastewater KPIs

Definition

These KPIs measure our wastewater (in million cubic meters) discharged as follows:

Industrial wastewater discharge is calculated as the sum of wastewater discharged to all routes, i.e., to fresh surface water, groundwater, brackish or saltwater, and third-party treatment facilities. It does not include non-contact heating or cooling water returned directly to the source.

Direct discharge of uncontaminated cooling water, defined as the volume of uncontaminated heating and/or cooling water returned directly to the source. This water has not been in contact with chemicals or processes that could lead to it being contaminated and is thus returned to the environment without treatment. Cooling water returned directly to the source must meet temperature ranges set in the local permit or Syngenta internal standards.

Total on-site treated wastewater, defined as the total volume of treated wastewater discharged from our sites, broken down by treatment method as follows:

- **Primary treatment** involves the physical removal of suspended solids and floating materials, typically by coagulation, flocculation, and sedimentation.
- **Secondary treatment** involves the degradation of organic matter and reduction of solids through biological treatment.
- **Tertiary treatment** involves additional treatment to remove suspended, colloidal, and dissolved constituents (nutrients, heavy metals, inorganic and other contaminants) remaining after secondary treatment through processes that include granular media filtration, biological nitrification-denitrification, biological phosphorus removal, and chlorination.

If a site follows a series of treatment steps, or if on-site treatment is done before off-site treatment, then the final on-site treatment stage for each wastewater stream is recorded to avoid overlap.

Discharge to the environment without treatment, defined as the volume of wastewater discharged directly from Syngenta sites to the environment without treatment. It can include cooling water or wastewater discharged via a soakaway or river. This wastewater must meet discharge parameters set in the local permit or Syngenta internal standards.

Discharge to a third party without treatment, defined as wastewater sent to public or other third-party owned sewer/drainage network or treatment system, or to a septic tank where the water is pumped out and taken away by a third party for treatment. It also includes aqueous-based liquid wastes that are sent to some form of standard effluent treatment plant (biological, physio-chemical). Aqueous liquid waste that is sent for incineration is captured under Waste.

Other routes or treatment types include wastewater discharges after sole or final treatment in an engineered wetland treatment system. It also includes wastewater treated in an on-site Heliosec or other evaporative treatment system where a liquid condensate is discharged to the environment. If the condensate is sent for incineration, it is recorded under Waste.

Wastewater that is entirely domestic-type sanitary wastewater is currently out of scope, unless it is not measured separately and is included with other wastewater streams. Rainwater that passes directly through the site drainage network and is not captured or used for any purpose is also currently out of scope, unless it cannot be separated out.

Scope

- Global scope: Supply chain and own operations
- Reporting period: October 1 to September 30
- GGP target: ✖

Methodology

Environmental and sustainability data is collected from our sites using the SERAM reporting tool on an annual basis (See [GHG emissions](#) for more details).

SOP:

→ HSE Guide SERAM Reporting

4.2.5 Waste

Waste KPIs**Definition**

These KPIs measure our hazardous and non-hazardous waste generation (in thousand tonnes) in our operations and supply chain as follows:

Total waste, defined as the sum of hazardous and non-hazardous waste from our operations, and waste from our supply chain activities. The distinction between hazardous and non-hazardous waste in SERAM is based on local legislation.

Hazardous and non-hazardous waste from own operations, defined as the sum of hazardous and non-hazardous waste sent to:

- **Recycled and re-used waste**, defined as the sum of waste volume recycled and prepared for re-use. Recycling includes downcycling, upcycling, and anaerobic decomposition of treated hazardous and non-hazardous waste. Preparation for re-use is defined as checking, cleaning or conducting minor repairs of items or products that have become waste to allow them to be used for the same purpose again. Hazardous waste is deemed to be very small in this category.
- **Incinerated waste**, defined as the sum of waste volume incinerated (on-site/off-site) with and without energy recovery. Also known as 'waste to energy', incineration with energy recovery uses the generated heat to produce steam, hot water or electricity.
- **Landfill**, defined as the sum of waste volume sent to on-site and off-site landfills. It includes land treatment, surface impoundment, and permanent underground storage.
- **Other recovery** includes wastes sent for blending into cement kiln fuel or other secondary/replacement fuel for plants whose primary purpose is the manufacture of a product, not the destruction of waste.

Waste from supply chain activities is defined as the total amount of waste generated from various sources, such as agricultural and industrial processes across our supply chain. This includes, for example, waste generated by the production of raw materials purchased by Syngenta, as part of activities of external tollers used by Syngenta for some of its production processes, and waste generated by the production of equipment and tools used by Syngenta.

Scope

- Global scope: Supply chain and own operations
- Reporting period: October 1 to September 30
- GGP target: ✖

Methodology

Environmental and sustainability data is collected from our sites using the SERAM reporting tool on an annual basis (See [GHG emissions](#) for more details).

The waste from our supply chain is calculated using a hybrid approach of spend-based and average data methods used to calculate scope 3 emissions (See [GHG emissions](#) for more details).

SOP:

➔ HSE Guide SERAM Reporting

4.2.6 Intensity and change since 2016 baseline

Intensity-based environmental KPIs

Definitions

We report our environmental performance in absolute terms (as described in the previous sections) and in intensity-based terms. The intensity value is calculated based on sales and, for GHG emissions, also based on gross profit (i.e., value added). We use sales and gross profit from the period January to December to align with the company's audited full year results.

Scope

- Global scope: Supply chain, own operations, and downstream activities
- Reporting period: October 1 to September 30 (environmental data) and January 1 to December 31 (sales and gross profit)
- GGP target: ✓

Methodology

At the end of the financial year, consolidated financial results are prepared and audited. Sales and gross profit are derived from the consolidated income statement and used to calculate environmental intensity values.

Change since 2016 baseline

Definitions

We report the percentage change since the 2016 baseline for the following KPIs:

- Absolute CO₂e emissions from scope 1, 2 and 3
- Intensity CO₂e emissions from scope 1, 2 and 3 (based on value added) in alignment with our Good Growth Plan and SBTi (Science Based Target initiative) commitments
- Water usage intensity (based on sales) in alignment with our water reduction target
- Waste intensity (based on sales) in alignment with our waste reduction target

A positive value in the percentage change indicates an increase of our environmental footprint, while a negative value indicates a reduction.

Scope

- Global scope: Supply chain, own operations, and downstream activities
- Reporting period: October 1 to September 30 (environmental data) and January 1 to December 31 (sales and gross profit)
- GGP target: ✓

Methodology

The percentage change since the 2016 baseline is automatically calculated in the annual report data collection tool.

4.2.7 Working with suppliers

Suppliers included in sustainability and fair labor programs (GGP)
<p>Definition This KPI measures the percentage of suppliers included in sustainability and fair labor programs from the seed, crop protection, and flower supply chains as described below.</p> <p>Scope</p> <ul style="list-style-type: none"> • Global scope: Supply chain • Reporting period: October 1 to September 30 • GGP target: ✓ <p>Methodology This KPI is calculated as a percentage of suppliers covered by the three programs described below, divided by the total number of suppliers as of September 30. This calculation is automatically done in the annual report data collection tool.</p>

Syngenta Fair Labor Program (seed supply chain) KPIs
<p>Definition These KPIs measure the coverage of our Syngenta Fair Labor Program in our seed supply chain. In particular, the percentage of:</p> <ul style="list-style-type: none"> • Syngenta seed producing countries with a Syngenta Fair Labor Program in place • Seed supply farms included in the Syngenta Fair Labor Program • Farms monitored <p>Where:</p> <ul style="list-style-type: none"> • Syngenta Fair Labor Program (FLP) is the program used to monitor adherence of our seed supply farm network to labor standards, including health and safety standards, no forced and child labor, fair compensation and working hours, freedom of association and collective bargaining as well as no discrimination, harassment, and abuse. • Syngenta seed producing countries are countries in which Syngenta Seeds has a seed supply farm network in place. • Seed supply farms are farms which multiply seeds for Syngenta under Syngenta procurement terms. Accounting for a farm is determined based on contract, crop, field and year. • Farms monitored represent the seed supply farms that have undergone an internal monitoring visit. <p>Scope</p> <ul style="list-style-type: none"> • Global scope: Supply chain • Reporting period: October 1 to September 30 • GGP target: ✗ <p>Methodology A country is considered to have a Syngenta Fair Labor Program in place when the program has been implemented and sowing/planting has taken place in the calendar year prior to September 30 of the reporting year.</p> <p>Similarly, the number of seed suppliers in a country are those for the calendar year in which the sowing/planting period started prior to September 30 of the reporting year. For example, if</p>

sowing/planting started in any month of calendar year X, the information will be included in the ESG Report of year X+1. The reason is that it takes approximately nine months to complete a growing season and to collect the required information.

All seed supply farms in a country with a Syngenta Fair Labor Program in place are considered to be covered by the program, independently of whether the farm underwent an internal monitoring visit. Farms to be monitored are selected through a stratified random sampling process conducted by the local implementation FLP lead.

Field production crop teams provide country-level farm lists and FLP leads provide country-level monitoring information. Information is collected and consolidated at global level.

SOP:

→ Global reporting on Syngenta Fair Labor Program

Supplier Sustainability Program (crop protection supply chain) KPIs

Definition

These KPIs measure the coverage of our Supplier Sustainability Program in our crop protection supply chain. In particular, the percentage of the following types of suppliers in the program:

- Chemical suppliers, categorized as posing a high or medium sustainability risk
- Crop Protection formulation, fill and pack (CP FFP) tollers, categorized as posing a high or medium sustainability risk
- Packaging manufacturers, all independently of their sustainability risks

Where:

- **Supplier Sustainability Program:** A program used to evaluate suppliers' sustainability performance and consisting of three levels of evaluation, based on the risks identified for each third-party production site through our sustainable sourcing process.
- **Syngenta HSE audit:** An internal audit evaluating a supplier's Health, Safety, and Environmental (HSE) standards and consisting of an in-depth assessment by a Syngenta auditor using a predetermined questionnaire/protocol.
- **Together for Sustainability (TfS) audit:** A third-party audit evaluating a supplier's HSE, social, and ethical standards and consisting of a broad assessment by a TfS-approved auditor.
- **TfS assessment:** A sustainability assessment evaluating a supplier's sustainability performance using a self-assessment questionnaire (EcoVadis).

The Supplier Sustainability Program consists of three levels of evaluation, with:

- High priority suppliers and tollers undergoing a Syngenta HSE audit and TfS assessment
- Medium priority suppliers and tollers undergoing a TfS audit and TfS assessment
- Low priority suppliers and tollers only undergoing a TfS assessment

Chemical suppliers having undergone an audit or assessment within the last three years are considered to be part of the program. Low priority suppliers, those with an annual spend of less than USD 100,000 per year, and other types of suppliers or tollers are considered out of scope.

Scope

- Global scope: Supply chain
- Reporting period: January 1 to December 31
- GGP target: ✕

Methodology

The list of suppliers and tollers with a spend above USD 100,000 is maintained on the Sustainable Sourcing Platform and updated by Regional Operational Sustainability Teams (ROSTs) quarterly. Suppliers and tollers are categorized according to their priority rating: high, medium, and low.

ROSTs plan and execute audits according to supplier priority ratings and the date of the last supplier audit or assessment. Audit reports are stored on the Sustainable Sourcing Platform, while the results of TfS assessments are available on the EcoVadis platform. The list of suppliers and tollers is updated quarterly with the results of new audits or assessments.

The list of suppliers and tollers forms the basis for the calculation of the coverage of our Supplier Sustainability Program. Chemical suppliers and CP FPP tollers rated with high and medium sustainability risk, as well as all packaging manufacturers that underwent a Syngenta HSE audit, TfS audit or TfS assessment within the last 3 years, are considered to be part of the Supplier Sustainability Program. The percentage of coverage is calculated based on suppliers, tollers and manufacturers in scope as of September 30, i.e., those rated high and medium sustainability risk in the case of chemical suppliers and CP FPP tollers, and all in the case of packaging manufacturers.

If a supplier or toller has three sites, each site will be evaluated separately to determine whether it is high, medium, or low priority. If two of those sites are considered high or medium priority, and one is considered low priority, then only two sites will be considered in the total number of high and medium priority supplier sites.

If a supplier, toller or manufacturer has two sites, and only one of those sites has undergone an audit or assessment in the last 3 years, then only one site is considered to be part of the Supplier Sustainability Program.

A supplier, toller or manufacturer site that has completed all three (Syngenta HSE audit, TfS audit and TfS assessment) will be counted only once.

SOP:

→ Global reporting of Chemical Suppliers, CP FPP Tollers and Packaging Suppliers in Supplier Sustainability Program

GlobalG.A.P. and Global G.R.A.S.P. (flowers supply chain) KPIs**Definition**

These KPIs measure the percentage of Syngenta and third-party commercial flower farms that have a valid GlobalG.A.P. certificate, as well as the percentage of Syngenta commercial flower farms that carried out a G.R.A.S.P. social practice assessment.

[GlobalG.A.P.](#) is the internationally recognized standard for good agricultural practices.

The **GLOBALG.A.P. Risk Assessment on Social Practice (G.R.A.S.P.)** is a voluntary farm-level social/labor management tool for global supply chains that is used in combination with GlobalG.A.P. certification to address social practices on the farm, specifically aspects of worker's health, safety, and welfare.

The GlobalG.A.P. certification can be obtained in any country in which there is an accredited GlobalG.A.P. certification body. However, for G.R.A.S.P, additional national interpretation guidelines are required, which are not currently available in all countries.

Scope

- Global scope: Supply chain
- Reporting period: October 1 to September 30
- GGP target: ✖

Methodology

These KPIs are calculated as a percentage of the total number of commercial flower farms that are in scope for certification and/or assessment as of September 30. The farms in scope are determined as follows:

- **All Syngenta-owned farms** are in scope where GlobalG.A.P. certification and/or G.R.A.S.P. assessments are possible.
- **Third-party farms** are only in scope for GlobalG.A.P. certification where it is possible and when they repeatedly supply Syngenta and meet the following criteria:
 - Commercial flower tissue culture, seed, cutting, rooting and young plant production for Syngenta up to and including young plant production.
 - A nominative value of business of more than USD 100,000 or a high/medium certification relevance based on downstream use.
 - Supplier relationship longer than two seasons.

The list of commercial flower farms in scope for GlobalG.A.P. certification and/or G.R.A.S.P. assessment is annually reviewed by the Head Quality Management and Regional Operations managers. It is communicated to local farm managers and third-party supplier managers for audit planning and completing the certification process.

Audit results and certificates are centrally tracked in a global master sheet. At the end of each reporting year, the numbers of commercial flower farms in scope and those with GlobalG.A.P. certification and/or G.R.A.S.P. assessment are determined.

SOP:
 → Global reporting of L&G Flowers

4.3 People

4.3.1 Employment and engagement, and diversity and inclusion

Employment, diversity and inclusion KPIs

Definitions

We measure our employment and engagement, and diversity and inclusion (D&I) performance using the following KPIs:

Number of employees, defined as the number of active full-time equivalents (FTE). It is broken down by region, gender, and type of employment as follows:

- **Permanent employees** have a regular or regular fixed-term contract (current exception: regular-fixed term employees in France and Canada are reported as temporary).
- **Temporary employees** have a temporary contract or are part of an apprenticeship program.

Number of part-time employees, defined as the number of active permanent employees (headcount), who work part-time (>0% and <100%). It is broken down by region and gender.

Turnover rate, defined as the percentage of permanent employees (headcount), who left the company voluntarily, for retirement or due to restructuring during the reporting year. It is calculated as a fraction of the total headcount as of September 30. It is broken down by gender calculated as a fraction of the total female, male, and other or undeclared gender headcount accordingly.

Attrition rate, defined as the percentage of permanent employees (headcount), who voluntarily left the company during the reporting year. It is calculated as a fraction of the total headcount as of September 30. It is broken down by gender calculated as a fraction of the total female, male, and other or undeclared gender headcount accordingly.

Number of senior managers, defined as the number of active permanent employees (headcount) in positions at the top four levels of accountability in the organization (levels 7-10). It is broken down by regions.

Percentage of female employees, defined as the share of active female permanent employees (headcount) from all levels of the organization, in management roles (level 6) and senior management roles (levels 7-10).

Number of nationalities, defined as the number of nationalities represented among active permanent employees (headcount) at all levels of the organization, in management (level 6) and senior management roles (levels 7-10).

Scope

- Global scope: Own operations.
- Reporting period: October 1 to September 30 (figures are as of September 30)
- GGP target: ✖

Depending on the contract agreement, new acquisitions have a grace period to integrate the data into the system.

Methodology

The information about new hires, leavers, and changes in employee status/role is captured by line managers and country Human Resources (HR) teams on an ongoing basis in Workday, the HR database system. At the end of the reporting period, the Group People Insights and Analytics team extracts the information from Workday and calculates the annual KPIs.

SOP:

- ➔ Reporting of people-related performance indicators

4.3.2 Employee development

Corporate learning and development investment KPIs

Definition

These KPIs measure the total amount of investment (in USD million) in corporate learning and employee development initiatives calculated as the sum of:

- **Leadership and talent development investment**, which includes fees for the design and delivery of development pathways and programs, coaching and mentoring vendors, development platforms, and some related projects and change management resources.
- **Learning enabling technologies investment**, which includes annual fees for user licenses for learning resources available to employees. Learning enabling technologies include learning management systems, content aggregators, and other tools used to support learning and development initiatives.

Scope

- Global scope: Own operations
- Reporting period: October 1 to September 30
- GGP target: ✕

Methodology

The investment in leadership and talent development is taken from the annual budget. The investment in learning enabling technologies is determined based on the annual contracts and license fees paid to technology providers, which are tracked in our internal financial system.

The Group People and Organizational Development team extracts and maintains monthly data. At the end of the reporting period, the total investment amount in leadership and talent development, and learning enabling technologies is calculated.

SOP:

- ➔ Reporting of leadership and talent development

4.3.3 Health and safety

Health and safety KPIs**Definitions**

We report on our health and safety performance through injury and occupational illness-related KPIs as well as through critical event KPIs.

We align our KPI definitions with those of the US Occupational Safety and Health Administration (OSHA), the Center of Chemical Process Safety of the American Institute of Chemical Engineers (CCPS), the US American National Standards Institute (ANSI), the American Petroleum Institute (API), and the International Council of Chemical Associations (ICCA).

Definitions of key terms include:

- **Incident** is an unplanned event that results in or has the potential to result in injury, illness, damage to property, or loss of production.
- **Injury** is caused by a single instantaneous event where a person is hurt, including self-applied first aid.
- **High-consequence injury**, internally also known as SIF (Serious Injury or Fatality), is defined as any fatality, life-changing or life-threatening accident, or any incident, near-miss or safety observation with the potential to result in a fatality, life-changing or life-threatening accident.
- **Occupational illness** is any illness with medical diagnosis, which is caused or mainly caused by exposure to work factors.
- **First aid incidents** are incidents where first aid remedies are used to treat an injury, for instance when the injured party applies a wound dressing or non-prescription medicine.
- **Fatalities** are fatal incidents from recordable injury or occupational illness incidents.
- **Recordable** means an injury or illness that meets certain criteria and must be recorded under a national occupational illness reporting scheme (i.e., US OSHA 300 record keeping rule in the US, or RIDDOR – Reporting of Injuries, Diseases and Dangerous Occurrences Regulation – in the UK) to track and analyze workplace injuries and illness.
- **Rates** are calculated by multiplying the total number of recordable incidents by 200,000 and dividing by the number of hours worked within the reporting year. They are broken down by region and contractual relationship (own employees and directly supervised contractors).

- **Actual** describes a real-life condition or factual data and observations, while **Potential** describes a hypothetical scenario or projection, particularly in the context of chemical safety, to identify possible hazards and risk that may or may not occur in the future.
- **Severity level** is an ICCA classification of health, safety and environmental hazards according to their degree of severity, ranging from low to high severity.
- **Own employees** are individuals who are paid by Syngenta, including permanent and temporary employees.
- **Directly supervised contractors** are individuals who are paid by a third party but are supervised by Syngenta while conducting work for Syngenta.

We report on the following injury and occupational illness-related KPIs:

- **Recordable injuries and illness rate (IIR) per 200,000 hours (GGP)**
- **Injury-related KPIs:**
 - Recordable injury rate per 200,000 hours
 - Recordable high-consequence injury rate per 200,000 hours
 - Cases of recordable injuries, by type, and high-consequence injuries
- **Occupational illness-related KPIs:**
 - Recordable occupational illness rate per 200,000 hours
 - Cases of recordable occupational illness
- **First aid cases**
- **Fatality-related KPIs:**
 - Recordable fatality rate per 200,000 hours due to injuries and occupational illness
 - Cases of recordable fatalities due to injuries and to occupational illness

We break down these KPIs by region or contractual relationship (own employees and direct supervised contractors) where appropriate. We follow recordability definitions from the US OSHA for injuries and occupational illness, and those from the US OSHA and CCPS for high-consequence injuries.

We also report on the following critical event KPIs:

- **Motor vehicular incidents** are defined as the number of incidents involving a Syngenta vehicle or a Syngenta driver where the journey was for Syngenta business. We also report **motor vehicular incident rates** per million kilometers. We follow ANSI D16-2017 standards.
- **Motor vehicle injuries** are defined as the number of motor vehicle injuries where the injury refers to any injuries, including first aid for all individuals (including third parties) involved in the incident and where the injury directly resulted from a Syngenta driver activity or was caused by impact from a Syngenta vehicle. We also report **motor vehicle injury rates** per million kilometers. We follow ANSI D16-2017 standards.
- **Process safety events** are defined as the number of medium and high actual severity events caused by a loss of primary containment of a chemical or a loss of control of a chemical process. We also report **process safety events rates** per 200,000 hours. We follow the ANSI/API Recommended Practice (RP) 754 standard and ICCA Responsible Care® definition.
- **Process Safety Incident Severity Rate (PSISR)** measures the severity of process safety incidents and is defined as the number of incidents with a severity rating of one or higher per 200,000 hours worked. The severity rating of each process safety incident is based on a scale that reflects the potential impact of the incident on worker safety, the environment, or property damage. We follow the ANSI/API RP 754 standard and ICCA Responsible Care® definition.
- **Distribution safety incidents** are defined as the number of incidents with a health, safety, environmental or security impact that occurs during the transport or storage of material, which is controlled or directly contracted by Syngenta.
- **Significant unplanned or uncontrolled releases to the environment**, where:
 - Significant unplanned releases are those classified as high per the ICCA guidelines and ANSI/API RP 754 standard for reporting Process Safety Incidents and where the loss

<p>leaves secondary containment or is discharged into secondary containment with uncertain integrity.</p> <ul style="list-style-type: none"> ○ Significant uncontrolled releases are losses to the environment that exceed the normal or intended rate of release at levels aligned with the ICCA guidelines for reporting Process Safety Incidents. <p>Scope</p> <ul style="list-style-type: none"> • Global scope: Own operations • Reporting period: October 1 to September 30 • GGP target: ✓ <p>Methodology</p> <p>The health and safety data related to Syngenta’s own employees and contractors directly supervised by Syngenta, as well as critical event performance, are reported monthly through Syngenta’s HSE reporting system.</p> <p>At the end of the reporting period, the HSE Performance Management team derives the health and safety KPIs from the HSE reporting system.</p> <p>SOP: ➔ HSE Reporting and Learning from Experience Guide</p>
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4.4 Business integrity

4.4.1 Corporate conduct

Employees submitting Code of Conduct commitment
<p>Definition</p> <p>These KPIs measure the number and the rate of employees, who confirm their commitment to uphold our Code of Conduct (CoC) and key compliance policies. The completion rate is calculated based on employees in scope.</p> <p>Employees in scope are employees with dedicated access to a Syngenta computer and email address. These employees are required to confirm their commitment to the Syngenta Group Code of Conduct.</p> <p>Scope</p> <ul style="list-style-type: none"> • Global scope: Own operations • Reporting period: January 1 to December 31 • GGP target: ✖ <p>Methodology</p> <p>Every year, employees in scope receive an invitation link by email to confirm their commitment to the Code of Conduct. Once a commitment is submitted, it is registered in the Group Compliance team’s database.</p> <p>The Group Compliance team extracts the list of employees that submitted their annual CoC commitment and compares it against the list of employees in scope (who received an invitation and for whom completion of the Code of Conduct commitment is mandatory) to derive the number of employees and calculate the completion rate.</p> <p>SOP: ➔ Reporting of Code of Conduct completion rate</p>

New hires completing compliance onboarding training

Definition

These KPIs measure the number and the rate of new hires completing the following four mandatory compliance onboarding trainings:

- Syngenta Group Code of Conduct
- Conflict of interest
- Anti-bribery and corruption
- Competition law

New hires are defined as permanent employees, who joined Syngenta during the reporting period and have dedicated access to a Syngenta computer. New hires are required to take the compliance onboarding training within 30 days. We report on the number of new hires in the reporting period, who have completed the training.

Scope

- Global scope: Own operations
- Reporting period: January 1 to December 31
- GGP target: ✕

Methodology

These KPIs are tracked through the global Syngenta learning management system Learning Hub. At the end of the reporting period, the Syngenta learning management team provides the list of all new hires (as defined above) assigned to complete the training to the Group Compliance team. To calculate the completion rate, the team then filters the list to those who completed the training.

SOP:

- ➔ Reporting of Compliance training completion

Compliance cases reported and Substantiated cases of bribery and corruption

Definition

These KPIs measure the number of compliance cases, as well as the number of substantiated bribery and corruption cases, that are brought to the attention of the Group Compliance team through the following channels:

- Compliance helpline (web, phone)
- Manager report form
- Compliance Officer, Legal or HR

All concerns from employees, suppliers, contractors, partners, and other stakeholders about possible Code of Conduct breaches are in scope while questions received via the helpline are excluded as they are not considered compliance cases.

A bribery and corruption case is defined as the act of offering, promising or giving, as well as demanding or accepting, any improper payment, inducement or item of value (a bribe) to or from a public official, business partner, a family member of a public official or of a business partner to improperly obtain, retain or direct business or to secure any other improper advantage in the conduct of business.

Scope

- Global scope: Own operations

<ul style="list-style-type: none"> • Reporting period: January 1 to December 31 • GGP target: ✖ <p>Methodology Compliance cases are globally tracked in a third-party case management tool by the Group Compliance team. At the end of the reporting period, the team extracts and validates the list of cases received during the reporting period, including substantiated bribery and corruption cases.</p> <p>SOP: ➔ Number of compliance cases reported</p>

4.4.2 Security management

<p>Sites included in Syngenta Security 360° Program</p> <p>Definition This KPI measures the number of sites, which have undergone at least one security risk assessment as part of our Security 360° Program. Where:</p> <ul style="list-style-type: none"> • Sites are defined as any extent of land, including those of key business partners, where Syngenta Group activities are performed. Sites are selected based on their location in high-risk areas, local risks or business needs. • Security risk assessments consist of nine asset, people, and information risks, considering 24 standard risk-mitigating security controls. The site security assessment schedule is defined annually at global level. <p>Scope</p> <ul style="list-style-type: none"> • Global scope: Supply chain, own operations, and downstream activities • Reporting period: October 1 to September 30 • GGP target: ✖ <p>Methodology All reviews done as part of our Security 360° Program are stored in a dedicated corporate security database, which features the report information, including the date of the assessment and the corresponding site.</p> <p>The number of sites in the program is a cumulative figure calculated by extracting from the system the count of unique site names as of September 30.</p> <p>SOP: ➔ Global reporting of security performance indicators</p>

<p>Product security cases and Suspect counterfeit products seized by authorities</p> <p>Definition These KPIs measure the number of anti-illicit crop protection and seeds trade cases under investigation broken down by the source of identification (online or offline), as well as the tonnes (metric tons) of suspected counterfeit crop protection and seed products seized by authorities. Illicit products are defined as any of the following:</p> <ul style="list-style-type: none"> • Non-Syngenta product, which imitates or resembles a Syngenta product with the intent to defraud.
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- Product which has been placed on the market in breach of import and/or registration regulations, and which negatively affects the interests of Syngenta (this includes brown bagging, theft of parental lines, toller/factory overrun).
- Product in violation of and/or unauthorized use of Syngenta's IP rights (this includes patent infringements).

Anti-illicit trade cases could be classified as offline or online. Offline cases are detected by employees, authorities, or any other source, and are reported to the Corporate Security team. Online cases are detected through online sources (e.g., e-commerce websites, social media).

Scope

- Global scope: Supply chain, own operations, and downstream activities
- Reporting period: October 1 to September 30
- GGP target: ✖

Methodology

All online and offline anti-illicit trade cases as well as the volume of suspect crop protection and seeds products seized by authorities are tracked in Syngenta's case management tool. At the end of the reporting period, the annual numbers are extracted from the system.

SOP:

- ➔ Global reporting of security performance indicators

New hires completing Corporate Security Awareness training

Definition

This KPI measures the number of new hires completing the Corporate Security Awareness online training. The training consists of modules on people, product, and site security topics and is conducted through the global Syngenta learning management system Learning Hub.

New hires are defined as permanent and temporary employees, and directly supervised contractors, who have dedicated access to a Syngenta computer. We report on the number of hires who have completed the training within the reporting period.

Scope

- Global scope: Own operations
- Reporting period: October 1 to September 30
- GGP target: ✖

Methodology

Each training completed is recorded in a training tracking tool along with feedback forms from participants. A monthly course metric report is automatically issued by the training tracking tool, which is used to aggregate the data for the whole reporting period.

SOP:

- ➔ Global reporting of security performance indicators

4.4.3 Animal welfare

Management system audits performed in contract laboratories and non-compliances found**Definition**

These KPIs measure the number of management system audits performed in contract laboratories conducting animal studies on behalf of Syngenta, and the number of instances of management system non-compliances found.

The facilities involved in animal work placement are required to have management systems that are consistent with Syngenta policy and standards as well as with national legislation. The contracted facilities are required to demonstrate they have policies and procedures in place for training and assessing the competence of staff responsible for the care and maintenance of animals, and for experimental procedures conducted on animals.

Scope

- Global: Own operations
- Reporting period: October 1 to September 30
- GGP target: ✖

Methodology

The Syngenta Animal Ethical Review Committee (SAERC), which oversees compliance with the Syngenta Animal Welfare Policy, assesses and approves facilities for use by Syngenta. All testing facilities are subject to periodic review to monitor compliance. Audits are performed based on an agreed audit plan and last up to three days. The figure reported represents the number of audits completed and the associated non-compliances found within the reporting period.

Audits are performed mainly by Syngenta employees, with some conducted by external contractors. The results of audit reviews and recommendations are documented and reported to the SAERC for approval. Audit reports and a summary of recommendations/findings are maintained by the SAERC Secretary.

SOP:

- ➔ Syngenta animal welfare guidance

4.4.4 Biotechnology and regulatory compliance

Employees completing field trial regulatory and stewarded compliance training**Definition**

This KPI measures the number of employees who have received training on field trial regulatory and stewarded compliance. Where:

- **A regulatory compliance program** involves trials requiring a permit from country-specific regulatory authorities requesting that specific compliance requirements, e.g., isolation distances, be implemented during field trials.
- **A stewarded compliance program** involves trials not requiring a permit, which are managed under risk-based controls according to country-specific compliance programs.

Scope

- Global scope: Own operations
- Reporting period: January 1 to December 31
- GGP target: ✖

Methodology
 Training participation is tracked through training attendance lists, which are maintained by Regulatory Compliance Regional Leads. These lists are reported quarterly to the technical team responsible for compliance and stewardship for consolidation and annual reporting.

If an individual receives the same training more than once within a specific quarter, this individual is only counted once. If the same training is received in different quarters, the training is recorded once for each quarter in which the training was received.

SOP:
 → Global compliance statistics guidance

Field trial locations planted under country regulatory and stewarded compliance programs

Definition
 This KPI measures the number of specific field trial locations planted under country regulatory and stewarded compliance programs, which include trials requiring a permit and trials not requiring a permit but managed in accordance with country-specific compliance programs (i.e., stewarded trials). Each permitted or documented trial site is considered a distinct location.

Scope

- Global scope: Own operations
- Reporting period: January 1 to December 31
- GGP target: ✖

Methodology
 Field trial locations are captured in the quarter where the planting has occurred. A field trial location with multiple sub-trials planted in a quarter is counted once. If additional sub-trials are planted in other quarters, the field trial location is counted again in the quarter during which the planting occurred.

The quarterly figures are reported by Regulatory Compliance Regional Leads to the technical team responsible for compliance and stewardship for consolidation and annual reporting.

SOP:
 → Global compliance statistics guidance

4.4.5 Economic value shared

Economic value shared

Definition
 This KPI measures the economic value we share with society. We calculate it as the sum in USD millions of the following categories:

- **Payment to suppliers:** Cost of Goods Sold (COGS) and function costs (including restructuring), excluding employee costs, and adjusted for non-cash items such as depreciation and amortization, and movement in inventory.
- **Employee wages and benefits:** Salaries, bonuses, social security costs, pensions, share-based compensation, and other benefit costs.

<ul style="list-style-type: none"> • Payments to governments (taxes): Income and other taxes paid, excluding VAT (included in payments to suppliers) and employment-related taxes (included in employee wages and benefits). • Payments to providers of capital: Payment of dividends and interest on debt. • Capital expenditure: Cash investment in tangible, intangible and financial assets (excludes business acquisitions and all disposals). • Corporate community investment: See Community engagement section for more information. <p>Scope</p> <ul style="list-style-type: none"> • Global scope: Supply chain, own operations, and downstream activities • Reporting period: January 1 to December 31 • GGP target: ✖ <p>Methodology</p> <p>At the end of the financial year, consolidated financial results are prepared and audited. The economic value shared KPIs (except Corporate community investment) are derived from the consolidated income statement and consolidated cash flow statement according to the definitions above.</p>
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4.4.6 Community engagement

<p>Corporate community investment</p>
<p>Definition</p> <p>This KPI measures the amount of corporate community investment (in USD millions) as per Syngenta’s Charitable Contribution Policy and Humanitarian Donation Policy. This investment is comprised of:</p> <ul style="list-style-type: none"> • Philanthropic donations generally take the form of single transactions to charities, not-for-profit organizations or local groups. • Non-commercial sponsorships generally involve a longer-term financial relationship, with benefits to both partners. • Other community engagement activities. <p>Investments are reported in USD and can be cash contributions, in-kind contributions and/or staff time spent. Included is also our monetary contribution to the Syngenta Foundation for Sustainable Agriculture.</p> <p>Philanthropic donations could also be made for humanitarian relief. In this case, if an employee matching program is conducted, only the part contributed by the company is considered.</p> <p>Scope</p> <ul style="list-style-type: none"> • Global scope: Supply chain, own operations, and downstream activities • Reporting period: January 1 to December 31 • GGP target: ✖ <p>Methodology</p> <p>Community investment information, including project, location, date and amount in USD, is collected from local country contacts across the organization every quarter. At the end of the reporting period, quarterly information is consolidated to obtain the annual investment.</p> <p>SOP: → Global reporting on corporate community investment</p>

Syngenta AG

P.O. Box
CH-4002 Basel
Switzerland

Investor Relations
E global.investor_relations@syngenta.com

Media Relations
E media.relations@syngenta.com

Sustainability
E sustainability.syngenta@syngenta.com

Syngenta switchboard
T +41 61 323 1111
F +41 61 323 2424

www.syngenta.com



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