The Good Growth Plan Progress Data - Soil 2016

Rescue more farmland

1. Summary

Syngenta launched the Good Growth Plan to address the huge challenges of feeding a growing world population sustainably. One of the key commitments of the Plan is to help rescue more farmland. Our commitment is to promote and support in-field adoption of certain soil management and use practices that will sustain soil productivity and support crop productivity for a long time.

Sustainable farming needs resilient, healthy soils to secure our food supply for the long term and help increase yields right now. Poor management practices degrade millions of hectares.

We're working with partners to improve these practices. To achieve this commitment, we're focusing on conservation agriculture. This lets farmers improve cropping while protecting soil and water resources on which production relies.

We're advising farmers and giving them the tools they need to implement these practices globally, in partnership with external stakeholders such as academics, policy makers and soil experts. Together, we're assessing the best ways to make soil more productive, selecting the most promising projects, and tailoring them to local conditions and then getting them under way with the help of local farmers.

The Soil dataset shows aggregated hectares of farmland reported between 2013 and 2016 that benefit from soil conservation practices established in collaboration with Syngenta. The dataset also includes a description of the project objectives. The number of hectares of benefited farmland are tracked locally through in-field assessments, documented, and reported by project managers.

2. Metadata

Description of the dataset	The dataset includes figures of farmland hectares impacted through soil conservation agricultural practices established in collaboration with Syngenta between 2013 and 2016.
Date of first publication	April 23, 2015
Date of last update	March 17, 2017
Date of next update	Spring 2018
Frequency of updates	Annually
Reporting period	October 1, 2013 – September 30, 2016

License for re-using the data	The contents of this dataset and all supporting documentation are licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.
Text to use when citing the data	The Good Growth Plan Progress Data - Soil 2016
URL to use when citing the data	www.goodgrowthplan.com
Geographic coverage	Argentina; Austria; Belgium; Brazil; China; Colombia; Croatia; Czech Republic; Denmark; Finland; France; Germany; Greece; Hungary; India; Italy; Lithuania; Luxembourg; Mexico; Netherlands; Portugal; Romania; Russia; Senegal; Slovakia; Spain; Sweden; Switzerland; Tanzania; Ukraine; United Kingdom; USA; Venezuela
Data language	English
Key words	soil conservation; agriculture; The Good Growth Plan
Subject	Soil conservation
Copyright year	2017
Copyright holder	Syngenta AG

3. Structure of the data

Presented data are project-level aggregates.

Variable name	Definition	Unit	Type of data
Region	Syngenta definition of organization by region		String
Territory	Syngenta definition of organization by territory (sub-region)		String
Country	Country		String
Project Category	Project focus in terms of sustainable agricultural practice		String
Benefited Hectares	Hectares of farmland that benefit from the positive change brought in by implemented good soil management practices	Hectares	Numeric
Project Objectives	Description of the project objectives and activities		String

Reporting Year	Syngenta's non-financial indicator reporting period is October to September	String

4. Background and methods

4.1. Description of project activities

The aim of our Soil commitment is to support the establishment of "healthy, functional, and resilient ecosystems" in a way that is progressively more integrated with our commercial operations. Sustainable farming needs resilient and healthy soils to secure our food supply for the long term and help increase yields right now. We know that poor soil management practices degrade millions of hectares of farmland.

To achieve this commitment, we're focusing on good soil management practices, such as conservation agriculture – combining minimum or no tillage, crop rotation, and continuous soil cover. These practices foster healthy productive soils that can store more water and reduce erosion and crop damage. This lets farmers improve cropping while protecting soil and water resources on which production relies. For instance, minimum or no tillage minimizes soil disturbance. Crop rotation counteracts weed, disease and insect damage and builds soil fertility, and covering the soil with crops and crop residues reduces erosion and pesticide runoff.

We're advising farmers and giving them the tools they need to implement these practices globally, in partnership with external stakeholders.

Soil fertility improvement within agriculture landscapes has many different meanings as well as ways of implementation in the different geographical regions.

The following three techniques are usually universally described as conservation agriculture:

- Minimum or no soil disturbance – Implementing minimum or no tillage practices to reduce soil disturbance, beneficial for improving soil fertility and structure.
- Crop rotation – Growing different crops sequentially on the same field during different seasons and years.
- Soil cover – Maintaining crop residue or vegetative (crop) cover on the field to protect the soil against erosion retain soil moisture.

Other complementary practices may also be applied once conservation agriculture practices are in place.

- Soil nutrient management - Optimized soil nutrient management through active management of soil carbon and soil organic matter levels, including optimal application of organic and inorganic fertilizers.

- Controlled farm machinery traffic – Controlled traffic on cultivated fields to preventing soil being compacted by heavy or repeated agricultural machinery passes on the land.
- Water management for fertile soils – The management of water resources on farm to help increase crop production, prevent soil erosion, and avoid salinization.

4.2. Sources of data

In-field assessments of the hectares implemented with and benefited from soil conservation practices are conducted and documented by local project managers and external stakeholders. The respective data is measured once, either at the time of implementation or at the time of Syngenta's involvement.

4.3. Data collection tools and process

The number of hectares of benefited farmland established through each initiative is tracked and reported using project record-keeping systems and quality assurance processes. The data and respective evidence is documented, reported and consolidated at a country, territory, regional, and global level, using Microsoft Excel templates. A risk assessment has been conducted to identify reporting risks. Identified risks are mitigated by implementation of internal controls.

4.4. Progress measurement

The data are reported annually and cumulatively by adding the hectares that have been newly established or managed in the respective reporting year. The target is to reach 10 million hectares of farmland that have been benefited by soil management practices listed above.

4.5. Outlook

The next data collection for the reporting period October 2016 – September 2017 is ongoing. We will gradually move towards IT-based record-keeping systems in the near future to further manage reporting risks.

5. Changes versus previous release

March 17th 2017

- Data for Reporting Year October 2015 – September 2016 were added.
- Impacted hectares renamed to benefited hectares

March 16th 2016:

- Data for Reporting Year October 2014 – September 2015 were added.

6. Approval of non-financial performance

The Good Growth Plan data is published as a global aggregate in the Non-financial performance summary on page 55 of the Annual Review 2016. This summary was approved by the Board of Directors on February 7, 2017. Syngenta's Board of Directors and management are responsible for establishing and maintaining adequate internal controls over non-financial reporting. Syngenta's internal controls over non-financial reporting are designed to provide assurance to Syngenta's Board of Directors and management regarding the reliability of non-financial reporting and the preparation and fair presentation of the information published in the Non-financial performance summary. All internal controls, no matter how well designed, have inherent limitations and therefore may not prevent or detect misstatements. In designing internal controls over non-financial reporting, Syngenta used the criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). PricewaterhouseCoopers AG, Switzerland, an independent registered public accounting firm, has issued an opinion on Syngenta's Non-financial performance summary, which is included in the Annual Review 2016 on page 61.

7. Contact information

For questions and inquiries regarding this dataset and documentation, please contact goodgrowthplan.data@syngenta.com.