syngenta

Progress Report 2018

the good growth plan

Contents

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www.syngenta.com

The Good Growth Plan

The Good Growth Plan is a core element of our strategies for both our Crop Protection and Seeds businesses to ensure their success and long-term viability

It defines six commitments in areas where improvement is essential to secure the future of agriculture and our planet's ecosystems. Each commitment sets hard, stretch targets to be achieved by 2020. We report our progress against these KPIs each year and provide additional progress information online at www.data.syngenta.com.

The Good Growth Plan's principles and priorities are deeply embedded in the way we do business. We are gathering unprecedented agricultural data and insight from our reference farms, which we are sharing with partners, academics, NGOs and public institutions worldwide. The lessons we learn are enabling us to enhance our commercial offer, delivering real and measurable benefits to farmers, rural communities and the environment.

In these ways, the Plan contributes to the sustainability both of our own business, and of the wider world that we serve.

So it's appropriate to view our sustainability development not only in business terms, but also in relation to the UN's 17 Sustainable Development Goals (SDGs).

In the UN's words, achieving these goals "requires the partnership of governments, private sector, civil society and citizens alike to make sure we leave a better planet for future generations"[1]. We believe that Syngenta is actively contributing to many of the SDGs, and we recognize a responsibility to maintain a culture of continuous improvement against them. In the following sections, we highlight the relevant SDGs alongside our report on the progress we are making.

1 United Nations Development Programme

At a glance

Make crops more efficient

2020 target

Increase the average productivity of the world's major crops by 20 percent without using more land, water or inputs

2018 progress and key achievements

13.0%

Land productivity increase[1]

We're still raising reference farm yields ahead of their benchmarks and taking a lead in the digital revolution that's set to transform agriculture in the coming years

SUSTAINABLE DEVELOPMENT GOALS

Rescue more farmland

2020 target

Improve the fertility of 10 million hectares of farmland on the brink of degradation

2018 progress and key achievements

10.8m

Hectares of benefited farmland[2]

We've already benefited an area about the size of Guatemala – and we're building momentum with the help of a wide range of partners

Help biodiversity flourish

2020 target

Enhance biodiversity on 5 million hectares of farmland

2018 progress and key achievements

6.4m

Hectares of benefited farmland[2]

The experience and evidence base we're building demonstrates that biodiversity investment makes business sense

1 On reference farms compared to baseline 2014
2 Cumulative since baseline 2014. Differences in totals may occur due to rounding

To find out more about our approach to open data or to access the files **www.data.syngenta.com**

Empower smallholders

2020 target

Reach 20 million smallholders and enable them to increase productivity by 50 percent

2018 progress and key achievements

21.9%

Smallholder land productivity increase[1]

19.5m

Smallholders reached through training and sales[2]

We're demonstrating substantial increases in smallholder yields and working with partners for better on-farm practices

Help people stay safe

2020 target

Train 20 million farm workers on labor safety, especially in developing countries

2018 progress and key achievements

33.8m

People trained on safe use[3]

We're reaching unprecedented numbers and finding new ways to help people use our products safely

Look after every worker

2020 target

Strive for fair labor conditions throughout our entire supply chain network

2018 progress and key achievements

99.6%

Suppliers included in sustainability and fair labor programs[4]

We're on track to reach our 100 percent target – and to be first in our industry with global Fair Labor Association accreditation

1 On smallholder reference farms compared to 2014 baseline
2 Differences in totals may occur due to rounding

3 Cumulative since baseline 2014. Differences in totals may occur due to rounding. Includes smallholders reached through training reported under 'Empower smallholders'

4 The seed supply chain represents about 98 percent of the suppliers targeted by our sustainability and fair labor programs

Make crops more efficient

Increase the average productivity of the world's major crops by 20 percent without using more land, water or inputs

We're still raising reference farm yields ahead of their benchmarks and taking a lead in the digital revolution that's set to transform agriculture in the coming years

UN Sustainable Development Goals 2, 12, 17

Did you know?

10x more

Today, farmers feed at least 10 times more people using the same amount of land as 100 years ago

Source: International Seed Federation, 2018

Progress and key achievements

- → Further productivity increase on reference farms – while benchmark farms underperform
- → Continued to extend sustainability partnerships with growers, food chain companies and governments
- → Sponsored first US Sustainable Agronomy Conference

The world needs a step-change in crop productivity to ensure sustainable food security. We are targeting a 20 percent increase across the world's most important crops in partnership with growers who use our products and agronomic advice. We are devoting particular effort to smallholders, who have the greatest potential to increase productivity.

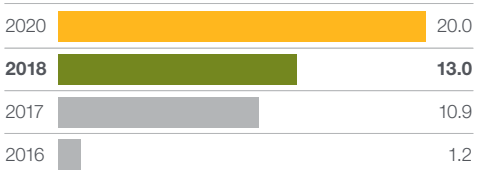
See "Empower smallholders" on **pages 12–13**

To test and measure what's possible, 1,443 reference farmers are working with our field experts to share know-how and trial new solutions for 20 crops in 39 countries. Another 2,316 benchmark farms, many also using Syngenta products, deepen our understanding of what drives productivity and efficiency, and help us track progress over time.

Reference farms continue to outperform

Globally, a further rise in yields on our reference farms took the increase since the 2014 baseline to 13.0 percent. This represented continuing outperformance against the benchmark farms, where the uplift since 2014 reduced slightly to 7.0 percent.

Land productivity increase %[1] 13.0%



1 On reference farms compared to baseline 2014

Farm network

	2018	2017	2016
No. of reference farms	**1,443**	1,459	1,039
No. of benchmark farms	**2,316**	2,630	2,694

Within this good overall result for the reference farms, there was significant variation among individual countries and crops. A good year for China included particularly strong gains for potato growers adopting seed treatment and locally-bred disease-resistant varieties. By contrast, in LATAM, Brazilian and Guatemalan coffee growers experienced weather challenges – mainly drought – which reduced crop yields, while maize growers were unable to match the record yields achieved in the previous year's exceptionally favorable weather conditions.

Deepening our understanding of farm productivity

Our reference and benchmark farm networks remained little changed in 2018. But we continue to develop and refine our systems and processes for collecting and analyzing their data. The digital tools that we are now bringing to market are creating opportunities to further improve the quality of the data we collect, and, eventually, may greatly increase the number of farms we monitor.

This direction supports an increasingly evidence-based approach, in which we use technologies such as artificial intelligence to mine data for insights that improve our product development and commercial offers, help growers connect better with the value chain, and bring demonstrable, measurable and documented benefits to society and the environment.

We advise reference farms in the safe and efficient use of Syngenta products according to optimized protocols: the right product at the right time in the right amount. In 2018, reference farms' pesticide field application efficiency increased to a total of 24.7 percent (2017: 14.2 percent), compared to 2014 baseline.

In 2017, we began reporting greenhouse gas (GHG) footprints from our farm network. This data is increasingly important to the food industry's efforts to better understand the sustainability of its supply chains. In 2018, our reference farms showed an average 8.8 percent in GHG emission efficiency increase compared with the 2014 baseline. Comparing performance at crop level, averaged over the five years of monitoring, 69 percent of reference farms have outperformed the benchmark farms.

Case study

Sustainable Solutions: adding value for the value chain

Responding to consumer demand, food retailers take increasing account of sustainability criteria in their purchasing decisions. Syngenta Sustainable Solutions works directly with growers and partners in the US food value chain, helping farmers collect and analyze data to make more sustainable input decisions.

Farmers in the program are able to assess their farm's environmental results against anonymized community benchmarks. Covering efficiency indicators such as land-, water- and nitrogen-use, as well as soil conservation and GHG emissions, this data demonstrates sustainability metrics to value chain customers.

Applying what we learn

Already, our farm data is helping to shape a better future. By applying what we learn, we help growers and the value chain in new ways.

The development of our NUCOFFEE® Sustentia project in Brazil demonstrates the evolving benefits for growers and value chain partners. When we launched it in 2006, with UTZ as our value chain certification partner, the project was focused on crop quality. Later, we were able to help participating farmers improve their productivity and efficient use of inputs such as crop protection and nutrients. Now we're working with them to better understand the drivers of sustainability improvements such as GHG reduction. As we collect more data through The Good Growth Plan – and integrate it with other inputs such as weather data – we are seeing a step change in the spectrum of insights and benefits that we bring to growers and the value chain.

In North America, Syngenta Sustainable Solutions has been helping customers for a decade – not only to make their farms more productive and sustainable, but also to engage effectively with the value chain by documenting and supporting good environmental practice (see case study on page 5).

Current programs include using data collected through AGRIEDGE EXCELSIOR® to test strategies for managing weed resistance more effectively. We are also working with farmers, food companies and universities on feeding cattle with ENOGEN® corn for more sustainable meat and milk production. One study has confirmed a 5 percent feed efficiency gain with ENOGEN®, and others are appraising its potential to cut GHG emissions.

Sharing what we learn

Syngenta is at the forefront of using and sharing data to help growers make better decisions that lead to significant productivity and efficiency improvements. As a result, we are also well placed to give food chain companies and governments insight into how best to support more sustainable agriculture.

We publish detailed Good Growth Plan progress data on our open data website at www.data.syngenta.com. By visualizing and offering data in a wider range of formats, we aim to increase accessibility and engage others with what we are doing. We continue to work with the Open Data Institute to ensure we share data in ways that can be used effectively by those who need it for their own research.

In 2018, we sponsored North America's first Sustainable Agronomy Conference, organized by the American Society of Agronomy, and focused on how to move sustainable agriculture from the research field to the commercial field.

Governments at local, national and regional level are increasingly engaging our insights and expertise through partnerships to support their own agendas and goals. In China, for example, we are working with a growing number of agencies on projects that support government sustainability and agricultural modernization agendas. Examples include partnering with the Dingxi Agricultural Bureau and local government to enhance the productivity of potato and other vegetable farms in the northwest of the country. We have trained more than 500 farm workers, introduced sunflowers, vegetables and herbs as commercially-valuable cover crops, and achieved yield uplifts of around 20 percent for potatoes and 14 percent for cabbages.

+20% yield improvement

Yield improvement achieved with potato growers in Dingxi, northwest China

Rescue more farmland

Improve the fertility of 10 million hectares of farmland on the brink of degradation

We've already benefited an area about the size of Guatemala – and we're building momentum with the help of a wide range of partners

UN Sustainable Development Goals 2, 13, 15, 17

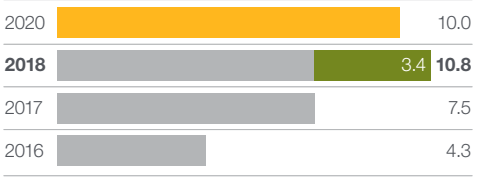
Progress and key achievements

- → 2020 target exceeded with benefited hectares up by 7 percent, as digital technologies support continuing rapid scale-up
- → Strong progress in demonstrating benefits to value chain
- → New commitment to improve 2 million hectares in China under Race to Zero initiative

Today, over 50 percent of farmland is affected by soil degradation. We're working to promote practices that help farmers maintain healthy soil, protect it from wind and rain erosion, and increase soil fertility. The solutions we offer also help them to reduce their carbon footprints and adapt to climate change.

We actively promote conservation agriculture based on minimum soil disturbance, crop rotation and permanent ground cover. It is a central element in climate-smart agriculture, helping to reduce emissions, prevent land degradation, improve food security, increase farm and community resilience, and deliver better crops to the value chain. As well as working with farmers, we are raising awareness of soil conservation among value chain partners, government institutions and academics.

Hectares of benefited farmland[1] m — 10.8m



1 Cumulative since baseline 2014.
Differences in totals may occur due to rounding

In the fifth year of our soil health programs, we surpassed the target that we committed to reach by 2020. We aimed to improve 10 million hectares – an area about the size of Guatemala. With 197 projects implemented in 41 countries, we are already benefiting 10.8 million hectares.

This success has been driven by three key factors: integration of conservation practices into our commercial offer; digital solutions; and partnerships with governments and the value chain.

Integrating soil health into our sales offer

Integrating soil conservation practices into our crop protocols and training is helping to differentiate our commercial offer and also benefits our own seed multiplication operations. Examples include INTEGRARE™, our high-yield soybean solution combining seeds, seed treatment, crop protection and services such as water- and soil-nutrition management. Since its launch in 2015, INTEGRARE™ acreage in Brazil passed 1.1 million hectares.

In Europe, we have developed HYVIDO® to help farmers produce better-yielding, higher-quality barley. This technology brings together three barley hybrids with tailored cultivation protocols to allow higher yields and better soil conservation management.

Did you know?

It takes nature 500 years to replace 25mm of lost soil

Source: Pimental, D. and Pimental, M.; 2003

Digital solutions are making a big difference

The digital agriculture solutions we've developed are adding further impetus to soil health programs. This applies particularly in Latin America, which accounted for most of the additional acreage benefited by our initiatives in 2018.

Our strategy is increasingly linked to digitalization of agriculture through multi-stakeholder platforms with partners who provide equipment and machinery, financial solutions and educational support. This enables us to build propositions that farmers will adopt because they can see demonstrable economic and sustainability benefits.

In Brazil, for example, we worked with a digital technology company, SmartBio, to develop a pest management platform that integrates field mapping, digital monitoring, satellite imaging, weather data and specialist training. This enables sugarcane growers to map areas susceptible to different stress factors and optimize crop management and treatment accordingly.

With a further 2 million hectares added in 2018, this is now our largest soil health project worldwide.

Runoff is a major cause of land degradation. Reducing it helps to keep soils fertile and waterways clean; and good soil management practices can significantly cut runoff and erosion.

Bigger partnerships drive wider adoption

Over time, we have been able to develop larger-scale collaborations with a wide range of partners. This provides added leverage and credibility with growers, and it helps us to make the case for supportive government policies.

Syngenta has been the private-sector partner of the UN Convention to Combat Desertification (UNCCD) for five years, alongside the World Business Council for Sustainable Development (WBCSD).

Together, we have organized over 30 Soil Leadership Academy workshops to raise awareness among UNCCD member nations, civil society organizations and academia. With the WBCSD, we have published a report on the business case for investment in soil health, targeting governments, value chains, farmers and land users. This was launched on World Soil Day in December 2018.

We have also joined value chain partners including Unilever, Olam, Barry Callebaut and Rabobank to launch the CSA100 initiative. This aims to unite 100 leading food value chain companies in promoting climate-smart agriculture that increases agricultural productivity and incomes sustainably, builds resilience to climate change and reduces greenhouse gas emissions.

Other initiatives with value chain partners in 2018 included a transformative series of interventions on Vietnamese coffee plantations, see case study (right), and an ambitious national project to reboot corn cultivation in Italy. The 'Mais in Italy' program is a collaboration between Syngenta and farmers, scientists and value chain partners to make the crop more productive, efficient and sustainable by integrating the most appropriate genetics, crop protection and agronomic protocols. As part of this program, we are also promoting best practice in soil conservation.

This includes minimal machinery passes and soil disturbance, crop rotation to reduce runoff exposure and digital systems to optimize irrigation.

Helping China race to zero carbon

We promote cover crops as an aid to minimum-tillage soil conservation in most parts of the world. In 2018, the main focus of these efforts was China, where we have committed to reduce carbon emissions over the next five years through soil conservation programs on 2 million hectares of farmland. This area represents 2 percent of all farmland in China, and the initiative is part of our contribution to China's Race to Zero drive towards zero-carbon, zero-waste business practices.
In Yantai and Shandong provinces, permanent ground cover projects with apple and grape growers have improved soils and shown economic benefits for employees, suppliers, governments and communities – increasing farmers' incomes by over US$900 per hectare.

Case study

Brewing more sustainable coffee with value chain partners

In Vietnam, we are are working to improve soil management on coffee plantations with two value chain partners – the Louis Dreyfus Company and Jacobs Douwe Egberts – and IDH The Sustainable Trade Initiative. Using 30 demonstration plots as well as direct action on farms, the three-year project aims to develop and promote sustainable landscapes that reduce soil degradation, combat deforestation, conserve irrigation water and improve climate change resilience. We aim to train some 2,500 farmers and agronomists on sustainability issues, eliminating overuse and unsafe use of pesticides. We are also working with local authorities to develop a model that can be scaled up further. The next phase of the partnership will extend the model into three more Highlands provinces, benefiting a total of 5,500 farmers by 2021.

Help biodiversity flourish

Enhance biodiversity on 5 million hectares of farmland

The experience and evidence base we're building demonstrates that biodiversity investment makes business sense

UN Sustainable Development Goals 2, 15, 17

Progress and key achievements

- → 2020 target exceeded by over 27 percent
- → Published research to quantify the economic and social benefits of multi-functional field margins
- → Stepped up biodiversity projects with national institutions in China

Did you know?

84%

In the European Union, 84 percent of crop species depend at least partly on pollination by wildlife

Source: Proceedings of the Royal Society, Klein et al, 2007

The sustainability of agriculture relies on biodiversity – for plant breeding, pollination and food diversity. We are promoting and enabling action to increase and connect habitats that support healthy and diverse wildlife populations. A key strategy is managing less-productive farmland alongside fields and waterways to reintroduce local species, provide buffers for soil and water, and provide corridors connecting wildlife habitats. These multi-functional field margins (MFFMs) support sustainable intensification on the more productive land.

Demonstrating the value of diversity

Although we surpassed our 2020 target in 2017, we continue investing in both new and existing biodiversity initiatives. We have now implemented 301 projects in 39 countries, benefiting a total of 6.4 million hectares. Benefits for farmers include reduced soil erosion and better soil nutrient cycling, crop pollination, pest control and water quality regulation. Wider social gains include enhanced genetic diversity, carbon sequestration, flood attenuation and recreation opportunities.

After an exceptional year in 2016, the pace of increase in impacted acreage has moderated. Though integrating biodiversity into commercial offers is a complex task, we have continued to develop and promote programs that emphasize biodiversity as an integral part of good agricultural practice and land stewardship.

Hectares of benefited farmland[1] m — 6.4m

1 Cumulative since baseline 2014.
Differences in totals may occur due to rounding

In collaboration with Bioversity International and Arcadis, we have developed a discussion paper evaluating the value of MFFMs in the agricultural landscape. It documents 20 natural and environmental benefits, along with 15 social-capital benefits, and quantifies them financially, to help farmers see the monetary value that MFFMs create for them and for society. We are now organizing events and roundtables with our partners, using this paper to generate interest from value chain companies and the financial sector that will drive higher investment in MFFMs.

Download the joint discussion paper on multi-functional field margins **www.publications.syngenta.com**

Scaling up Operation Pollinator™

We continue to promote landscape connectivity – a key factor for habitat and biodiversity conservation in agricultural landscapes. Our largest program is in Brazil, where we started work in 2008 and are still building momentum with policy makers, farmers, local communities, NGOs and value chain companies. Projects that began in municipalities now expand across whole states. In addition to this, our principal focus in 2018 has been on extending our Operation Pollinator™ programs around the world.

In 2018, we joined several Chinese government agricultural and research bodies in staging a Bee Conference with the theme "Bee Booming, Plant Flourishing, Green Growing". This provided an opportunity to share our experience gained through implementing our Operation Pollinator™ and Hives on Farms programs on over 10,000 acres of Chinese farmland and fruit orchards, see case study (right).

Value chain companies are increasingly interested in collaborating on Operation Pollinator projects, and we began new initiatives with food companies in Argentina and Brazil in 2018. We are also looking beyond farmland: in North America we have been applying our management expertise and seed consulting services to transform a growing number of out-of-play areas on golf courses into improved habitat for bees and other pollinators.

Case study

Bees are the keys to kiwis that please

In China, we have been working with the Institute of Apiculture Research at the Academy of Agricultural Sciences on projects to improve fruit yields and quality through better pollination. We have had significant success with bees in kiwi orchards in Sichuan province where we established field margins and put beehives on farms. We have shown how bee pollination can provide a cheaper and more efficient alternative to hand pollination, producing higher quality fruit with strong consumer appeal.

Empower small-holders

Reach 20 million smallholders and enable them to increase productivity by 50 percent

We're demonstrating substantial increases in smallholder yields and working with partners for better on-farm practices

UN Sustainable Development Goals 1, 2, 17

Progress and key achievements

- → Further land productivity increase on smallholder reference farms to 21.9 percent
- → Global reach increased and more people trained
- → Increasing involvement with value chain partners to drive smallholder improvement

Did you know?

20-30% yield gap

Globally there's a 20-30 percent yield gap between men and women farmers in developing countries

Source: Food and Agriculture Organization of the United Nations (FAO), 2011

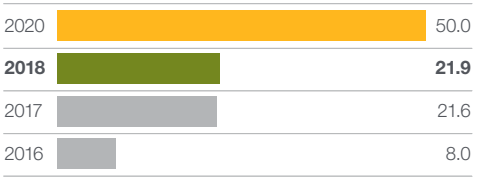
Smallholders produce more than 80 percent of the food consumed in much of the developing world. Their crop productivity lags well behind that of larger producers, so closing the gap could significantly improve food security and reduce poverty.

Over half of our sales are made in growing economies where smallholder farmers predominate. Our contact with these customers is generally indirect: they buy through local distributors and retailers.

Yields up and reach boosted by training

Our network of smallholder reference farms maintained the yield increase achieved since 2014, with a small additional increase: their overall land productivity was 21.9 percent above the 2014 baseline (2017: 21.6 percent). This was 3.5 times the increase achieved by benchmark smallholders over the same period.

Smallholder land productivity increase[1] % 21.9%

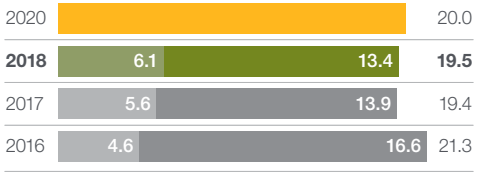


1 On smallholder reference farms compared to baseline 2014

Very often, smallholders' yields are impaired by limited access to technology, or lack of knowledge about how to apply it effectively. For example, reference tomato growers in Africa have seen significant yield gains since we introduced them to hybrid seeds and gave them appropriate training.

In the Philippines, we found particularly poor yields among rice growers using low-quality crop protection. After training in efficient use of high-performance products such as VIRTAKO® insecticide, some of these growers have doubled their yields per hectare.

Smallholders reached through training and sales[2] m 19.5m



2 Differences in totals may occur due to rounding

Our smallholder reach is estimated by adding the numbers of smallholders reached based on sales volume data and the number of farmers reached through training. The number of smallholders reached through sales decreased slightly: from 13.9 million in 2017 to 13.4 million in 2018. We saw significant variation between regions: an increase in China thanks to higher corn prices; an increase in Africa and the Middle East due to adding new products to the smallholder offer; stable results for South Asia; and declines in ASEAN and LATAM.

At the same time, we were able to extend the number of smallholders reached through training across all regions to 6.1 million (see "Help people stay safe" on pages 14–15). The growing impact of our training is driven by three principal factors. Our commercial teams increasingly see training as an important part of our offer to customers. We are making better use of our customer relationship management tools to promote and record training activity, improving training data collection. And our safety training resources continue to expand as we train more trainers, particularly in APAC and LATAM.

Tailoring our offer to smallholder needs

Smallholders are necessarily very focused on price, and high-quality products like ours face strong and growing competition from low-cost generics. We are developing new commercial partnerships to better tailor our offer to smallholder needs, so that we offer attractive cost/benefit propositions.

For example, by training West African cocoa growers in safe and effective use of PERGADO® Cocoa fungicide, we have enabled them to increase yields by 40 percent or more, satisfy value chain residue requirements, and increase family incomes by US$300 a year. We have launched PERGADO® Cocoa in Côte d'Ivoire as our first copper-free solution and expect to extend this new mandipropamid-based product across West Africa in the near future.

When we bring products like this to smallholder markets, technology together with training and technical advice – supported by partners – are important elements of our offer. We want to ensure that growers use our products both safely and efficiently to get the best return on investment and improve the livelihoods of their families and communities.

Demonstrating best practice

Training for smallholders is important across our Good Growth Plan commitments. For example, in India we have joined forces with a global food and beverage producer to establish a model farm in the state of Maharashtra. We provided training and best practice demonstrations in areas such as soil conservation and biodiversity, as well as safe storage and use of chemicals. And our WeCare initiative in India, while focused on product stewardship, educates growers in protecting crops effectively to improve productivity and thus livelihoods (see case study on page 15).

Smallholders can significantly improve their incomes if their crops meet the specifications of corporate buyers. So we have a growing number of joint projects with value chain partners focused on specific crops. In addition to our work with coffee growers in Vietnam (see case study on page 9), in Mexico, we have joined several corporate partners to improve feed crops for family dairy farms, see case study (right).

Case study

Better corn keeps family dairy farms viable

The Mexican state of Jalisco may be better known for tequila, but it supports around 14,000 family dairy farms. Many of these are struggling to stay viable. Together with the local Agricultural Council and large milk purchasers, we launched an initiative to transform their economic situation through better feed production.

On over 40 smallholder farms, our crop protection protocols on corn and technical support and training have cut the cost of feeding cattle by 30 percent. Also, milk quality has increased, enabling these family farms to realize better prices for their milk. By 2021, we aim to be bringing these benefits to 1,500 family farms.

Help people stay safe

Train 20 million farm workers on labor safety, especially in developing countries

We're reaching unprecedented numbers and finding new ways to help people use our products safely

UN Sustainable Development Goals 2, 3, 17

Progress and key achievements

- → Exceeded our 2020 target by over two-thirds
- → Train-the-Trainer programs continue to increase capacity
- → Increased collaboration with companies and partners to improve safety

We share a responsibility to help improve occupational safety and health in agriculture. Ensuring that our products are used correctly is integral to our business model – to protect not only the health and safety of farm workers and the public, but also the environment. This is particularly important for smallholders, especially in developing countries, who often lack access to guidance on using crop protection efficiently, responsibly and safely.

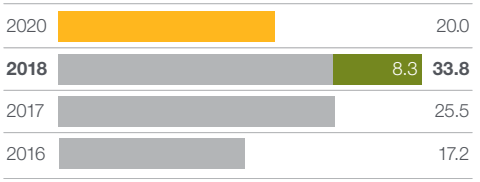
Making training a key part of our offer

In 2018, we reached 8.3 million people (2017: 8.2 million) with safety training and safe-use awareness-raising initiatives linked to commercial activities. This brought the cumulative total since 2014 to 33.8 million, two-thirds more than the 20 million target we originally set for 2020.

Smallholders make up about 70 percent of the people we train: in 2018, we reached a further 6.1 million smallholders (2017: 5.6 million).

People trained on safe use[1] m

33.8m



1 Cumulative since baseline 2014. Differences in totals may occur due to rounding. Includes smallholders reached through training reported under 'Empower smallholders'

Our successful Train-the-Trainer programs are greatly increasing our capacity to promote good stewardship. As well as educating our own sales teams, we have also included partners, distributors and researchers working in the field. This is helping them to impart technical knowledge – how to use our products safely and minimize environmental impacts – as well as to engage and influence people more effectively to change behaviors.

Protecting crops efficiently and safely

The benefit for customers comes not only from using our products safely, but also from using no more than is necessary, so that they minimize environmental impact and maximize their return on investment.

In China, Syngenta has long been an industry leader in safe-use training. We work with many partners including national and local government bodies, such as the National Agricultural Technology Extension and Service Center, with whom we have had joint programs in all 31 mainland provinces since 2000. Training sessions cover both safe use and new application technology, pollinator safety, resistance management and support for the government's Pesticide Zero Growth strategy, which promotes optimal application to increase effectiveness without increasing volumes.

More than just training

Training is only one aspect of our approach to stewardship. We are also developing digital tools to help growers identify the right – and wrong – weather or groundwater conditions for using particular products. We aim to maximize the clarity of labeling, for example, to communicate effectively with illiterate users. In Bangladesh, we have introduced and monitored the success of using life-size photo posters to promote recognition and understanding of label guidance as well as pictograms on appropriate personal protective equipment.

We have also been partnering with equipment manufacturers on enhancements to product design, handling and training. For example, in LATAM we have helped aerial spraying equipment manufacturers to train pilots more effectively in optimizing speed, height and wind conditions for safer spraying. We also work with equipment manufacturers on more secure ways to transfer product from containers to application equipment.

In association with the industry association CropLife, we have also been running programs to make personal protective equipment more widely available in India.

Case study

Making the news in India

Communication of safe-use principles is challenged by low literacy levels and the remoteness of many farming communities in India. As one of many initiatives to broaden awareness, we introduced the WeCare stewardship campaign, based in five cities across five states. This included programs to teach basic hygiene and stewardship in schools, demonstrations of safe-use and good agricultural practices on Syngenta reference farms, classroom sessions for growers on application technology, and pre-season maintenance camps to help growers calibrate and repair their application equipment. The campaign reached over 5,000 young people, 2,000 growers and a broader public through extensive national media coverage.

Look after every worker

Strive for fair labor conditions throughout our entire supply chain network

We're on track to reach our 100 percent target – and to be first in our industry with global Fair Labor Association accreditation

UN Sustainable Development Goals 2, 8, 17

Progress and key achievements

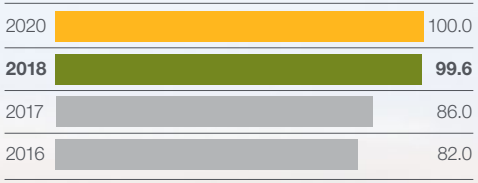
- → On track to have 100 percent of our seed production farms included in our Fair Labor Program
- → 96 percent of flowers farms now have GLOBALG.A.P. certification, 44 percent with G.R.A.S.P. assessments
- → 94 percent of chemical suppliers covered by our Supplier Sustainability Program

2018 progress: target nearly achieved

We are committed to ensuring fair labor conditions across our supply chain, and we recognize our responsibility to ensure suppliers meet the highest ethical standards. In 2018, we made strong progress towards our targets in the seed, flowers and chemical supply chains.

Suppliers included in sustainability and fair labor programs[1] %

99.6%



1 The seed supply chain represents about 98 percent of the suppliers targeted by our sustainability and fair labor programs

Fair labor on seed supply farms

Our seed supply chain poses particular challenges. Comprising some 36,000 farms in 32 countries, it represents about 98 percent of the suppliers targeted by our sustainability and fair labor programs. Since 2004, we have partnered with the Fair Labor Association (FLA) to develop and roll out our Fair Labor Program tailored specifically for this complex supply chain. It sets and monitors labor rights standards in areas such as job contracts and compensation, safe and just working conditions, and dignity and respect.

Fair Labor Program coverage of our seed supply farms reached 99.9 percent in 2018 (2017: 86 percent). We completed coverage in a further nine countries during the year, including Canada, France and the US. This leaves only three countries to be added – vegetable seed farms in Honduras, Guatemala and Peru – and by mid-2019 we will have full coverage of all our seed-producing countries.

The acquisition of Nidera™ Seeds in 2018 brought us additional corn and soybean seed supply farms, mostly in Brazil but also in Argentina. Integration of these into the Fair Labor Program began in 2018 and will be complete in 2019.

Seeking global recognition

In 2015, the FLA gave us accreditation in India. We were the first agricultural company to earn this status, which confirms that a company's systems and procedures have been shown to uphold fair labor standards successfully throughout its supply chain. Since then, we have been working to achieve the agricultural sector's first global accreditation. After considerable work in 2018, we hope to receive this in 2019.

Addressing challenges effectively

In India, we have been a prime mover in addressing farms' widespread non-compliance with minimum wage standards. This requires an industry-wide approach. In consultation with our major competitors, we have drawn-up safeguards, so that prices paid for crops reflect applicable minimum wage levels, and new contract and payment structures are designed to ensure that payments made to farmers actually reach farm workers.

In many countries, migrant workers are especially vulnerable to exploitation on farms. We take appropriate action whenever we encounter such cases. In Thailand, there has been particular concern over the treatment of migrants from Myanmar. In 2018, we asked the FLA to help us investigate the extent of the problem in our farm network. This has enabled us to work with local NGOs on remedial action, including improving accommodation and working conditions, as well as raising awareness among employers about fair labor practices.

Transparent, independent audits

The FLA publishes its audit findings with all remediation plans and reports on progress against them

Read more on **www.fairlabor.org/affiliate/syngenta**

Digitizing audits

Every year, we collect and manage data from thousands of seed supply farm audits. Over the years, different countries have developed their own procedures. We have now developed a digital tool that ensures we apply consistent processes everywhere. The new system enables us to plan and arrange farm inspection visits, collect audit data from them and collate it for each farm and crop, ensure full visibility of compliance, track our recommendations and actions, and monitor implementation of improvements. It is already adding rigor and transparency to the way we manage our Fair Labor Program, and it will enable us to see more clearly where to focus attention in future.

Flowers: Fairtrade status and a stronger G.R.A.S.P.

In our flowers business, we are aiming for all our own and third-party flowers farms to have GLOBALG.A.P. certification, covering worker well-being and production quality, with larger farms also meeting the G.R.A.S.P. standard for labor conditions. In 2018, we extended GLOBALG.A.P. certification to 96 percent of flowers farms (2017: 90 percent), with 44 percent also undergoing G.R.A.S.P. assessment (2016: 32 percent).

In June 2018, our Kenya cuttings farm achieved Fairtrade accreditation, our first accreditation under this scheme. Fairtrade recognizes decent working conditions, local sustainability and fair terms of trade, and in addition, certified sales generate a Fairtrade Premium for workers to invest in community projects of their choice. For details, see case study on page 19.

A more rigorous view of process safety

We engage with our chemical suppliers to assess and drive improvement in their health, safety, environmental and social standards through our Supplier Sustainability Program. This consists of on-site audits by our own auditors, and audits or assessments conducted through the chemical industry's Together for Sustainability (TfS) initiative.

The program aims to assess suppliers' performance against our standards, identify potential gaps, and support suppliers in making the required improvements. We are now close to our goal of bringing all chemicals suppliers in material risk categories into the program. In 2018, we increased coverage to 94 percent of suppliers in these categories (2017: 90 percent) and broadened the program's reach to include formulation, fill and pack suppliers and packaging manufacturers.

Our focus is on helping suppliers to improve in the most critical areas, in particular process safety management. Our technology and sourcing managers visit suppliers' facilities to run on-site safety awareness training. Other initiatives, such as a three-day process safety workshop recently staged in India, help suppliers address process safety gaps in areas from risk assessment to emergency management.

Through the chemical industry's TfS initiative, we work collectively with other member companies to drive improvement in the sustainability of industry supply chains. Our membership gives us valuable access to pooled supplier data from audits and assessments covering all areas of sustainability.

See "Sustainable operations" in our **Sustainable Business Report 2018** on **www.syngenta.com**

Did you know?

>25% of workers

More than one quarter of the world's working population is employed in agriculture

Source: International Labour Organization (ILO), 2018

Case study

Fairtrade recognition for Kenya operation

Consumers are increasingly concerned about the ethics behind the products they buy. The Fairtrade program certifies that producers meet defined labor, sustainability and trading standards. We sought Fairtrade accreditation for our Kenya cuttings farm in response to growing value chain demand for cuttings and young plants with this globally recognized endorsement. As the farm already met the standards for GlobalG.A.P. certification and G.R.A.S.P. assessment, Fairtrade certification was the logical next step in supporting the local community and satisfying our customers' desire to offer the market ethical choices. As well as achieving accreditation for the cuttings farm, we also certified Syngenta Seeds in the Netherlands as a Fairtrade trader.

The Good Growth Plan progress data

Since we launched The Good Growth Plan, we've established a solid foundation for progress reporting based on independent data collection and validation and endorsement through our implementing partners. We publish our data to be transparent and accountable, and to create new opportunities for informed dialogue with our stakeholders.

Reporting period October 1 – September 30	Cumulative since baseline 2014	2018	2017	2016
Make crops more efficient[1,2]				
Total number of reference farms		**1,443**	1,459	1,039
Total number of benchmark farms		**2,316**	2,630	2,694
Land productivity increase on reference farms		**13.0%**	10.9%	1.2%
Land productivity increase on benchmark farms		**7.0%**	7.3%	-2.6%
Nutrient efficiency increase on reference farms		**30.2%**	20.3%	1.5%
Reference farms outperforming benchmark farms[3]		**64%**	–	–
Pesticide field application efficiency increase on reference farms		**24.7%**	14.2%	-16.2%
Reference farms outperforming benchmark farms[3]		**38%**	–	–
Greenhouse gas emission efficiency increase on reference farms[4]		**8.8%**	14.0%	7.0%
Reference farms outperforming benchmark farms[3]		**69%**	–	–
Rescue more farmland				
Hectares of benefited farmland (m)	10.8	**3.4**	3.1	1.9
Help biodiversity flourish				
Hectares of benefited farmland (m)	6.4	**0.8**	0.7	3.3
Empower smallholders				
Land productivity increase on smallholder reference farms[1,2]		**21.9%**	21.6%	8.0%
Land productivity increase on smallholder benchmark farms[1,2]		**6.3%**	5.1%	1.6%
Smallholders reached through training (m)		**6.1**	5.6	4.6
Smallholders reached through sales (m)		**13.4**	13.9	16.6

1 Reference farms were selected by Syngenta and are recommended to use Syngenta products and follow optimized protocols. Benchmark farms were randomly selected by a third-party research agency and represent grower practice. Reference and benchmark farms are grouped in clusters. A cluster presents homogeneous agro-climatic conditions and contains reference and/or benchmark farms with similar grower characteristics

2 Policy on land productivity and efficiency reporting was revised in 2017. Starting 2017, the aggregation of the farm data is aligned with harvest seasons to ensure more timely reporting of results. The latest available progress data is 2017 for clusters located in the Northern hemisphere and 2018 for clusters located in the Southern hemisphere. Evolutions are reported for clusters with an established baseline and at least one year of progress data. Figures represent global averages. Details on aggregation, calculation of evolutions and other adjustments can be found on www.data.syngenta.com

3 New KPIs introduced in 2018 to capture the performance of reference farms versus benchmark farms

4 Greenhouse gas emissions are calculated consistent with Cool Farm Tool methodology using available farm data and proxies where farm data was not available. For US farm data, calculation methodology is consistent with Field to Market: The Alliance for Sustainable Agriculture. Details on data inputs, methodology, assumptions and limitations can be found on www.data.syngenta.com

Reporting period October 1 – September 30	Cumulative since baseline 2014	2018	2017	2016
Help people stay safe				
People trained on safe use (m)[1]	33.8	**8.3**	8.2	6.8
Countries with established Syngenta product toxicovigilance programs		**100**	100	100
Crop Protection sales represented		**93%**	94%	94%
Look after every worker				
Suppliers included in sustainability and fair labor programs[2]		**99.6%**	86%	82%
Coverage of Syngenta Fair Labor Program				
Syngenta seed producing countries		**91%**	68%	41%
Seed supply farms		**99.9%**	86%	82%
Of which: farms in Fair Labor Association (FLA)'s audit scope		**100%**	67%	62%
Of which: farms monitored[3]		**n/a**	20%	18%
Coverage of Supplier Sustainability Program				
Chemical suppliers[4]		**94%**	90%	67%
Formulation, fill and pack tollers[4,5]		**86%**	–	–
Packaging manufacturers[5,6]		**50%**	–	–
HSE audits at warehouse/logistics service providers		**65**	117	137
Commercial flowers farms with valid GlobalG.A.P. certification		**96%**	90%	73%
Commercial flowers farms with valid G.R.A.S.P. assessment		**44%**	32%	24%

1 Includes smallholders reached through training reported under 'Empower smallholders'
2 The seed supply chain represents about 98 percent of the suppliers targeted by our sustainability and fair labor programs
3 The 2018 figure is not available due to the implementation of a new reporting tool
4 Includes only chemical suppliers or formulation, fill and pack tollers categorized as posing a high or medium sustainability risk
5 New KPIs introduced in 2018 to capture the ongoing inclusion of new types of suppliers in the Supplier Sustainability Program
6 Includes all packaging manufacturers independently of their level of sustainability risk

To find out more about our approach to open data or to access the files **www.data.syngenta.com**

Syngenta AG
P.O. Box
CH-4002 Basel
Switzerland

Sustainability
E sustainability.syngenta@syngenta.com

www.syngenta.com

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Keep up to date with The Good Growth Plan

Throughout the year, we provide updates on The Good Growth Plan website. There, you'll find more information about each commitment as well as a range of case studies from the field.

Read more on
www.goodgrowthplan.com

To find out more about our approach to open data or to access the files

Read more on
www.data.syngenta.com

Syngenta supports the 10 principles of the United Nations Global Compact through an established commitment to sustainability and ongoing implementation of policies on human rights, fair labor, environmental protection and anti-corruption.

THE GLOBAL COMPACT
WE SUPPORT

Through The Good Growth Plan, Syngenta supports the United Nations Sustainable Development Goals (SDGs). Collectively, the Plan's six commitments contribute towards delivering the SDGs: all six commitments contribute directly to Goal 2 (zero hunger) and Goal 17 (partnerships for sustainability), as well as individually towards a number of other goals.

SUSTAINABLE DEVELOPMENT GOALS

Read more on
www.sustainabledevelopment.un.org

Bringing plant potential to life