SYNGEN	ITA AG
Form 20-	F
February	11, 2016

	As filed with the	Securities and	l Exchange	Commission	on February	<sup>7</sup> 11, 2016
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**UNITED STATES** 

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

#### **FORM 20-F**

O REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE

#### **SECURITIES EXCHANGE ACT OF 1934**

OR

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2015

OR

o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE

**SECURITIES EXCHANGE ACT OF 1934** 

OR

o SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE

**SECURITIES EXCHANGE ACT OF 1934** 

Commission file number: 1-15152

# SYNGENTA AG (Exact name of Registrant as specified in its charter) **Switzerland** (Jurisdiction of incorporation or organization) Schwarzwaldallee 215, 4058 Basel, Switzerland (Address of principal executive offices) **James Halliwell** +41 61 323 1111 james.halliwell@syngenta.com Syngenta International AG P.O. Box CH-4002 Basel, Switzerland (Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person) Securities registered or to be registered pursuant to Section 12(b) of the Act: Name of each exchange on Title of each class which registered American Depositary Shares, each representing one-fifth of a common share of New York Stock Exchange Syngenta AG, nominal value CHF 0.10

Securities registered or to be registered pursuant to Section 12(g) of the Act: **None**Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: **None**Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

92,945,649 Common shares, nominal value CHF 0.10 each

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
x Yes o No
If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.
o Yes x No
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
x Yes o No
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).
o Yes o No
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

Large accelerated filer x Accelerated filer o Non-accelerated filer o

# U.S. International Financial Reporting Standards as issued by the International Accounting Other o

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

o Yes x No

Introduction
NATURE OF OPERATIONS
Syngenta AG ("Syngenta" or the "Company") is a world leading agribusiness operating in the crop protection and seeds business, which is involved in the discovery, development, manufacture and marketing of a range of products designed to improve crop yields and food quality, and in the lawn and garden business, which provides professional growers and consumers with flowers, turf and landscape, and professional pest management products.
Syngenta is headquartered in Basel, Switzerland and was formed by Novartis AG ("Novartis") and AstraZeneca PLC ("AstraZeneca") in November 2000 through an agreement to spin off and merge the Novartis crop protection and seeds businesses with the AstraZeneca agrochemicals business to create a dedicated agribusiness company whose shares were then the subject of a global offering (the "Transactions"). The Transactions were completed on November 13,

#### FORWARD-LOOKING STATEMENTS

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The statements contained in this annual report that are not historical facts, including, without limitation, statements regarding management's expectations, targets or intentions, including for sales, earnings and earnings per share, constitute forward-looking statements within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, and are based on the current expectations and estimates of Syngenta's management. Investors are cautioned that such forward-looking statements involve risks and uncertainties, and that actual results may differ materially.

Syngenta identifies the forward-looking statements in this annual report by using the words "expect", "would", "will", "potential", "plans", "prospects", "anticipates", "estimated", "believes", "intends", "aiming", "on track", or similar expressions negative of these expressions. Syngenta cannot guarantee that any of the events or trends anticipated by the forward-looking statements will actually occur. Important factors that could cause actual results to differ materially from the results anticipated in the forward-looking statements include, among other things:

•the risk that research and development will not yield new products that achieve commercial success;

- •the risk that Syngenta will not be able to obtain or maintain the necessary regulatory approvals for its business;
- the risk that economic and/or financial market weakness may have a material adverse effect on Syngenta's results and financial position;
- ·the risks associated with increasing competition in the industry;
- ·the risk that customers will be unable to pay their debts to Syngenta due to economic conditions;
- ·the risks associated with potential changes in policies of governments and international organizations;
- ·the risks associated with exposure to liabilities resulting from environmental and health and safety laws;
- ·the risk that important patents and other intellectual property rights may be challenged or used by other parties;
- •the risk that Syngenta may encounter problems when implementing significant organizational changes;
  - the risks associated with the proposal by China National Chemical Corporation to acquire Syngenta;
- ·the risk that the value of Syngenta's intangible assets may become impaired;

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·the risk of substantial product liability or personal injury claims;
the risk that consumer resistance to genetically modified crops and organisms or crop protection chemicals may negatively impact sales;
·the risks associated with climatic variations;
·the risks associated with exposure to fluctuations in foreign currency exchange rates or commodity prices;
·the risks associated with entering into single-source supply arrangements;
the risks associated with conducting operations in certain territories that have been identified by the US government as state sponsors of terrorism;
·the risks associated with natural disasters;
·the risk that Syngenta's effective tax rate may increase; and
·the risk of significant breaches of data security or disruptions of information technology systems.
Some of these factors are discussed in more detail herein, including under Item 3 "Key Information", Item 4 "Information on the Company", and Item 5 "Operating and Financial Review and Prospects". Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described herein as anticipated, believed, estimated or expected. Syngenta does not intend or assume any obligation to update these forward-looking statements.

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PART I
Item 1 — Identity of Directors, Senior Management and Advisers
Not applicable.
Item 2 — Offer Statistics and Expected Timetable
Not applicable.
Item 3 — Key Information
Selected Financial Data
Syngenta has prepared the consolidated financial statements in US dollars (\$) and in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board (IFRS). Financial figures are presented in millions of dollars (\$m) except where otherwise stated. The basis of preparation of the consolidated financial statements and the key accounting policies are discussed in Note 1 and in Notes 2 and 29, respectively, to the consolidated financial statements in Item 18.

The selected financial highlights information in accordance with IFRS presented below has been extracted from the consolidated financial statements of Syngenta. Investors should read the entire consolidated financial statements and not rely on the summarized information. The information includes the results of operations and the net assets of Agrosan S.A. from March 9, 2011, Pasteuria Bioscience Inc. from November 8, 2012, Sunfield Seeds Inc. from November 29, 2012, Devgen N.V. from December 12, 2012, MRI Seed Zambia Ltd and MRI Agro Zambia Ltd from October 31, 2013, Società Produttori Sementi S.p.A. from April 4, 2014, Lantmännen SW Seed Hadmersleben GmbH, Lantmännen SW Seeds GmbH and SW Winter Oilseed AB from July 21, 2014 and Land.db Enterprises Inc. from October 15, 2015. For further information about these acquisitions, see Note 3 to the consolidated financial statements in Item 18.

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# Financial highlights

	Year ended	d D	ecember 31	Ι,						
(\$m, except where otherwise stated)	2015		2014	-	2013		2012		2011	
Amounts in accordance with IFRS										
Income statement data:										
Sales	13,411		15,134		14,688		14,202		13,268	
Cost of goods sold	(7,042	)	(8,192	)	(7,986	)	(7,223	)	(6,790	)
Gross profit	6,369		6,942		6,702		6,979		6,478	
Operating expenses	(4,528	)	(4,837	)	(4,616	)	(4,723	)	(4,469	)
Operating income	1,841		2,105		2,086		2,256		2,009	
Income before taxes	1,592		1,895		1,934		2,116		1,859	
Net income	1,344		1,622		1,649		1,850		1,570	
Net income attributable to Syngenta AG	1 220		1.610		1 644		1 0 4 7		1.560	
shareholders	1,339		1,619		1,644		1,847		1,569	
Number of shares – basic	91,908,12	8.	91,674,12	7	91,952,222	2	91,644,19	0	91,892,27	5
Number of shares – diluted	92,206,53	5	92,007,08	9	92,459,300	5	92,132,92	2	92,383,61	1
Basic earnings per share (\$)	14.57		17.66		17.88		20.16		17.07	
Diluted earnings per share (\$)	14.52		17.60		17.78		20.05		16.98	
Cash dividends paid:										
Swiss franc ("CHF") per share	11.00		10.00		9.50		8.00		7.00	
\$ per share equivalent	11.73		11.25		10.01		8.82		7.64	
Cash flow data:										
Cash flow from operating activities	1,190		1,931		1,214		1,359		1,871	
Cash flow used for investing activities	(462	)	(729	)	(772	)	(1,218	)	(472	)
Cash flow used for financing activities	(1,188	)	(420	)	(1,114	)	(232	)	(1,684	)
Capital expenditure on tangible fixed assets	(453	)	(600	)	(625	)	(508	)	(479	)
Balance sheet data:										
Current assets less current liabilities	5,537		4,858		3,990		4,537		4,107	
Total assets	18,977		19,929		20,216		19,438		17,241	
Total non-current liabilities	(4,896	)	(4,317	)	(3,356	)	(4,226	)	(4,063	)
Total liabilities	(10,557	)	(11,024	)	(10,712	)	(10,653	)	(9,706	)
Share capital	(6	)	(6	)	(6	)	(6	)	(6	)
Total shareholders' equity	(8,401	)	(8,889	)	(9,491	)	(8,774	)	(7,526	)
Other supplementary income data:										
Diluted earnings per share from continuing										
operations, excluding restructuring and	17.78		19.42		19.30		22.03		19.03	
impairment (\$) <sup>1</sup>										

All activities were in respect of continuing operations.

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Notes

Diluted earnings per share from continuing operations, excluding restructuring and impairment is a non-GAAP measure.

A non-GAAP measure is a numerical measure of financial performance, financial position or cash flow that either:

includes, or is subject to adjustments that have the effect of including, amounts that are excluded in the most directly comparable measure calculated and presented under IFRS, or

excludes, or is subject to adjustments that have the effect of excluding, amounts that are included in the most directly comparable measure calculated and presented under IFRS.

Restructuring represents the effect on reported performance of initiating and enabling business changes that are considered major and that, in the opinion of management, will have a material effect on the nature and focus of Syngenta's operations, and therefore require separate disclosure to provide a more thorough understanding of business performance. Restructuring includes the incremental costs of closing, restructuring or relocating existing operations, and gains or losses from related asset disposals. Restructuring also includes the effects of analyzing and preparing for potential industry consolidation transactions as well as completing and integrating significant business combinations and divestments, including related transaction costs, gains and losses. Recurring costs of normal business operations and routine asset disposal gains and losses are excluded. Impairment includes impairment losses associated with major restructuring as well as impairment losses and reversals of impairment losses resulting from major changes in the markets in which a reported segment operates.

Further discussion on the reason for including disclosure of this and other non-GAAP measures is included in Appendix A at the end of the Operating and Financial Review and Prospects in Item 5.

Restructuring and impairment charges for 2015, 2014 and 2013 are analyzed in Note 6 to the consolidated financial statements in Item 18. Restructuring for 2012 and 2011 partly related to the program announced in 2011 to integrate global commercial operations for Crop Protection and Seeds in order to enable operational synergies from the commercial integration, additional cost savings from procurement and supply chain efficiencies and the presentation of an integrated offer to growers. Restructuring for 2012 and 2011 also related to the Operational Efficiency program announced in 2004 representing the costs of closure of certain manufacturing and research and development sites and refocusing of other continuing sites and also to the further phase of the Operational Efficiency program announced in 2007 to drive cost savings to offset increased expenditure in research and technology, marketing and product development in the growth areas of Seeds, professional products and emerging country markets.

A detailed reconciliation of net income and earnings per share before restructuring and impairment to net income and earnings per share according to IFRS is presented in Appendix A at the end of the Operating and Financial Review and Prospects in Item 5.

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Risk Factors

Syngenta's business, financial condition, results of operations or cash flows could suffer material adverse effects due to any of the following risks. Risks that are considered to be material are described below.

The resources Syngenta devotes to research and development may not result in commercially viable products

Syngenta's success depends in part on its ability to develop new products. Research and development in the agribusiness industry is expensive and prolonged, and entails considerable uncertainty. The process of developing a novel crop protection product, plant variety or trait typically takes around ten years or more from discovery through testing and registration to initial product launch; this period varies considerably from product to product and country to country. Because of the stringent product performance and safety criteria applied in product development, compounds or biotechnological products currently under development may neither survive the development process nor ultimately receive the requisite regulatory approvals needed to market such products. Even when such approvals are obtained, there can be no assurance that a new product will be commercially successful. In addition, research undertaken by competitors may lead to the launch of competing or improved products, which may affect sales of Syngenta's new products.

Syngenta may not be able to obtain or maintain the necessary regulatory approvals for some of its products, which could restrict its ability to sell those products in some markets

Syngenta's products must receive regulatory approval before they can be marketed, but Syngenta may not be able to obtain such approvals. In most markets, including the United States and the European Union, crop protection products must be registered after being tested for safety, efficacy and environmental impact. In most of Syngenta's principal markets, after a period of time, Syngenta must also re-register its crop protection products and show that they meet all current standards, which may have become more stringent since the prior registration. For seeds products, in the European Union, a new plant variety will be registered only after it has been shown that it is distinct, uniform, stable and better than existing varieties. Delays in obtaining regulatory approvals to import crops grown from seed containing certain traits may influence the rate of adoption of new genetically modified products in globally traded crops. For further information regarding the impact on Syngenta of delays in obtaining regulatory approvals, see Note 25 to the consolidated financial statements in Item 18.

Regulatory standards and trial procedures are continuously changing. Responding to these changes and meeting existing and new requirements may be costly and burdensome. In addition, changing regulatory standards may affect Syngenta's ability to maintain its products on the market.

Economic and/or financial market weakness may have a material adverse effect on Syngenta's results and financial position

Commodity crop prices have historically been volatile and downturns in prices can indirectly affect Syngenta's results by adversely affecting the income and financial position of Syngenta's customers and of the users of Syngenta's products. This may result in reduced sales, competitive price pressure in Syngenta's markets and in slower collection of accounts receivable. A low availability of credit may also limit the amount of business Syngenta's customers and suppliers can transact with Syngenta, including customers and suppliers in parts of the Eurozone, CIS and Latin America, which are experiencing economic problems. These occurrences may negatively impact Syngenta's business, results of operations or cash flows. Because of the high proportion of costs which are fixed in nature, Syngenta may not be able to compensate fully for these effects in the short term through measures such as reducing expenses.

While Syngenta views its current credit facilities and ability to access capital markets as adequate for its needs, difficulties in the banking sector in the future or illiquidity in the credit or capital markets may restrict Syngenta's ability to raise additional funds or increase the cost of such funding.

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Significant declines in asset prices or changes to long-term assumptions may cause funding levels in Syngenta's externally funded defined benefit pension plans to fall below stipulated regulatory levels. This may require Syngenta to pay additional contributions to restore funding to required levels. Please see Notes 2 and 22 to the consolidated financial statements in Item 18 for further information about Syngenta's defined benefit pension plans and the assumptions used to measure the related pension liabilities.

Syngenta participates in an industry that is highly competitive and undergoing consolidation, which could increase competitive pressures

Syngenta currently faces significant competition in the markets in which it operates. In most segments of the market, the number of products available to the grower is steadily increasing as new products are introduced, although this trend can be partly offset by the withdrawal of some products because they are not re-registered or are subject to voluntary range reduction programs. At the same time, certain products are coming off patent and are thus available to generic manufacturers for production. As a result, Syngenta anticipates that it will continue to face significant competitive challenges.

The agribusiness industry has a long history of consolidation, and further consolidation is ongoing and could continue to occur, which may intensify competition for Syngenta. Syngenta's competitive position could suffer to the extent it is not able to expand its own resources either through consolidations, acquisitions, joint ventures or partnerships. For information on a proposal by China National Chemical Corporation (ChemChina) to acquire 100 percent of the ordinary shares of Syngenta AG through a tender offer to shareholders, see History and Development of the Company in Item 4 and Note 30 to the consolidated financial statements in Item 18. In the future, Syngenta may not be able to find suitable companies to combine with, assets to purchase or joint venture or partnership opportunities to pursue. Even if Syngenta is able to identify desirable opportunities, it may not be able to enter into transactions on economically acceptable terms. If Syngenta does not successfully participate in continuing industry consolidation, its ability to compete successfully could be adversely affected and result in the loss of customers or an uncompetitive cost structure, which could adversely affect its sales and profitability.

Syngenta's customers may be unable to pay their debts to Syngenta due to economic conditions

Normally Syngenta delivers its products against future payment. Syngenta's credit terms vary according to local market practice, with credit terms for customers typically ranging from 30 to 180 days, except for customers in some emerging markets, where credit terms may range from cash on delivery to, in certain cases, 360 days. Syngenta's customers, particularly in developing economies and in economies experiencing an economic downturn, may be exposed to business, political or financial conditions impacting their ability to pay their debts, which could adversely affect Syngenta's results. While Syngenta uses barter and other security arrangements to reduce customer credit exposure in some emerging markets, it may still be exposed to risk of material losses from its credit exposure in these

markets. For further information regarding Syngenta's exposure to losses due to economic conditions in certain geographic regions and the measures Syngenta is taking to limit this exposure, see Item 5 – Operating and Financial Review and Prospects – Foreign operations and foreign currency transactions.

Changes in agricultural and certain other policies of governments and international organizations may prove unfavorable

In many markets there are various pressures to reduce subsidies to growers, which may inhibit the growth in these markets of products used in agriculture. In addition, changes in governmental policies that impact agriculture may similarly inhibit the growth of markets for products used in agriculture. However, it is difficult to predict accurately whether, and if so when, such changes will occur. Syngenta expects that the policies of governments and international organizations will continue to affect the income available to growers to purchase products used in agriculture and, accordingly, the operating results of the agribusiness industry.

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Syngenta is subject to stringent environmental, health and safety laws, regulations and standards, which can result in compliance costs and remediation efforts that may adversely affect its operational and financial position

Syngenta is subject to a broad range of increasingly stringent laws, regulations and standards in all of its operational jurisdictions. This results in significant compliance costs and can expose Syngenta to legal liability. These requirements are comprehensive and cover many activities including: air emissions, waste water discharges, the use and handling of hazardous materials, waste disposal practices, the clean-up of existing environmental contamination and the use of chemicals and genetically modified seeds by growers.

Environmental and health and safety laws, regulations and standards expose Syngenta to the risk of substantial costs and liabilities, including liabilities associated with assets that have been sold and activities that have been discontinued. In addition, many of Syngenta's manufacturing sites have a long history of industrial use. As is typical for businesses like Syngenta's, soil and groundwater contamination has occurred in the past at some sites, and may be identified at other sites in the future. Disposal of waste from its business at off-site locations also exposes Syngenta to potential remediation costs. Consistent with past practice, Syngenta is continuing to monitor, investigate and remediate soil and groundwater contamination at a number of these sites. Despite its efforts to comply with environmental laws, Syngenta may face remediation liabilities and legal proceedings concerning environmental matters.

Based on information presently available, Syngenta has budgeted expenditures for environmental improvement projects and has established provisions for known environmental remediation liabilities that are probable and capable of estimation. However, it cannot predict environmental matters with certainty, and the budgeted amounts and established provisions may not be adequate for all purposes. In addition, the development or discovery of new facts, events, circumstances, changes in law or conditions, including future decisions to close plants which may trigger remediation liabilities, could result in increased costs and liabilities or prevent or restrict some of Syngenta's operations.

Efforts by Syngenta to protect its intellectual property rights or defend against claims asserting that Syngenta has infringed the intellectual property rights of others may be unsuccessful

Scientific and technological innovation is critical to the long-term success of Syngenta's businesses. However, third parties may challenge the measures that Syngenta takes to protect processes, compounds, organisms and methods of use through patents and other intellectual property rights and, as a result, Syngenta's products may not always have the full benefit of intellectual property rights. In addition, while Syngenta takes steps to prevent unauthorized access to and distribution of its intellectual property, it cannot ensure that unauthorized parties do not obtain access to and use such property.

Third parties may also claim that Syngenta's products violate their intellectual property rights. Defending such claims, even those without merit, could be time-consuming and expensive. In addition, any such claim could also result in Syngenta having to enter into license arrangements, develop non-infringing products or engage in litigation that could be costly.

Legislation and jurisprudence on patent protection in major markets such as the United States and the European Union is evolving and changes in laws could affect Syngenta's ability to obtain or maintain patent protection for its products.

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Problems encountered by Syngenta when implementing significant organizational changes could adversely affect the future performance of the Company

Syngenta expects to continue to engage in restructuring activities to reduce operating costs, increase sales, or both. In addition, Syngenta may acquire or dispose of significant businesses, which would necessitate restructuring its operations. Syngenta may fail to adequately implement such restructuring activities in the manner contemplated, which could cause the restructuring activities to fail to achieve the desired results. Even if Syngenta does implement the restructuring activities in the manner contemplated, they may not produce the desired results. Accordingly, such restructuring activities may not reduce operating costs or increase sales, or may impact Syngenta's ability to attract and retain key talent. Failure to adequately implement significant restructuring activities could have a material adverse effect on Syngenta's business and consequently impact its financial position, results of operations and cash flows. For information on restructuring activities currently occurring at Syngenta, see Restructuring programs in Item 5 and Note 6 to the consolidated financial statements in Item 18.

The China National Chemical Corporation ("ChemChina") tender offer and related matters could cause disruptions to Syngenta's business or business relationships, or otherwise have an adverse impact on it

On February 2, 2016, Syngenta entered into a definitive agreement (the "Transaction Agreement") with ChemChina and China National Agrochemical Corporation, pursuant to which ChemChina agreed to cause a newly-incorporated company that is directly or indirectly controlled by ChemChina (the "Offeror") to submit a tender offer for all publicly held ordinary shares of Syngenta and American Depositary Shares ("ADSs") of Syngenta issued by the Bank of New York Mellon as depositary (the "ChemChina Tender Offer"). Under the terms of the Transaction Agreement, which was unanimously approved by Syngenta's Board of Directors, the Offeror will offer the shareholders of Syngenta \$465 per ordinary share, to be paid in cash, plus allow a special dividend of CHF 5 to be paid by Syngenta conditional upon and prior to closing. For more details on the ChemChina Tender Offer, please see "Item 4. Information on the Company—History and Development of the Company—Investments and Divestments" and "Item 5. Operating and Financial Review and Prospects—Trend and Outlook—ChemChina Tender Offer." The Transaction Agreement, the ChemChina Tender Offer, and related matters could cause disruptions to Syngenta's business or business relationships, or otherwise have an adverse impact on it. For example:

The attention of Syngenta's management may be directed to ChemChina Tender Offer-related considerations and may be diverted from day-to-day operations of Syngenta's business.

Syngenta's employees or potential employees may experience uncertainty about their future roles with Syngenta, which might adversely affect Syngenta's ability to retain and hire key personnel and other employees.

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Customers, suppliers or other parties with which Syngenta maintains business relationships may seek alternative relationships with third parties or seek to alter their business relationship with Syngenta.

Syngenta has incurred, and will likely continue to incur, costs, expenses and fees for professional services and other transaction-related costs.

Syngenta may be subject to legal or regulatory proceedings in connection with the ChemChina Tender Offer. Following the announcement of merger proposals, securities class action litigation is often brought against a –company and its board of directors. Similar lawsuits may be filed against Syngenta related to the ChemChina Tender Offer and, if successful, could prevent the ChemChina Tender Offer from being completed within the expected timeframe or at all.

Syngenta may experience a downgrade in its credit ratings as a result of the ChemChina Tender Offer, and any such downgrade could increase its costs of accessing funds in the debt and capital markets.

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Syngenta can provide no assurance that the ChemChina Tender Offer will be consummated or consummated in the timeframe or manner currently anticipated

There are a number of conditions to the ChemChina Tender Offer. In particular, the offer is contingent upon acceptance by shareholders and holders of ADSs owning in aggregate 67 percent of Syngenta's issued shares (including shares represented by ADSs) and the fulfilment of all necessary regulatory approvals, and Syngenta cannot provide assurance that either will occur. If the offer is not completed, the price of Syngenta's ordinary shares may change to the extent that the current market price of Syngenta's ordinary shares may reflect an assumption that the ChemChina Tender Offer will be consummated. Pending the closing of the ChemChina Tender Offer, the Transaction Agreement also restricts Syngenta from engaging in certain actions without ChemChina's consent, which could prevent Syngenta from pursuing opportunities that may arise prior to the closing of the ChemChina Tender Offer. Any delay in closing or a failure to close could have a negative impact on Syngenta's business and stock price as well as its relationships with its customers, vendors or employees, as well as a negative impact on Syngenta's ability to pursue alternative strategic transactions and/or its ability to implement alternative business plans. In addition, if the ChemChina Tender Offer is not successful or does not become unconditional under certain circumstances, including, among others, for a reason attributable to (i) a material breach by Syngenta of the Transaction Agreement, (ii) the withdrawal or modification by Syngenta's Board of Directors of its recommendation for the ChemChina Tender Offer contemplated in the Transaction Agreement, (iii) the entry by Syngenta into, or the recommendation by its Board of, an alternative transaction or (iv) the public announcement of an alternative transaction prior to the termination of the Transaction Agreement and Syngenta entering into a definitive agreement relating to such alternative transaction within 12 months of such termination and such alternative transaction being consummated. Syngenta may be required to pay a termination fee of \$1.5 billion.

Syngenta will likely incur additional debt in connection with the ChemChina Tender Offer

In connection with the ChemChina Tender Offer, Syngenta will likely incur additional indebtedness as part of ChemChina's financing of the acquisition, although the amount would be limited as described under "Item 5. Operating and Financial Review and Prospects—Trend and Outlook—ChemChina Tender Offer." Syngenta's ability to pay or to refinance such indebtedness will depend upon its future operating performance, which will be affected by general economic, financial, competitive, legislative, regulatory, business and other factors beyond its control. See "Item 5. Operating and Financial Review and Prospects—Liquidity and capital resources." A higher amount of indebtedness may impair Syngenta's ability to obtain additional financing and pursue business opportunities, increase Syngenta's vulnerability to general economic and industry conditions and place it at a competitive disadvantage to competitors who are not as highly leveraged.

In addition, certain of Syngenta's existing debt could be subject to repayment upon a change of control. If Syngenta is unable to refinance any such debt obligations, it could be in default under the terms of the agreements governing such indebtedness, and the holders of such indebtedness could elect to declare all the funds borrowed thereunder to be due and payable, together with accrued and unpaid interest.

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The value of Syngenta's intangible assets, including goodwill arising from acquisitions, may become impaired

Syngenta has a significant amount of intangible assets, including goodwill, on its consolidated balance sheet and, if it continues to acquire businesses in the future, may record significant additional intangible assets and goodwill. As described in Note 2 and 29 to the consolidated financial statements in Item 18, Syngenta regularly tests its intangible assets for impairment. Upon completing its testing for 2015, which included subjecting the assumptions used in the testing to a sensitivity analysis, Syngenta concluded that no material intangible assets are impaired at December 31, 2015. However, unforeseen events that occur in the future may result in actual future cash flows for Syngenta's businesses being different from those forecasted. As a consequence, Syngenta's intangible assets could become impaired and the resulting impairment losses could have a material adverse impact on Syngenta's financial position and results of operations.

Syngenta may be required to pay substantial damages as a result of product liability or personal injury claims for which insurance coverage is not available

Product liability and personal injury claims are a commercial risk for Syngenta, particularly as it is involved in the supply of chemical products which can be harmful to humans and the environment. Courts have levied substantial damages in the United States and elsewhere against a number of companies in the agribusiness industry in past years based upon claims for injuries allegedly caused by the use of their products. While a global insurance program is in place, a substantial product liability or personal injury claim that is not covered fully or at all by insurance could have a material adverse effect on Syngenta's operating results or financial condition. For further information regarding claims against Syngenta, see Note 25 to the consolidated financial statements in Item 18.

Consumer and government resistance to genetically modified organisms or crop protection chemicals may negatively affect Syngenta's public image and reduce sales

Syngenta is active in the field of genetically modified organisms in the seeds area and in biotechnology research and development in seeds and crop protection. However, the high public profile of biotechnology and lack of consumer acceptance of products to which Syngenta has devoted substantial resources could negatively affect its public image and results. The current resistance from consumer groups, particularly in Europe, to products based on genetically modified organisms, because of concerns over their effects on food safety and the environment, may spread to and influence the acceptance of products developed through biotechnology in other regions of the world, which could limit the commercial opportunities to exploit biotechnology.

Syngenta also produces and markets crop protection chemical products, some of which are facing increasing resistance from consumer groups because of concerns over their alleged effects on food safety and the environment. These consumer groups oftentimes attempt to influence governmental regulatory bodies to restrict the use of crop protection chemical products in their jurisdictions.

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Actions by consumer groups and others may disrupt research and development or production of genetically modified seeds or crop protection chemicals. In addition, some government authorities have enacted, and others in the future might enact, regulations regarding genetically modified organisms or crop protection chemicals, which may delay and limit or even prohibit the development and sale of such products.

Syngenta's results may be affected by climatic variations

The agribusiness industry is subject to seasonal and weather factors, which make its operations relatively unpredictable from period to period. The weather can affect the presence of disease and pests in the short term on a regional basis and, accordingly, can affect the demand for crop protection products and the mix of products used (positively or negatively). The weather also can affect the quality, volume and cost of seeds produced for sale. Seed yields can be higher or lower than planned and significantly higher yields could lead to Syngenta purchasing more seeds from contract growers than can be sold during the limited product life of the seeds, which could lead to inventory provisions and write-offs.

Currency exchange rate fluctuations or commodity price changes may adversely affect Syngenta's financial results

Syngenta reports its results in US dollars; however a substantial portion of sales and costs are denominated in currencies other than the US dollar. Fluctuations in the values of these currencies, especially in the US dollar against the Swiss franc, British pound, Euro and Brazilian real, can have a material impact on Syngenta's financial results. Also, an increasing amount of Syngenta's sales are in emerging markets, where currency exchange rates can be volatile and where hedging products are expensive or of limited availability. Fluctuations in these emerging market countries' exchange rates against the US dollar may adversely impact Syngenta's results through recognition of currency losses. In addition, several countries in the Eurozone have been experiencing financial difficulties. If a member state of the Eurozone were to decide to abandon the Euro as its lawful currency and introduce a new national currency, Syngenta could incur losses upon the lawful conversion to the new national currency of amounts receivable from customers in the member state that were originally denominated in Euros.

Syngenta is impacted indirectly, through its purchases of raw materials, by fluctuations in oil prices and directly by fluctuations in crop prices, where Syngenta purchases seeds from contract growers. Syngenta generally seeks to pass through in its sales prices the impact of increases in these commodity prices. However, the risk exists that future commodity price increases may not be able to be passed through in sales prices in this manner, which would reduce profit margin and could have a material adverse effect on Syngenta's results of operations, financial position and cash flows.

Syngenta maintains a single supplier for some raw materials, which may affect its ability to obtain sufficient amounts of those materials

While Syngenta generally maintains multiple sources of supply and obtains supplies of raw materials from a number of countries, there are a limited number of instances where Syngenta has entered into single-source supply contracts or where Syngenta routinely makes spot purchases from a single supplier in respect of active ingredients, intermediates or raw materials for certain important products. These instances occur where there is sufficient commercial benefit and security of supply can be assured, or where there is no viable alternative source of supply. Such single supplier arrangements accounted for approximately 19 percent of Syngenta's purchases in 2015 of active ingredients, intermediates and raw materials used in Crop Protection products, as determined by cost. Syngenta's ability to obtain sufficient amounts of those materials may be adversely affected by the unforeseen loss of a supplier or from a supplier's inability to meet its supply obligations. The percentage of single supplier arrangements could increase in the future if consolidation were to occur among multiple supply sources.

Syngenta also has contracts with a number of suppliers for services, including information technology, telecommunications and finance transaction processing. The sudden failure by one of these service providers to meet its obligations could prove disruptive to normal operations for a protracted period and adversely impact Syngenta's financial results. To mitigate this risk, Syngenta limits major contracts only to large global suppliers providing such services as part of their core business and having a significant portfolio of clients receiving similar services. Syngenta continuously monitors these companies both on their performance with Syngenta and their overall health and market performance.

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Syngenta conducts business in most countries of the world, including in certain high-risk countries, some of which have been identified by the US government as state sponsors of terrorism

Syngenta conducts business in most countries of the world, some of which are subject to a high level of political or economic instability that could impact Syngenta's ability to continue to operate there. Acts of terror or war may impede Syngenta's ability to operate in particular countries or regions, and may impede the flow of goods and services between countries. Sanctions could be imposed by the US or other nations on countries deemed to be in violation of international protocols, which could impact Syngenta's business operations in the sanctioned countries.

In addition, Syngenta has minor operations in Iran and the Sudan, which currently are identified by the US government as state sponsors of terrorism. Syngenta's operations in these countries are quantitatively immaterial, and it is Syngenta's belief that supporting agriculture in these countries is beneficial to their wider population, for whom food is often in short supply. However, certain investors may choose not to hold investments in companies that have operations of any size in these countries and several US states have enacted, and others may in the future enact, legislation requiring public entities with investments in companies with operations in these countries to disclose this fact or in some cases to divest these investments. Any such divestment is not currently expected to have a material impact on the value of Syngenta shares.

Natural disasters could adversely affect Syngenta's business

Natural disasters could affect Syngenta's or its suppliers' manufacturing and production facilities, which could affect Syngenta's costs or ability to meet supply requirements. Natural disasters could also affect Syngenta's customers, which could affect Syngenta's sales or its ability to collect receivables due from customers. Syngenta's corporate headquarters and other facilities are located near an earthquake fault line in Basel, Switzerland. Additionally, some of Syngenta's other significant facilities are located in areas where earthquakes, hurricanes or flooding are possible. The occurrence of a major earthquake, hurricane or flood at a Syngenta facility could result in loss of life, destruction of facilities and/or business interruption, which could have a material adverse effect on Syngenta's business. In addition, the occurrence of a pandemic in locations where Syngenta has significant operations or sales also could have a material adverse effect on Syngenta's results of operations, financial position and cash flows.

An increase in Syngenta's group tax rate could occur, which would adversely affect its financial results

The effective tax rate on Syngenta's earnings depends largely on the mix of business activities and consequent taxable profit in countries in which Syngenta operates. Syngenta benefits from the fact that a portion of its earnings is taxed at more favorable rates in some jurisdictions outside Switzerland. Future changes in the mix of business activities, or in

tax laws or their application with respect to matters such as transfer pricing, intra-group dividends, controlled companies or a restriction in tax relief allowed on the interest on intra-group debt, could increase Syngenta's effective tax rate and adversely affect its financial results. Governments following the release of OECD catalogue of recommended actions under the BEPS initiative (Base Erosion and Profit Shifting) are expected to increasingly require companies to provide greater transparency on the allocation of taxable profits, including the ongoing development of a new multilateral standard on automatic exchange of information. These developments may lead governments to restrict or disallow currently legitimate and accepted tax planning strategies and may result in an increase in Syngenta's effective tax rate. Syngenta has several open tax years in many jurisdictions, where tax calculations and payments may be subject to adjustment. These matters are discussed in Notes 2 and 25 to the consolidated financial statements in Item 18.

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Significant breaches of data security or disruptions of information technology systems could adversely affect Syngenta's business

Syngenta's business is increasingly dependent on critical, complex and interdependent information technology systems, including Internet-based systems, to support business processes as well as internal and external communications. The size and complexity of Syngenta's computer systems make them potentially vulnerable to data security breaches, whether by employees or others, which may result in unauthorized persons getting access to sensitive data. Such data security breaches could lead to the loss of trade secrets or other intellectual property. In addition, Syngenta's systems are potentially vulnerable to breakdown, malicious intrusion and computer viruses, which could disrupt production, order processing and shipping, cash receipts and disbursement processes, accounting and reporting processes, or other key business processes. Like most major corporations, Syngenta is the target of cyber-attacks from time to time. To date, Syngenta has not experienced any material financial impact, changes in the competitive environment or business operations that it attributes to these attacks.

Although Syngenta's management does not believe that Syngenta has experienced any material losses to date related to security breaches, including cybersecurity incidents, there can be no assurance that it will not suffer such losses in the future. Syngenta actively manages the risks within its control that could lead to business disruptions and security breaches. As these threats continue to evolve, particularly around cybersecurity, Syngenta may be required to expend significant resources to enhance its control environment, processes, practices and other protective measures. Despite these efforts, such events and a loss of trade secrets or other intellectual property, or systems-related disruption could have a material adverse effect on Syngenta's business, financial position, results of operations or cash flows.

Syngenta's share price may be volatile and subject to sudden and significant drops

The trading price of Syngenta shares and American Depositary Shares ("ADSs") has been, and could in the future continue to be, subject to significant fluctuations in response to variations in Syngenta's financial performance, regulatory and business conditions in its industry, general economic trends and other factors, including the ChemChina tender offer and related matters, some of which are unrelated to the operating performance of Syngenta.

If you hold Syngenta ADSs it may be more difficult for you to exercise your rights

The rights of holders of Syngenta ADSs are governed by the deposit agreement between Syngenta and The Bank of New York Mellon. These rights are different from those of holders of Syngenta shares in several respects, including the receipt of information, the receipt of dividends or other distributions, the exercise of voting rights and attendance at shareholders' meetings. As a result, it may be more difficult for a holder of Syngenta ADSs to exercise those rights.

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Item 4 — Information on the Company
History and Development of the Company
The Company
Syngenta AG, a Swiss "Aktiengesellschaft", was formed on November 12, 1999 under the laws of Switzerland. Syngenta's business operations were created in 2000 by Novartis and AstraZeneca through an agreement to spin off and merge the Novartis agribusiness and the AstraZeneca agrochemicals business to create a dedicated agribusiness company whose shares were then the subject of a global offering. Both the Novartis and AstraZeneca agribusinesses had existed since the 1930's through a variety of legacy companies.
Syngenta is domiciled in and governed by the laws of Switzerland. It has its registered office and principal business office at Schwarzwaldallee 215, 4058 Basel, Switzerland. The telephone number of Syngenta is +41-61-323-1111.
Syngenta became a publicly listed company in 2000. At December 31, 2015, the company was listed on the SIX Swiss Exchange under the symbol SYNN and the New York Stock Exchange under the symbol SYT.
Investments and Divestments
Information on acquisitions, divestments and other significant transactions completed by Syngenta during each of the years ended December 31, 2015, 2014 and 2013 is included in Item 5 and in Note 3 to the consolidated financial statements in Item 18.

On February 2, 2016, Syngenta entered into a definitive agreement (the "Transaction Agreement") with China National Chemical Corporation, a company organized under the laws of China, with its registered office in Beijing, People's Republic of China ("ChemChina"), and China National Agrochemical Corporation, pursuant to which ChemChina agreed to cause a newly-incorporated company that is directly or indirectly controlled by ChemChina (the "Offeror") to submit a tender offer for all publicly held ordinary shares of Syngenta and American Depositary Shares ("ADSs") of Syngenta issued by the Bank of New York Mellon as depositary (the "ChemChina Tender Offer"). Under the terms of the Transaction Agreement, which was unanimously approved by Syngenta's Board of Directors, the Offeror will offer

the shareholders of Syngenta \$465 per ordinary share plus allow a special dividend of CHF 5 to be paid by Syngenta conditional upon and prior to closing, in a transaction valued at over \$43 billion. There is committed financing for the ChemChina Tender Offer. The ChemChina Tender Offer is subject to certain conditions, including minimum acceptance of the offer by Syngenta's shareholders and holders of ADSs holding at least 67 percent of Syngenta's issued shares (including shares represented by ADSs), receipt of regulatory approvals and other customary closing conditions, and is expected to close by the end of the 2016. For more details on the proposal, please see "Item 5. Operating and Financial Review and Prospects—Trend and Outlook—ChemChina Tender Offer."

conditions, and is expected to close by the end of the 2016. For more details on the proposal, please see "Item 5. Operating and Financial Review and Prospects—Trend and Outlook—ChemChina Tender Offer."
BUSINESS OVERVIEW
Industry Overview
Syngenta is a world leading agribusiness operating in the crop protection, seeds and lawn and garden markets. Crop protection chemicals include herbicides, insecticides, fungicides and seed treatments to control weeds, insects and diseases in crops, and are essential inputs enabling growers around the world to improve agricultural productivity and food quality. In seeds, Syngenta operates in the high value commercial sectors of field crops (including corn, oilseeds cereals and sugar beet) and vegetables. The lawn and garden business provides professional growers and consumers with flowers, turf and landscape, and professional pest management products.
Syngenta's Business
Syngenta's business is divided into five reporting segments: the four geographic regions, Europe, Africa and Middle East, North America, Latin America and Asia Pacific, comprising the integrated Crop Protection and Seeds business; and the global Lawn and Garden business. These segments are described in greater detail below.
The following information, which appears in other parts of this Form 20-F, is incorporated herein by reference:
· Item 5 – Operating and Financial Review and Prospects – Results of operations, the tabular information regarding:
sales and operating income for the integrated Crop Protection and Seeds business and for each of the four geographic segments therein;
· sales by product line for the integrated Crop Protection and Seeds business; and

sales and operating income for the global Lawn and Garden business.

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Sales and operating income for the segments, as presented in Item 5 of this report, are seasonal. Results for the Europe, Africa and Middle East, North America and global Lawn and Garden segments are weighted towards the first half of the calendar year, which largely reflects the northern hemisphere planting and growing cycle. Results for the Latin America segment are weighted towards the second half of the calendar year, which largely reflects the southern hemisphere planting and growing cycle. Results for the Asia Pacific segment are more uniform throughout the year.

References in this document to Syngenta's competitive position, identified by terms such as "world-leading", "leader", "leading", "largest", "broadest", or similar expressions are based where possible on global agrochemical and biotechnology industry information provided by a third party or on information published by major competitors and are supplemented by Syngenta internal estimates.

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#### **Integrated Business**

Based on the combined strength of its Crop Protection and Seeds businesses, Syngenta regards itself as uniquely positioned to address the increasingly complex challenges facing farmers, through the development of fully integrated offers on a crop basis. The integrated business is structured into 18 territories grouped under the four geographic regions (Europe, Africa and Middle East, North America, Latin America and Asia Pacific). Under this integrated business, Syngenta is developing an expanded crop-based product pipeline and increasing its reach into new markets with new products, solutions and local go-to-market strategies for its eight strategic global crops. These eight global crops comprise cereals (wheat, barley), corn, diverse field crops (sunflower, oilseed rape, sugar beet), rice, soybean, specialty crops (e.g. fruits, trees, nuts, vines, potatoes, cotton, plantation crops), sugar cane and vegetables. Dedicated crop teams work alongside territory and regional management to develop and maximize integrated product and service offers.

Estimated sales by crop for the years ended December 31, 2015, 2014 and 2013 are as follows:

		Change			Change		
Estimated sales (\$m)	2015	Actual %	CER %1	2014	Actual %	CER %	2013
Cereals	1,686	-13	3	1,943	10	12	1,772
Corn	3,161	-6	4	3,355	-6	-4	3,560
Field crops	1,105	-18	10	1,351	-5	1	1,428
Rice	588	-7	-2	635	-3	2	653
Soybean	2,515	-17	-9	3,017	17	18	2,577
Specialty crops	1,882	-11	1	2,110	5	7	2,004
Sugar cane	271	-1	10	275	-5	-2	290
Vegetables	1,540	-12	-1	1,743	2	5	1,701
Other <sup>2</sup>	15	n/a	n/a	12	n/a	n/a	12
Total	12,763	3-12	-	14,44	13	6	13,997

Precise sales by crop cannot be determined because many of Syngenta's Crop Protection products can be used on multiple crops.

1 Change percentage at constant exchange rates ("CER"). For the definition of constant exchange rates, see Appendix A in Item 5.

2 Sales of Materials Protection products.

**Description of Products** 

**Integrated Business** 

The development of integrated offers involves combining Syngenta's Crop Protection and Seeds products, and in some instances combining Syngenta's products with third party products and services, to provide growers with innovative ways to improve crop yields and quality. These offers, which are targeted at growers in emerging as well as developed markets, include integrated crop management programs using existing and newly developed crop protection solutions, genetics, innovative genetically modified and native trait packages, and growing protocols.

**Crop Protection** 

Syngenta is active in herbicides, especially for corn, cereals, soybean and rice; fungicides mainly for corn, cereals, fruits, grapes, rice, soybean and vegetables; insecticides for fruits, vegetables and field crops; and seed care, primarily in corn, soybean, cereals, oilseeds and cotton. Herbicides are products that eliminate, prevent the growth of, or reduce weeds that compete with the crop for nutrients, light and water. Herbicides can be subdivided into (i) selective herbicides, which are crop-specific and control weeds without harming the crop and (ii) non-selective herbicides, which reduce or halt the growth of all vegetation with which they come into contact. Fungicides are products that prevent and cure fungal plant diseases that affect crop yield and quality. Insecticides are products that control chewing pests such as caterpillars and sucking pests such as aphids, which reduce crop yields and quality. Seed care products are insecticides, nematicides and fungicides used to protect growth during the early stages of a crop's life. To complement traditional Crop Protection chemistry, Syngenta is also investing in abiotic stress management and biocontrol solutions.

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Syngenta has a broad range of Crop Protection products, making it number one or two in all of its target sectors, underpinned by strong worldwide market coverage. Over 75 percent of Syngenta's annual sales of Crop Protection products come from products marketed in all four regions.
Seeds
Syngenta produces and markets seeds and plants that have been developed using advanced genetics and related technologies. Syngenta sells seed products in all geographic territories.
Syngenta's seed portfolio is one of the broadest in the industry, offering over 200 product lines and over 5,000 varietie of Syngenta's own proprietary genetics. Syngenta divides its seed products into field crops, such as corn, soybean, rice cereals, oilseeds and sugar beet, and vegetables. Syngenta has a significant market share in vegetables, corn, soybean, cereals, sugar beet and sunflower. Seed products are derived from a germplasm pool and trait portfolio and developed further utilizing sophisticated plant-breeding methods. In addition to income from sales of branded seeds, Syngenta generates income from licensing arrangements.
Key Marketed Products and Services
Integrated Business
NUCOFFEE® is Syngenta's innovative business model operating in Brazil that brings together growers, cooperatives and roasters. Built around Syngenta's crop protection, quality and barter programs, the NUCOFFEE® platform helps Brazilian coffee farmers increase their profitability, with higher yields and better quality for their coffee crop.
Crop Protection
Selective herbicides
Syngenta has a broad range of Selective herbicides that control grasses and broad-leaved weeds and are applicable to

most crops, with a special emphasis on corn, soybean and cereals.

Atrazine (AATREX®/GESAPRIM®) acts mainly against broad-leaved weeds. Although Atrazine was introduced in 1957 and has been off patent for a number of years, it remains an important product for broad-leaved weed control in corn, sorghum and sugarcane. Atrazine is marketed in North America, Latin America, Asia Pacific, Africa and the Middle East.

**Clodinafop** (TOPIK<sup>TM</sup>/HORIZON<sup>TM</sup>/CEL/DOSCOVER®) is a grass herbicide which provides a broad spectrum of annual grass control in wheat and barley. To further increase crop safety in cereals, the active substance Clodinafop is mixed with the safener Cloquintocet, which selectively enhances the degradation of Clodinafop in cereals but not in grass weeds. Clodinafop is marketed in all regions.

*Fluazifop-P-Butyl* (FUSILADE®) is one of the leading products for post-emergence control of grass weeds. It is registered for use in over 60 crops with major outlets in cotton and soybeans in the United States and Brazil; and sugar beet and oilseed rape in Europe. The selective action of FUSILADE® allows growers to target applications when grass weeds appear, allowing cost-effective weed control. Fluazifop-P-Butyl is marketed in all regions.

**Fomesafen** (FLEX®) provides pre- and post-emergence control and quick eradication of a wide range of broadleaf weeds to protect yields in soybeans, dry beans and other legume crops and cotton. Fomesafen is marketed in all regions.

*Mesotrione* (CALLISTO® family) is a pre- and post-emergent herbicide with a very broad spectrum against key broad-leaved weeds in corn and sugar cane. Mesotrione is marketed in all regions.

**Pinoxaden** (AXIAL®) is an innovative post-emergent selective grassweed herbicide, for use in both wheat and barley. It offers the grower efficacy, selectivity and flexibility. Pinoxaden is marketed in all regions.

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*S-metolachlor* (DUAL GOLD®/DUAL MAGNUM®) is a lower dose rate replacement for metolachlor for grass weeds control. Its use has not only reduced the amount of product sprayed on fields, thus responding to the pesticide reduction goals established by many countries, but has also decreased the energy required to produce, transport and store the product, as well as decreasing total packaging material. S-metolachlor is well tolerated and can be safely used on more than 70 different crops. It manages difficult to control glyphosate-resistant weeds and is a key component in Syngenta's Early Season Weed Management portfolio. S-metolachlor is marketed in all regions.

#### Non-selective herbicides

Syngenta has a series of Non-selective herbicides, which reduce or halt the growth of all vegetation with which they come in contact.

**Diquat** (REGLONE®), a non-selective contact herbicide, is mainly used as a desiccant to allow easier harvesting and reduce drying costs. Diquat is marketed in all regions.

*Glyphosate* (TOUCHDOWN® /TRAXION® /ZAPP®), a non-selective herbicide with systemic activity, is Syngenta's offer in the market for glyphosate-based products. Glyphosate is registered in over 90 countries, including for use on herbicide tolerant corn and soybeans in the United States and Brazil. Glyphosate is marketed in all regions.

**Paraquat** (GRAMOXONE®), first introduced in 1962, is one of the world's largest selling non-selective contact herbicides and a vital tool to manage increasing weed resistance challenges worldwide. It has been a key product in the development of minimum tillage cropping systems, the adoption of which continues to increase because of benefits such as the reduction of soil erosion. Paraquat is marketed in North America, Latin America, Asia Pacific, Africa and the Middle East.

#### **Fungicides**

Syngenta has a broad range of Fungicides that prevent and cure fungal plant diseases that affect crop yield and quality.

·Azoxystrobin (AMISTAR® Technology), a strobilurin fungicide, is the world's best-selling proprietary fungicide and Syngenta's largest selling product. It is registered for use in approximately 100 countries and for approximately 120 crops. In Brazil, it is used to control Asian rust in soybeans in a mixture branded as PRIORI ®Xtra. Mixtures of AMISTAR® Technology with triazoles (cyproconazole, difenoconazole or propiconazole) or chlorothalonil have been developed to combat diseases in cereal crops, primarily in Europe. Mixtures are also used in corn (QUILT®), rice, vegetables and specialty crops (AMISTAR® Top, AMISTAR® Xtra). AMISTAR® Technology is marketed in

all regions.

*Chlorothalonil* (BRAVO®) is a world-leading fungicide. With its multi-site mode of action, it is a good partner for most fungicides such as AMISTAR® Technology or isopyrazam, mefenoxam, and mandipropamid and is increasingly being integrated into disease control programs using multiple products. Chlorothalonil is used in all major crops and in lawn and garden, and is marketed in all regions.

*Cyproconazole* (ALTO®) is a systemic fungicide with broad-spectrum activity, especially against rust and leaf spot in ·cereals, soybean, sugar beet and coffee. Syngenta mainly sells cyproconazole in mixtures with other fungicides principally in Latin America and Europe, Africa and Middle East. Cyproconazole is marketed in all regions.

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Cyprodinil (UNIX®/STEREO®¹/SWITCH®/CHORUS®) is a powerful fungicide for use on cereals. It is used to control eyespot, powdery mildew and leaf spot diseases. Because it has a specific mode of action, it is a particularly effective solution where resistance to other fungicides has developed. CHORUS® and SWITCH® are cyprodinil-based formulations which are used on pome fruit such as apples and pears or on grapes and vegetables. Cyprodinil is marketed in all regions.

*Difenoconazole* (SCORE®, ARMURE®, TASPA®) is a systemic triazole fungicide with broad-spectrum activity against plant diseases, particularly leaf spots of pome fruit, vegetables, soybeans, rice and plantation crops. Long-lasting protective and strong curative activity make it well suited for threshold based plant disease management whereby the plant is treated only when the development of the disease has passed a certain point. Target crop pathogens include *Cercospora, Alternaria, Septoria* and other leaf spots, powdery mildews and scabs as well as seed-borne diseases. Difenoconazole is marketed in all regions.

*Fluazinam*<sup>2</sup> (SHIRLAN®) is a fungicide for control of potato blight. Fluazinam is marketed in Europe, Africa and Middle East, North America and Latin America.

*Mandipropamid* (REVUS®) is currently registered in almost 100 countries and is used on fruits and vegetables to combat late blight and downy mildew. Mandipropamid is marketed in all regions.

*MEFENOXAM*<sup>TM3</sup> (RIDOMIL GOLD®/FOLIO GOLD®/SUBDUE®) is used for the control of air-borne, seed- and ·soil-borne diseases caused by fungi such as pythium, damping-off, late blight, pink rot and downy mildews. It is used on a wide variety of crops, including field, vegetable, oil and fiber crops. MEFENOXAM<sup>TM</sup> is marketed in all regions.

*Propiconazole*<sup>4</sup> (TILT®/BANNER®) is a foliar fungicide for broad spectrum disease control in cereals, bananas, rice, corn, peanuts, sugar beet, turf and other food and non-food crops. Propiconazole provides a strong curative and protective activity against a wide range of plant pathogens including powdery mildews, rusts and other leaf spot pathogens. Propiconazole is marketed in all regions.

*Trinexapac-ethyl* (MODDUS®) is a plant growth regulator. In cereals it reduces growth so that treated plants stay shorter and have stronger stems, enhancing their ability to withstand storms and remain upright until harvest. In sugar cane it is a yield enhancer and harvest management tool. Trinexapac-ethyl is marketed in all regions.

#### Insecticides

Syngenta has a broad range of Insecticides that control chewing pests such as caterpillars and sucking pests such as aphids, which reduce crop yields and quality. These products are applied either to the soil or sprayed onto the foliage.

**Abamectin** (VERTIMEC® or AGRIMEC®/AGRI-MEK®) is produced by fermentation. This potent insecticide and acaricide is used at very low dose rates against mites, leafminers, nematodes and some other insects in fruits, vegetables, cotton and ornamentals. Abamectin rapidly penetrates the plants and is a useful product for integrated pest management. Abamectin is marketed in all regions.

<sup>&</sup>lt;sup>1</sup> Pursuant to commitments given to the European Commission, Syngenta granted an exclusive right to Makhteshim Agan Industries Ltd. (now Adama Ltd.) to use and sell STEREO® formulation for use on cereals for the duration of its registration in Denmark, Finland and Sweden.

<sup>&</sup>lt;sup>2</sup> Fluazinam is distributed, but not manufactured, by Syngenta.

<sup>&</sup>lt;sup>3</sup> Mefenoxam is a generic expression in the United States whereas in other countries MEFENOXAM<sup>TM</sup> is a trademark of Syngenta Participations AG to denominate the active ingredient Metalaxyl-M (ISO name).

<sup>&</sup>lt;sup>4</sup> Pursuant to commitments given to the European Commission, Syngenta granted an exclusive right to Makhteshim Agan Industries Ltd. (now Adama Ltd.) to use and sell its TILT® 250EC and TILT® 6.25GL formulations for use on cereals in Denmark, Finland and Sweden for the duration of their registrations.

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Chlorantraniliprole mixtures (DURIVO®/AMPLIGO®/VIRTAKO®/VOLIAM FLEXI®/VOLIAM TARGO®). Chlorantraniliprole, licensed from E.I. DuPont de Nemours and Co ("DuPont") for sale in mixtures with Syngenta active ingredients, is a chemical of the diamide class characterized by a unique mode of action and outstanding activity on all major lepidoptera pests in soybean, rice, vegetables, corn, fruits and cotton. Chlorantraniliprole mixtures are marketed in all regions.

*Emamectin Benzoate* (PROCLAIM® or AFFIRM®) provides control of caterpillars on vegetables, cotton and fruits, combining a unique mode of action with extremely low use rates and is compatible with integrated pest management. It has been launched in major markets such as Japan, Korea, the United States, Mexico, Australia and India and is under registration in a number of other countries. Emamectin Benzoate is marketed in all regions.

**Lambda-cyhalothrin** (KARATE®/ICON®) is one of the world's most potent pyrethroids and is used on a wide range of crops to control chewing and sucking insects. Lambda-cyhalothrin is marketed in all regions.

*Lufenuron* (MATCH<sup>®</sup>) is an insect growth regulator that controls caterpillars in corn, potatoes, cotton, vegetables ∙and fruits. It is a leading insecticide in terms of sales in its chemical class. Lufenuron is marketed in Europe, Africa and Middle East, Latin America and Asia Pacific.

**Thiamethoxam** (ACTARA®/ENGEO®) is highly active at low use rates against a broad spectrum of soil and sucking insects. It is highly systemic and well suited for application as a foliar spray, drench or drip irrigation. It is fast acting, works equally well under dry and wet conditions and has a favorable safety and environmental profile. It has been developed for a broad range of crops, including vegetables, potatoes, cotton, soybeans, rice, pome fruits and stone fruits (such as peaches or plums). Thiamethoxam is marketed in all regions<sup>5</sup>.

**Tefluthrin** (FORCE®) is a premium corn granular and liquid insecticide that provides broad-spectrum soil insect control and residue activity. Tefluthrin is marketed in all regions.

#### Seedcare

The use of Seedcare products is an effective, efficient, and targeted method to protect seedlings and young plants against diseases, insects and nematodes during the period when they are most vulnerable. Syngenta's broad range of fungicides, insecticides and nematicides allows it to provide a modern portfolio of safe and highly effective products. As seeds increase in value, seed protection becomes more important.

Abamectin (AVICTA®) is a seed treatment for the control of nematodes in cotton, corn and soybeans. Abamectin is currently marketed in North America, Latin America and South Africa.

**Difenoconazole** (DIVIDEND®) is active against a broad range of diseases including bunts, smut and damping-off on cereals and oilseed rape/canola. This product is highly systemic and provides a long lasting, high-level effect. It is safe for seeds and seedlings and provides for a faster germination than other products in the market. Difenoconazole is marketed in all regions.

Fludioxonil (MAXIM® or CELEST®) is a contact fungicide with residual activity. Derived from a natural compound, fludioxonil combines excellent crop tolerance with low use rates. Its spectrum of targets includes seed and soil-borne diseases like damping-off, bunt, smut, fusarium, snow mold and leaf stripe on cereals. Used alone or in mixtures with other active substances, it is also effective on corn, soybean, rice, cotton, potatoes, vegetables and peas. Fludioxonil is marketed in all regions.

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<sup>&</sup>lt;sup>5</sup> The European Commission suspended effective December 1, 2013 the use of neonicotinoid insecticides on bee attractive crops before and during flowering due to the alleged impact of these products on bee populations. The suspension impacts sales of Syngenta's thiamethoxam products in European Union markets, primarily the seed treatment CRUISER® in corn, sunflower and oilseed rape crops. Directly impacted annual sales of Syngenta's thiamethoxam products in European Union markets at the time use of the product was suspended were less than \$100 million. On August 27, 2013, Syngenta submitted a legal challenge to the European Commission's decision to suspend the use of thiamethoxam on bee attractive crops. Thiamethoxam continues to be used in European Union markets as CRUISER® in sugar beet, a non-bee attractive crop, and in potatoes and vegetable crops in glass houses, and as ACTARA®/ENGEO® on all crops after flowering.

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*MEFENOXAM*<sup>TM3</sup> (APRON® XL) is used for the control of seed and soil-borne diseases caused by fungi such as pythium, phytophtora and downy mildews. It is used worldwide on a wide variety of crops, including field crops, vegetables, oil and fiber crops. MEFENOXAM<sup>TM</sup> is also used as a mixing partner for seed protection at low use rates. MEFENOXAM<sup>TM</sup> is marketed in all regions.

**Thiamethoxam** (CRUISER®) is an insecticide with systemic activity in a wide range of crops including cereals, cotton, soybeans, canola, sugar beet, corn, sunflower and rice. Its properties are such that it provides a consistent performance under a wide range of growing conditions. Thiamethoxam acts against a wide range of early season sucking and chewing, leaf feeding and soil-dwelling insects such as aphids, thrips, jassids, wireworms, flea beetles and leafminers. Thiamethoxam is marketed in all regions<sup>5</sup>.

Seeds

#### Field crops

*Cereals* (NK®, AGRIPRO® COKER™, RESOURCE SEEDS INC., C.C. BENOIST™) wheat and barley varieties combine high yield, superior disease resistance and agronomic characteristics coupled with excellent grain quality for the milling, malting and animal feed industries. Cereals are sold mainly in Europe and North America.

Corn (GOLDEN HARVEST<sup>TM</sup>, N<sup>®</sup>KSPS<sup>®</sup>, INNOTECH<sup>TM</sup>, CATALY®Tand PHOENIX®) hybrids are sold by Syngenta via established distribution channels covering a full range of countries and maturities. In addition, hybrids and inbred lines are licensed to other seed companies in the US via Greenleaf Genetics LLC. Syngenta hybrids are characterized by their high yield potential, stability of performance, uniformity and vigor. In approved markets, many of Syngenta's elite hybrids are offered as stacked trait versions that include AGRISURE VIPTERA®, and AGRISURE DURACADE®, which provide built-in insect protection against corn borers and corn rootworms and tolerance to glyphosate herbicide. Syngenta offers four specific trait stacks that carry the title E-Z REFUGE® and are integrated refuge products. The products are more convenient for growers than planting a separate refuge and also improve the durability of the insect control traits by facilitating refuge compliance. Syngenta also offers seeds with AGRISURE ARTESIAN® technology, which improves the corn plant's water use efficiency. Competitive hybrids developed through marker assisted breeding are sold for silage and grain markets. Different hybrids of corn seeds are marketed in all regions.

Oilseeds (SYNGENTA®, NK®, SPS®) include sunflower and oilseed rape. Syngenta sunflower seed hybrids are bred for high yield as well as heat stress tolerance, disease resistance, broomrape tolerance, herbicide tolerance and oil quality. Syngenta's oilseed varieties combine high yield genetic superiority and herbicide tolerance, which give growers flexibility in their weed control. The company's oilseed rape varieties and hybrids offer good oil production and plant health. Sunflower seeds are sold primarily in Russia, Ukraine, Southeast Europe and Argentina while the major markets for oilseed rape are Europe and Canada.

*Rice* (FRONTLINE®) In 2012, Syngenta acquired Devgen, which significantly broadened its rice portfolio with the addition of the FRONTLINE® brand. Under Rice Seeds global brand FRONTLINE®, new hybrids are introduced with improved yield, seed productivity, grain quality, and tolerance to biotic and abiotic stress factors. Rice is marketed in Asia Pacific.

**Soybean** (SYNGENTA®, NK®, SPS®) varieties combine high yield genetic superiority, insect control<sup>6</sup> and herbicide tolerance<sup>6</sup>, which give growers flexibility in their insect and weed control. The major markets for soybean are in North America and Latin America. Syngenta also licenses varieties of soybean to other seed companies in the USA via Greenleaf Genetics LLC.

<sup>&</sup>lt;sup>6</sup> Genuity<sup>®</sup> Roundup Ready<sup>®</sup> and Genuity<sup>®</sup> Roundup Ready 2 Yield<sup>®</sup> herbicide tolerance traits are licensed from Monsanto Technology LLC. Genuity<sup>®</sup> Roundup Ready<sup>®</sup> and Roundup Ready 2 Yield<sup>®</sup> are registered trademarks of Monsanto Technology LLC. Intacta RR2 PRO™ is licensed from Monsanto Technology LLC.

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Sugar beet (SYNGENTA®, HILLESHÖG®, MARIBO®) seeds are bred to develop high yielding varieties with good stress and disease tolerance, high sugar content, low soil tare and improved juice purity. The major markets for sugar beet seeds are in Europe and North America.

**Sugar beet** varieties with the Genuity® Roundup Ready®6 herbicide tolerance trait feature high sugar content and ·multiple disease resistances across a number of geographies. These sugar beet seeds are marketed in the USA and Canada.

#### <u>Vegetables</u>

Vegetables brands include ROGERS®, S&G®, ZERAIM GEDERA® and DAEHNFELDT®. Syngenta offers a full range of vegetable seeds, including beans, broccoli, cabbage, carrots, cauliflower, cucumbers, lettuce, melons, onions, okra, peas, peppers, spinach, squash, sweet corn, tomatoes and watermelons. Syngenta breeds varieties with high-yield potential that can resist and tolerate pests and diseases. Syngenta develops genetics that address the needs of consumers as well as processors and commercial fresh market growers. In 2013 Syngenta acquired the breeding programs for cucumber, tomato and pepper for greenhouse production from MayAgro Seeds, broadening its offer in Turkey and the Middle East. Different varieties of vegetable seeds are marketed in all regions.

Recently Launched Products and Services (last 3 years)

**Integrated Business** 

GROMORE™ is a holistic crop protection and agronomy protocol with a targeted go-to-market approach that provides guidance to smallholder growers for crop protection, seed, nutrients and water optimization which helps them overcome challenges resulting from water scarcity, labor shortages and productivity. Growers can realize yield gains by being better able to choose the right input at the right dose and at the right time for each of the four key growth phases of the crop.

*PLENE*<sup>®</sup> is a revolutionary solution for sugar cane in Brazil, combining chemistry, plant genetics and mechanical technology to provide an integrated cane planting solution. PLENE<sup>®</sup> EVOLVE<sup>TM</sup> is a young plant that can be mechanically transplanted and accelerates variety renewal through elite genetics. It can be multiplied directly by the customer resulting in increased genetic purity and high productivity. PLENE<sup>®</sup> PB is a pre-germinated seed cane with a simple planting process and offering a superior multiplication rate together with yield, vigor and quality. In 2015, Syngenta significantly increased production capacity for PLENE PB.

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*HYVIDO*<sup>®</sup> is a hybrid barley that offers increased yield, consistency of yield and improved resistance to abiotic stresses. In addition, Syngenta currently offers growers who purchase HYVIDO<sup>®</sup> an optional cash-back yield guarantee. It guarantees that farmers who subscribe to the offer and use the agronomy protocol (which includes seeds and Syngenta Crop Protection products to maximize yield) will be reimbursed for part of the cost of the program if the yield from reference fields of HYVIDO<sup>®</sup> is not higher by a specified amount than the yield from conventional fields.

*INTEGRARE*<sup>TM</sup> is Syngenta's High Yield Soybean solution tailored for Brazilian growers to unlock the full yield potential of their crop and increase the confidence on their return on investment. It is a complete offer combining a best in class portfolio (seeds, Seedcare, crop protection chemicals) and customized protocols together with agronomic (e.g. plant nutrition advice) and financial services (e.g. risk management).

*Fruit Quality Contract* enhances growers' market access while reducing complexity and risk through a tailored Crop Protection program with cashback assurance. It enables growers to comply with export and food chain requirements.

*New Customer* in Cereals offers food companies and growers the ability to increase local sourcing of high quality grains in emerging markets. Current relationships include AB InBev in beer and Baronia in pasta.

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'Water+' Intelligent Irrigation Platform is designed to deliver improved revenue potential by conveniently integrating crop inputs, agronomic expertise and technology.

**Ethanol Grain Quality Solution** is a production system that improves corn quality delivered to ethanol plants, resulting in higher ethanol output.

**Crop Protection** 

#### **Fungicides**

*Isopyrazam* (BONTIMA®, SEGURIS®, REFLECT®) is a new broad-spectrum fungicide for cereals, banana, pome fruit, oilseed rape and vegetables which complements Syngenta's existing product range and provides additional resistance management opportunities. Isopyrazam is marketed in Europe, Africa and Middle East, Latin America and Asia Pacific.

SOLATENOL<sup>TM</sup> (ELATUS<sup>TM</sup>, APROVIA<sup>TM</sup>) belongs to the carboxamide chemistry with SDHI mode of action and is combined with AMISTAR® Technology to produce ELATUS<sup>TM</sup>, a foliar fungicide for use on soybean Asian Rust disease, which is the largest disease problem faced by farmers in Latin America. ELATUS<sup>TM</sup> was introduced in Paraguay and Bolivia in 2013 and Brazil in 2014. It was also launched in Argentina in 2015 on peanuts. SOLATENOL<sup>TM</sup> received registration from the US Environmental Protection Agency in 2015. First significant sales in the USA are expected in the 2016 season. SOLATENOL<sup>TM</sup> received registration for use in the European Union in January 2016. First sales in France are expected in the 2016 growing season.

In addition, Syngenta has recently introduced a range of *biologicals* into its portfolio in different countries including the brands QUANTIS, ISABION®, TAEGRO®7, SAKALIA®, TIMOREX®8 GOLD and REMEDIER®9.

#### Selective herbicides

**Bicyclopyrone** (ACURON®) is the leading residual corn herbicide which provides broad spectrum broadleaf and annual grass weeds control. Bicyclopyrone was developed to complement mesotrione. When combined with atrazine and S-metolachlor in ACURON®, which was launched in the US corn market in 2015, it delivers multi-targeted control of the most problematic broadleaf and grass weeds with built-in resistance management technology with 4 active ingredients and 3 modes of action.

#### Seedcare

*Pasteuria spp* (CLARIVA®) is an endospore-forming bacterium that is a natural control for nematodes offering ·immediate infection, which stops them from feeding and reproducing and ultimately kills them. CLARIVA® is currently registered for sale and use in the USA for soybeans.

Cyantraniliprole (FORTENZA®) Syngenta acquired from DuPont in 2008 the rights to access cyantraniliprole, a second generation diamide, for use in different agricultural fields. This new seed treatment insecticide has a different mode of action acting as both a chemical and insect resistance management tool. It delivers best-in-class early season insect protection both above and below ground and will be available for a wide range of crops including corn, soybeans, oilseed rape/canola, sunflower and rice. FORTENZA® was granted registration in several countries including Canada and Argentina in 2013, China in 2014 and Mexico in 2015. Future seed treatment registrations are planned for Brazil and other Latin American countries, US, other Asian countries, Europe and Africa. FORTENZA® has been commercially launched in Argentina, China and Canada.

<b>Sedaxane</b> (VIBRANCE®) is a proprietary fungicide based on the SDHI mode of action combining excellent control
against a broad range of seed- and soil-borne diseases with ideal mobility in the soil. This gives long-lasting
protection for the entire root system, resulting in higher crop productivity in a broad range of crops including cereals,
soybean, oilseed rape/canola, corn, rice, sugar beet, sunflower, cotton and potatoes. Sedaxane received broad
registration in 2014 and is marketed in all regions.

<sup>&</sup>lt;sup>7</sup> TAEGRO<sup>®</sup> is licensed from, and is a registered trademark of Novozymes A/S.

<sup>&</sup>lt;sup>8</sup> TIMOREX® GOLD is licensed from, and is a registered trademark of BIOMORE ISRAEL LTD.

<sup>&</sup>lt;sup>9</sup> REMEDIER® is licensed from, and is a registered trademark of ISAGRO S.p.A.

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Seeds
Field crops
AGRISURE VIPTERA® stacked trait hybrids continue to expand in Brazil, Argentina and Colombia. Through ·Syngenta's enhanced corn breeding and trait conversion capabilities, 14 new genetic chassis and 38 new <i>corn</i> hybrids were launched in the branded North America portfolio in 2015.
In <i>corn</i> , 15 of the 38 new hybrids in North America will be sold in the EZ-Refuge® format, combining grower convenience and compliance with insect resistance management guidelines.
In <i>corn</i> , growers planted Syngenta genetically modified hybrids in Vietnam for the first time in 2015, consisting of GM technology that includes herbicide and insect resistance.
In <i>corn</i> , ARTESIAN <sup>TM</sup> technology continues to expand across North America and Europe, Africa and Middle East. ·Hybrids with ARTESIAN <sup>TM</sup> technology increased to 28 percent of sales in North America in 2015 from 21 percent in 2014 and doubled in EAME over the same period.

ENOGEN® is a *corn* seed technology incorporating a corn amylase trait that is the first genetically modified output trait in corn for the US ethanol industry. By enabling expression of an optimized alpha-amylase enzyme directly in corn, dry grind ethanol production can be improved in a way that can be easily integrated into existing infrastructure. Syngenta signed an agreement in 2014 with Cellulosic Ethanol Technologies, LLC (CET) (wholly owned subsidiary of Quad County Corn Processors) to make ethanol from corn kernel fiber. The combination of CET's Cellerate<sup>TM</sup> process technology (formerly known as Adding Cellulosic Ethanol or ACE) with ENOGEN® technology provides synergistic benefits enabling a substantial increase in performance, sustainability and profitability of ethanol plants.

Syngenta continues to deliver a strong portfolio of *soybean*, with the launch of more than 50 new varieties in North America and South America having improved diverse genetics bringing new levels of resistance to key diseases.

Additionally, in South America, Syngenta introduced soybean varieties with herbicide tolerance and insect control<sup>10</sup>.

In *wheat*, a number of new products have been launched across the spring and winter wheat ranges with high yield, good disease tolerance and high bread making qualities. These new wheat seeds are marketed mainly in Europe and North America.

In <i>oilseeds</i> , Syngenta entered the canola seeds business in Canada in the 2013/2014 growing season and currently is
marketing four high yielding hybrids with herbicide tolerance provided by the Genuity® Roundup Ready®6 trait. This
new hybrid barterseed portfolio is being commercialized as part of an integrated cross-crop solution across the whole
farm targeting canola, cereals and pulses.

 $^{10}$  Intacta RR2 PRO  $^{\rm TM}$  is licensed from Monsanto Technology LLC.

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#### <u>Vegetables</u>

In Vegetables, Syngenta continues to launch new and attractive consumer products in the United States, Europe and other parts of the world. Some examples of recently launched products include:

In *melon*, HODA, a yellow canary variety for cultivation in Africa and the Middle East.

In *pepper*, FELICITAS and CONGA, new blocky varieties for protected production in the Americas; MERKAVA, a new blocky variety for protected production in Europe.

In **cauliflower**, CAYLEN, a variety for production in Europe which brings a very good curd quality; CFL1522, a variety with strong heat and humidity tolerance as well as a good curd presentation for the tropical regions.

In *squash*, new products PROMETHEUS in Europe and SPINELESS PERFECTION in the USA, which offer growers excellent high yield with a broad-spectrum disease resistance.

In *sweet corn*, GSS2259P/SHINEROCK multi disease resistant processing sweet corn variety with high yield potential and a native herbicide tolerance, launched globally, and GSS1453 variety with enhanced disease resistance packaged with high yield potential and deep kernels for high recovery, launched in North America.

In *tomato*, NEBULA, a new cherry variety for protected greenhouses in worldwide sophisticated markets, which consistently delivers an outstanding flavor and sets new taste standards; BAMBELO and SEYCHELLE, two new baby plum varieties for protected greenhouses, which bring a unique combination of taste, color, convenience and agronomic performance; TAI1057, a variety which offers improved yield, strong virus resistance, heat set and firmness in South Asia.

In *watermelon*, successful large fruit size seedless varieties such as FASCINATION in the USA and in northern ·Latin America, and EXCLAMATION in the USA. In addition, EL GHALI, a large fruit size seeded variety was launched in North Africa.

Products and Services in Late Stage Development

**Integrated Business** 

Syngenta's integrated business offers in late stage development include:

*PLENE*<sup>®</sup> - In 2014, Syngenta announced plans to broaden and scale up its PLENE<sup>®</sup> platform of integrated sugar cane solutions. The PLENE<sup>®</sup> platform will have in the future three products: PLENE<sup>®</sup> Evolve and PLENE<sup>®</sup> PB for nurseries and gap filling, and PLENE<sup>®</sup> Emerald for commercial planting. Through an exclusive licensing agreement with New Energy Farms, Syngenta will access an innovative planting system for sugar cane in Brazil: CEEDS<sup>TM</sup> (Crop Expansion Encapsulation and Drilling System). The CEEDS<sup>TM</sup> technology under development will deliver PLENE Emerald. Activities in 2016 and 2017 will focus on field trials and research and development ("R&D") development with pre-launch expected by the end of 2017 and commercial sales beginning in 2018.

*MAXVEG*<sup>TM</sup> is an integrated crop protection and agronomy offer for smallholder growers particularly in Asia matching crop protection and nutrients to crop growth stages of specific varieties in order to increase yield.

**Vegetables Sustainability & Productivity** offers for sophisticated growers of greenhouse vegetables in Europe combining seed varieties, crop protection products and biologicals in order to increase crop yield, reduce input resources and ensure produce meeting stringent retailer demands.

Cotton Fast Start Performance provides cotton growers with integrated solutions to address biotic and abiotic ·concerns, focusing on the initial stages of the growth cycle to enable healthy cotton establishment, increased yields and improved quality.

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Crop Protection
Syngenta's pipeline of products under development includes the following Crop Protection products in late stage development:
<u>Fungicides</u>
Oxathiapiprolin <sup>11</sup> (ORONDIS <sup>TM</sup> ) is a piperidinyl thiazole isoxazoline class of fungicides. ORONDIS <sup>TM</sup> is a step change fungicide for oomycete control in vegetables and specialty crops providing effective long lasting field performance, protection of new growth in plants and consistent disease control. ORONDIS <sup>TM</sup> premixes with various active ingredients will be sold worldwide within one global brand family that contains suffixes for differentiation of the mixtures. ORONDIS <sup>TM</sup> received registration from the US Environmental Protection Agency in 2015 and is expected to be launched in 2016.

ADEPIDYN<sup>TM</sup> (pydiflumetofen) is a new broad spectrum fungicide belonging to carboxamide chemical class, having an SDHI mode of action. It delivers a step change in efficacy against leaf spots and excellent control of powdery mildew across multiple crops. In addition ADEPIDYN<sup>TM</sup> is highly active on difficult to control diseases such as Botrytis, Sclerotinia, Corynespora and Fusarium Head Blight, which cause severe damage on key crops. Products containing ADEPIDYN<sup>TM</sup> are being developed for canola, cereals, corn, soybean, specialty crops, vegetables and Lawn and Garden across the globe, with the first product launch expected in 2017.

#### **Insecticides**

Cyantraniliprole mixtures (MINECTO<sup>TM</sup>) Syngenta acquired from DuPont the exclusive right to use cyantraniliprole in mixtures with Syngenta insect control products. Cyantraniliprole is a new broad-spectrum insecticide that also controls sucking pests and is complementary to the chlorantraniliprole insect control product used for Lepidoptera pest control that Syngenta sells in mixtures with its own leading insect control products.

Seeds

Syngenta seeks to produce improved hybrid and varietal seeds to meet the agronomical conditions and demands of its customers and to work towards further improvement of traits advantageous to the grower, i.e., input traits, such as resistance to diseases and insects, and greater yield. In vegetable seeds, Syngenta develops new products to provide consumers with consistent high quality, improved appearance, taste and texture. Powerful analytical science has been

expanding the knowledge of taste, flavor and post-harvest shelf life. Combined with advanced breeding technology, this is accelerating the introduction of novel varieties.
Below are examples of products in development:
Field crops
In <i>barley</i> , next generation spring malting barley with improved enzyme characteristics and new winter barley hybrids combining high yield with improved production characteristics. Syngenta's first hybrid malting barley variety has started the registration process.
Syngenta continues to work towards developing <i>corn</i> seeds across a variety of maturities with high yield, stress tolerance and improved agronomic characteristics, including developing the next generation corn rootworm control trait with a unique mode of action and high efficiency, and stacking multiple modes of action for the same target insects (trait pyramiding) to improve efficacy, combat insect resistance and provide refuge reduction in corn while increasing long-term product sustainability.
<sup>11</sup> Oxathiapiprolin is licensed from DuPont.
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· High yield SAFECROSS by brids with improved disease resistance and stress tolerance in winter *oilseed rape*.

In *rice*, Syngenta is developing an enhanced hybrid portfolio by combining its legacy breeding programs with those acquired in the Devgen acquisition.

A wide range of *soybean* varieties in late stage development deliver expanded spectrum control of soybean cyst nematodes through utilization of alternate native trait sources of resistance and combines this control with tolerance to sudden death syndrome, iron deficiency chlorosis and phytophthora root rot. In South America the development of a full proprietary portfolio with herbicide tolerance and insect control<sup>10</sup> varieties covering major maturity groups and market segments is well advanced.

**Sugar beet** with second generation nematode tolerance for the European market and with broad-spectrum disease and virus resistance in combination with Genuity<sup>®</sup> Roundup Ready<sup>®6</sup> herbicide tolerance trait for the North American market.

- Sunflower with high stable yields, integrating broomrape, herbicide and disease resistance.
- · Healthy oil varieties of *high oleic sunflower* comprising higher heat stability of plant oils for frying.

In *wheat*, Fusarium tolerance, high yield, improved and novel quality, new disease resistance and drought tolerance. In addition, Syngenta is developing a hybrid wheat technology and portfolio, capitalizing on best-in-class breeding expertise and conventional germplasm, some leading commercial positions in conventional wheat in North America and Europe, Africa and Middle East, and prior experience in hybrid barley.

#### **Vegetables**

Focus on increased agronomic quality, fruit quality and shelf life improvements and better plant performance in combination with virus, fungal and insect resistances to provide increased grower performance reliability.

· Advancing abiotic stress tolerant traits for rootstocks for the high value tomato and pepper markets.

Developing new fruit sizes in melons and watermelons tailored to shrinking family sizes in North America and Europe.

· Bringing forward new consumer and value chain traits for textures that improve the quality of fresh cut fruit.

Vegetable research and development to advance convenience traits for consumers.

## **Marketing and Distribution**

Syngenta has marketing organizations in all its major markets with dedicated sales forces that provide customer and technical service, product promotion and market support. Products are sold to the end user through independent distributors and dealers, most of which also handle other manufacturers' products. Syngenta's products normally are sold through a two-step or three-step distribution chain. In the two-step chain Syngenta sells its products to cooperatives or independent distributors, which then sell to the grower as the end user. In the three-step system, Syngenta sells to distributors or cooperative unions which act as wholesalers and sell the product to independent dealers or primary cooperatives before on-selling to growers. Syngenta also sells directly to large growers in some countries. Syngenta's marketing network enables it to launch its products quickly and effectively and to exploit its range of existing products. Syngenta focuses on key crop opportunities in each territory. In those countries where Syngenta does not have its own marketing organization, it markets and distributes through other distribution channels. Generally, the marketing and distribution system in a country does not vary by product.

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Syngenta's marketing activities are directed towards distributors, agricultural consultants and growers. They consist of a broad range of advertising and promotional tools, such as meetings with growers and distributors, field demonstrations, advertisements in specialized publications, direct marketing activities, or information via the Internet. Syngenta is also in constant contact with the food and feed chain to evaluate current and future needs and expectations.

A key element of Syngenta's marketing is grower support and education. This is particularly important with respect to small growers in developing countries. For many years, Syngenta has held numerous courses around the world for growers as a result of which millions of farmers have been trained in the safe and sustainable use of crop protection products. As part of the Good Growth Plan initiated in 2014, Syngenta targets reaching 20 million smallholder farmers and helping them increase their productivity by 50 percent, while preserving the long-term potential of their land. This is being done with the help of organizations such as USAID to enable access to technology and capacity building for smallholder farming in developing countries. Syngenta also trains agricultural extension workers and distributors so that they can further disseminate good practice and reach an even wider audience.

Products must obtain governmental regulatory approval prior to marketing. The regulatory framework for agribusiness products is designed to ensure the protection of the consumer, the grower and the environment.

Syngenta's products are marketed throughout the world through brands, many of which are well known by growers and some of which have been established for many years. Brand names for Syngenta's key products are listed above in "Integrated Business – Key Marketed Products". Syngenta's sales force markets the majority of Syngenta's brands, either to customers directly, in partnership with distributors, or through a network of dealers.

Syngenta has developed and utilizes a number of innovative ways to attract and retain customers in different parts of the world. In an effort to manage some foreign exchange and commodity price volatility in some countries, including Brazil and Argentina, Syngenta sells via barter. In Brazil and Argentina, a recognized agricultural barter trading method allows growers to pre-arrange sale of their soybean, cotton and cereals crops to commodity traders. Under such pre-arrangements, traders pay Syngenta for its crop protection products on growers' behalf when growers deliver crops to the traders. Syngenta generally does not take ownership or delivery of the crops and retains only insignificant commodity price risk in barter transactions. Syngenta also directly barters with Brazilian coffee farmers by accepting their crop as payment for its crop protection products. Syngenta has developed a coffee trading network which sells the coffee to roasters and cooperatives internationally. These barter programs also help Syngenta and its customers mitigate the cash flow and financing risks inherent in the Brazilian agricultural market. Approximately 20 percent of Syngenta's sales in Brazil and 50 percent of sales in Argentina are transacted under one of these barter programs. Syngenta has introduced similar barter programs in Ukraine to secure collection of receivables from customers or to encourage growers to prepay for crop protection or seed products. Approximately 15 percent of Syngenta's Ukraine sales are transacted under such barter programs.

Syngenta also operates non-barter commodity price mitigation programs in certain countries, including South Africa, the Czech Republic and Slovakia. Certain of these programs assist growers by allowing those who purchase Syngenta products within the program to hedge, at no cost or risk to the grower, the price of an equivalent value of their crop via the commodity futures market. Participating growers are protected against crop price declines that may occur before harvest, which helps ensure their ability to pay Syngenta for its products, and retain their ability to profit from crop price increases. Syngenta does not retain any commodity price risk under these programs.

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**Production and Supply** 

Syngenta's combined Crop Protection and Seeds Production and Supply function plays an integral role in implementing Syngenta's strategy in a sustainable manner by assuring product delivery, facilitating delivery of integrated crop solutions, supporting growth plans, reducing costs and promoting efficient use of capital. Through the effective procurement, production and distribution of products, the function ensures that Syngenta meets its commitments to customers around the world. Production and Supply supports Syngenta's growth plans (particularly in emerging markets) and accelerates the building of expertise for scalability and efficiency.

The manufacture of chemical crop protection products and the production of seeds for sale to growers involve different processes.

Active ingredients used for Crop Protection products are manufactured at a limited number of sites located in Switzerland, the United States, the United Kingdom, China and India. Syngenta announced in December 2015 its intention to divest its active ingredient plant in Goa, India. Syngenta also operates a number of chemical formulation and packing sites strategically located close to the principal markets in which those products are sold. Syngenta operates major formulation and packing plants in Belgium, Brazil, China, France, India, South Korea, the United Kingdom, the United States and Switzerland. The formulation, fill and packaging operations in Switzerland will be closed in the latter part of 2016. Both the aforementioned site closures are part of the Accelerating Operational Leverage restructuring program, described further in Item 5.

Syngenta manages its Crop Protection supply chain globally and on a product-by-product basis, from raw materials through delivery to the customer, in order to maximize both cost and capital efficiency and responsiveness. Syngenta outsources the manufacture of a wide range of raw materials, from commodities through fine chemicals to dedicated intermediates and active ingredients. Sourcing decisions are based on a combination of logistical, geographical and commercial factors. Syngenta has a strategy of maintaining, when available, multiple sources of supply. Most purchases of supply chain materials are directly or indirectly influenced by commodity price volatility, due to price dependence on gas and oil. Total raw material spending was approximately 34 percent of Crop Protection sales in 2015.

Approximately 27 percent of Syngenta's raw material purchases for Crop Protection products are fine chemicals. Syngenta has entered into short- to medium-term contracts with many suppliers to provide consistent supply.

Approximately 9 percent of Syngenta's raw material purchases for Crop Protection products are readily available base chemicals that are subject to commodity chemical price volatility. Approximately another 6 percent of raw material

purchases for crop protection products have an indirect exposure to commodity oil price volatility.

Approximately 14 percent of raw materials for Crop Protection products are sourced from China and India in local currencies and therefore are subject to cost fluctuations from movements in currency exchange rates. Exchange rate movements on Swiss Franc, Pound Sterling and Euro may also impact Syngenta's reported raw material costs; approximately 5 percent, 3 percent and 27 percent, respectively, of raw materials for Crop Protection products are purchased in those currencies. Syngenta engages in currency hedging activities to mitigate the impact of currency fluctuations on the cost of its raw material purchases.

Seeds for sale by Syngenta to growers are grown (multiplied) and harvested by independent contract farmers throughout the world. After the harvest, the raw seed is cleaned, calibrated, treated and packaged in Syngenta or third party processing plants, which are located as close to the intended markets as possible so as to achieve cost effectiveness and match the seeds with the growing conditions that are optimal for the variety. This also eases logistics for seed products that require secure storage and timely delivery for the growing season. The largest facilities are located in Argentina, Brazil, France, Hungary, India, Morocco, Spain, Denmark, Thailand, the United States and the Netherlands.

Due to Syngenta's global presence, it can engage in seed production year-round with a goal of mitigating weather-related seed production risk. In addition, because its facilities are located in both the northern and southern hemispheres, Syngenta can shorten the time required to multiply seeds from breeding to commercial production. This enables it to produce marketable quantities more quickly than if it was dependent on only one growing season.

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Operating in the agribusiness sector, changes in commodity crop prices affect Syngenta's raw material costs for seed. The contracts with growers who multiply seed for Syngenta to sell as finished product typically contain terms allowing the multipliers to benefit from commodity seed price increases that may occur during the growing season and that the growers would have received had they been able to sell their crop in the market rather than to Syngenta as supply. Syngenta engages in hedging activities to mitigate the impact of this commodity price volatility on corn and soybean product costs.

#### Research and Development

Syngenta's research and development ("R&D") organization is dedicated to developing quality crop protection and seeds products, as well as crop-focused solutions which integrate multiple technologies. R&D focuses on taking a holistic approach to help customers grow their specific crop using the best technology to address their needs, be it a single technology, a combination of technologies, or technologies and services.

An open and collaborative culture is essential to foster interaction and innovation, both within the R&D organization and across Syngenta, as well as with collaborators and partners. In 2014 and 2015, a number of changes were initiated and made in R&D to simplify the organization with the goal of delivering an innovative pipeline more productively through improved ways of working and leveraging Syngenta's scale. Syngenta believes that R&D is now better placed to effectively and efficiently innovate across crops and regions, resulting in faster and more efficient development and registration of new products.

R&D has three principal units:

**Research** leverages the breadth of Syngenta's research expertise to innovate more productively;

**Development** comprises product-centric development units to drive pipeline delivery to meet grower and business needs; and

**Platforms** underpin the organization, including operations to drive effective implementation as well as the product safety & regulatory function to drive Syngenta's license to operate agenda.

Syngenta performs an extensive investigation of all safety aspects relating to its products. The human safety assessments address potential risks to both the users of the products and the consumers of food and feed, while in environmental safety Syngenta seeks assurance that the products will not adversely affect soil, water, air, flora or fauna.

To complement in-house expertise and bring in novel technologies, Syngenta actively seeks value-adding partnerships and collaborations to bring new offers to growers. It currently has over 400 R&D collaborations with universities, research institutes and commercial organizations around the world.

Syngenta is an R&D based company with total spending by its integrated business on research and development of \$1,310 million in 2015, \$1,376 million in 2014 and \$1,320 million in 2013.

Researching and developing crop protection products

R&D provides Syngenta with innovative new chemical solutions, biologicals and intellectual property with the potential to be combined with other technologies and create maximum value to growers and differentiation. New research areas are guided by the advancement of new technologies in partnership with the commercial crop teams based on customer need, technology, regulatory requirements and socio-political trends.

Syngenta has major research centers focused on identifying new active ingredients in Stein, Switzerland and Jealott's Hill, United Kingdom. Scientists work on the research and development of a portfolio of herbicides, fungicides, insecticides, nematicides and crop enhancing chemicals and biologicals, with broad applicability as foliar, soil and seed treatments for agriculture and Lawn and Garden customers.

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Syngenta is continuously improving its research process. State-of-the-art synthetic chemistry and high-speed automated synthesis are used in concert to effectively prepare the quantity and quality of compounds for both high throughput and highly targeted biological screening. A crucial feature is the structured design approach to chemistry, which ensures that the chemical entities possess properties most likely to relate to the desired product profile, including potency, spectrum and safety parameters.

Once an active ingredient is ready for testing, the development team, supported by the global expertise of the trialing function, ensures that the work is efficiently and effectively completed to turn promising molecules into products that are safe to users and the environment, pass all registration requirements and meet customers' needs. Such development typically takes six to eight years. The active ingredient's efficacy and safety is assessed as early as possible in the development process and all data is compiled for registration and safe product use.

Syngenta tests compounds on target crops globally under different climatic conditions and in varying soils. In parallel, an industrial scale manufacturing process is identified and optimized, and appropriate formulations and packages are developed. In addition, R&D works to improve Syngenta's current chemical products by supporting the development of new mixtures, formulations and programs that bring new effects and opportunities to growers. Refreshing the existing product range is key to continued success in the face of competition, even after patent expiry.

Researching and developing seeds products

R&D is dedicated to creating new varieties of major crops having improved quality and productivity. This includes improving tolerance to pests and other environmental stresses as well as quality characteristics such as nutritional composition, consumer appeal and shelf life. Scientists focus on advancing the performance, stability and quality of seed varieties, not only for Syngenta's eight strategic crops, but also for over 50 food and feed crops in total.

Syngenta's biotechnology activities primarily take place at Research Triangle Park, NC, USA, for both research and development of key native and genetically modified traits. Activities at this site are supported by smaller laboratories around the world. In addition, Syngenta operates approximately 100 breeding and germplasm enhancement centers strategically located around the world.

Syngenta expects that end users such as livestock producers, grain processors, food processors and other partners in the food chain will continue to demand specific qualities in the crops they use as inputs. Syngenta has therefore built up and continues to develop an extensive germplasm library.

In addition to general research and development agreements with other companies and academic institutions around the world, Syngenta has entered into a number of targeted alliances with other enterprises in order to further broaden its germplasm and trait base with the goal of creating more valuable products.

Syngenta develops plants with desirable characteristics using both native traits breeding approaches, resulting in either conventional inbred lines or hybrids, and genetic engineering.

Conventional plant breeding involves crossing carefully chosen parent plants, then selecting the best plants from the resulting offspring to be grown on for further selection. Once the best lines have been selected, they are purified to create 'inbred' lines, in which every plant has the same characteristics, and the process of multiplying seeds begins.

For many crop varieties, including corn, rice, barley, sunflower, sugar beet, oilseed rape and many vegetables, Syngenta produces hybrid seeds, which means that the seed supplied to the grower is the result of the first cross between selected parents; these seeds are unique in expressing 'hybrid vigor', which enables improved yield, performance stability and better quality.

For certain crops, Syngenta also develops transgenic plants where one or more genes of interest have been introduced to a plant via recombinant DNA technology instead of the plant acquiring them through conventional breeding.

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Modern technologies such as marker-assisted selection, production of doubled haploids (genetically pure plant lines that offer a quick route to new gene combinations for specific, desirable improvements) for accelerated breeding and crop modeling allow breeders to develop new varieties much more rapidly and accurately than in the past. However this is still a lengthy process; today it can take five to seven years from first cross to market, and even longer if there is the need for a government approved market authorization.

Biofuels are an important market for corn and sugar cane growers. Syngenta is involved in research and development on crops that make biofuel production more efficient and sustainable. In particular, Syngenta supports current biofuels development to get to the next phase of efficient transformation of plant material into transportation fuel.

#### Intellectual Property

Syngenta protects its investments in R&D, manufacturing and marketing through patents, design rights, trademarks, trade secrets, plant variety protection certificates, plant breeders' rights and contractual language placed on packaging. The level and type of protection varies from country to country according to local laws and international agreements. Syngenta has one of the broadest patent and trademark portfolios in the industry and enforces its intellectual property rights, including through litigation if necessary.

In addition to patent protection for a specific active substance or for seeds (inbreds and varieties) and genomic-related products, patent protection may be obtained for processes of manufacture, formulations, assays, mixtures, and intermediates. These patent applications may be filed to cover continuing research throughout the life of a product and may remain in force after the expiry of a product's per se patents in order to provide ongoing protection. The territorial coverage of patent filings and the scope of protection obtained vary depending on the circumstances and the country concerned.

Patents in respect of plant-related inventions may cover (i) transgenic plants and seeds gene effects, (ii) genetic constructs and individual components thereof and enabling technology for producing transgenic plants and seeds, and (iii) new breeding technologies such as marker-assisted breeding and products obtained thereby. The territorial coverage of patent filings and the scope of protection obtained vary depending on the circumstances and the country concerned.

Trademark protection may be obtained to cover a trademark for a specific active substance or seed variety and there may be more than one trademark covering the same active substance or seed variety. Other trademarks may cover formulations, mixtures, intermediates and a variety of ancillary services. The trademarks may remain in force after the expiry of a product's patents in order to provide ongoing protection. The territorial cover of trademark filings and the

scope of protection obtained vary depending on the circumstances and the country concerned.

Syngenta licenses certain of its intellectual property rights to third parties and also holds licenses from other parties relating to certain of Syngenta's products and processes. Syngenta respects the intellectual property rights of others.

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#### **Competitive Environment**

Syngenta's key competitors are dedicated agribusinesses or large chemical companies headquartered in Western Europe and North America and comprise BASF, Bayer, Dow, DuPont and its Pioneer subsidiary, and Monsanto. Syngenta and these companies in 2015 accounted for about 60 percent of the worldwide market for crop protection and seeds products.

Companies in the crop protection business compete on the basis of strength and breadth of product range, product development and differentiation, geographical coverage, price and customer service. In many countries, generic producers of off-patent crop protection compounds are additional competitors to the research-based companies in the commodity segment of the market.

The main competitive factor in the seeds industry remains the quality of genetics and the increasing importance of traits. Historically, competition in the seeds industry has been fragmented, with small producers competing in local markets. With the emergence of biotechnology, the seeds industry has become research intensive. The majority of the transgenic products commercialized to date are traits that improve performance and farming efficiency in major world crops such as corn, soybean, cotton and canola (input traits). As a result, companies having access to a broad genetic range of germplasm as a platform for trait commercialization have a key competitive advantage. In addition to Monsanto, Pioneer, Bayer and Dow, other significant competitors in the seeds business are: Vilmorin, KWS, and Takii.

In the future, Syngenta expects that increased emphasis will continue to be placed on developing products that provide benefits to food and feed processors, fuel production, retail trade and consumers (output traits). One future competitive advantage is expected to be the ability to develop partnerships to allow delivery of biotechnology traits to the target market sectors.

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Lawn and Garden

Lawn and Garden leverages Syngenta's agricultural chemical technologies into the adjacent markets of (i) consumer home and garden, (ii) turf, landscape and professional pest management and (iii) ornamental flower growers, where it is also a major supplier of flower seeds, cuttings and young plants.

Lawn and Garden is a global business active in all major regions and sales are made primarily via distributors through to its professional customer base.

**Consumer home and garden** products are primarily based on Syngenta's fungicide, herbicide and insecticide range and mostly sold in bulk to wholesale companies for repackaging and sale to retailers.

**Turf, landscape and professional pest management** provides pesticides products in four markets: turf (primarily golf courses), sold through specialized distributors, dealers and professional applicators; pest management, sold primarily through distributors and directly to some large customers; vector control (control of disease spreading insects and pests), where sales are made to governments or NGOs, with some sales through distributors; and vegetation management (trees, forestry and aquatics), where the primary customers are distributors or local governments.

In the turf market specifically, Syngenta provides disease, insect and weed control and turf grass growth regulators to clients including professional golf superintendents, green keepers, sports turf managers and professional lawn care operators working on recreational sites and residential and commercial landscapes.

**Ornamental flowers** provides growers of ornamentals and pot and bedding plants, bulbs and cut flowers with a range of chemical and biological crop protection solutions. In addition, it supplies seeds, cuttings and young plants to distributors, growers and retailers serving the pot and bedding plant markets. Syngenta's flowers business (Syngenta Flowers) has a heritage dating back over 140 years and is active in all major regions. As the global leader in seeds and cuttings, Syngenta Flowers offers a wide range of pot and bedding plant genetics.

Focusing on the pot and bedding plan markets, Syngenta Flowers engages in breeding, producing and distributing flower seeds, cuttings and young plants. It has customers in over 80 countries with key markets comprising the US, Germany, France, UK, Netherlands and Japan. Sales are made primarily via distributors and brokers in North America and through distributors and directly to growers in Europe.

### **Key Marketed Products**

Lawn and Garden offers a range of specialized products for use in the consumer home and garden, turf and landscape, ornamental controls and flower genetics markets. A large number of these products include active ingredients that are also used in Syngenta's Integrated Business described above.

Ornamental controls, consumer home and garden, and turf and landscape brands include:

Abamectin (VERTIMEC®) is a leading ornamental insecticide.

*Azoxystrobin* (HERITAGE®/ORTIVA®/AMISTAR®) is a leading fungicide for use on turf, primarily golf courses, and in ornamentals.

**Prodiamine** (BARRICADE®) is a leading pre-emergence grass and broad-leaved weed herbicide in turf.

SUNJET® Flora (*isopyrazam and azoxystrobin*) for foliar application and PLENTRIX® (*azoxystrobin and mefenoxam*) for soil drench are the first Lawn and Garden fungicide brands specifically for ornamentals.

**Thiamethoxam** (ACTARA®) is an insecticide highly active at low use rates against a broad spectrum of soil and sucking insects.

*Trinexapac-Ethyl* (PRIMO MAXX®) is a herbicide on turf that prohibits vertical growth.

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Professional pest management products for use in controlling insect and rodent pests include:

*Primiphos-methyl* (ACTELLIC®) is an insecticide used for indoor residual spray programs to control the spread of malaria and other vector-borne diseases. Recently re-launched as an encapsulated formulation for longer residual activity, ACTELLIC® CS has gained World Health Organization approval and is increasingly used to eradicate mosquitoes which are resistant to the pyrethroid insecticide class.

• **Brodifacoum** (KLERAT®) is a rodenticide for both professional applicators and consumer use in homes and gardens.

**Chlorantraniliprole** (ALTRISET®/ACELEPRYN®) is a new class of insecticide for the control of termites in building structures and also white grubs and other pests in turf.

*Indoxacarb* (ADVION®/ARILON®) is an insecticide for application by professional pest control operators for the control of ants, cockroaches and other general insect pests.

Flower genetics brands include GOLDFISCH®, GOLDSMITH® SEEDS, YODER® and SYNGENTA® FLOWERS. Products include a full range of flower seeds, cuttings and young plants which Syngenta sells to professional flower growers. Syngenta focuses on breeding a full range of innovative flower varieties, including popular bedding plants such as viola, begonia, New Guinea impatiens, pelargonium and petunia; pot plants, such as cyclamen and poinsettia; cuttings for, amongst others, the growing market of hanging baskets, such as impatiens and verbena; and a wide range of attractive perennials.

Recently Launched Products

Recently launched products for use in ornamentals controls are:

**BIOLINE**® **products** – various predatory and beneficial insects supporting growers in North America to improve integrated production and in certification efforts.

*HICURE*<sup>TM</sup> – amino acids – a biostimulant used in cut flowers for mitigating climatic stress and enabling the rose plant to build a higher number of stems.

*NEMATHORIN*® *150 EC* – fosthiazat<sup>2</sup> – controls soil nematodes in cut flower production.

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*HERITAGE*® *ACTION* – azoystrobin and acibenzolar-s-methyl - providing both broad spectrum protection against fungi and plant health benefits.

 $APPEAR^{\otimes}$  – potassium phospite - systemic pigmented fungicide for the control of diseases caused by pythium and other pathogens on golf courses.

In Flowers, Syngenta introduces over 100 new and improved varieties and series every year. Some of the more unique introductions during the year were:

**BIG KISS**<sup>TM</sup> – F1 Seed Gazania - series with uniquely super-sized flowers up to 12 cm diameter.

*CARTWHEEL*® Strawberry Twist – F1 Seed Gerbera - first double flowered bi-color Gerbera from seed which achieved the Fleurostar Award 2014.

*CALIENTE* ® – vegetative Pelargonium - color additions which strengthen this interspecific geranium series with superior garden performance

CALLIOPE ® – vegetative Pelargonium - color additions which strengthen this interspecific geranium series with superior garden performance

SANGUNA® – vegetative Petunia – early and continuous flowering.

Products in Late Stage Development

Syngenta's pipeline of products under development that have potential application in Turf, landscape and professional pest management, Ornamentals, and Home and garden also have application in its Integrated Business. For further information on this pipeline, see Products in Late Stage Development for Syngenta's Integrated Business above.

Syngenta Flowers has a rich pipeline of products under development, which extends beyond 2020 and involves projects covering all product lines.

Production

Syngenta's crop protection production process and facilities are leveraged to produce and source the range of Turf, landscape and professional pest management, Ornamentals and Home and garden chemical products marketed by Lawn and Garden. For a description of the manufacturing process for these products, see Production for Syngenta's Integrated Business above.

Syngenta Flowers uses its own seed production facilities in Guatemala, Turkey and the Netherlands to produce, clean, pellet, coat and package seed. In addition, independent contract growers in Turkey and Indonesia are used to supplement capacity and capability.

Due to Syngenta's global presence, it can engage in seed production year-round with a goal of mitigating weather-related seed production risk. In addition, because its facilities are located in both the northern and southern hemispheres, Syngenta can shorten the time required to multiply seeds from breeding to commercial production. This enables it to produce marketable quantities more quickly than if it was dependent on only one growing season.

Syngenta Flowers sources vegetative cuttings from its own cutting production facilities in Kenya, Ethiopia, Guatemala and the USA, and from contract growers, notably in Mexico.

Marketing and Distribution

Lawn and Garden has marketing organizations in all its major markets with dedicated sales forces that provide customer and technical service, product promotion and market support. In cases where the crop protection market is not segmented into professional turf, landscape and professional pest management, ornamental or home and garden markets, the Syngenta integrated business organization is used to market Lawn and Garden products to customers.

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The Turf, landscape and professional pest management business of Syngenta operates a business-to-business model supplying chemical controls to professional customers. Products are sold to the end user through independent distributors and dealers, most of which also handle other manufacturers' products. Syngenta's products normally are sold through a two-step or three-step distribution chain as described in Marketing and Distribution for Syngenta's Integrated Business above.

Syngenta Flowers seed and vegetative products are marketed throughout the world through well-known brands, some of which have been established for over 100 years. The Syngenta Flowers brand is an umbrella brand representing the entirety of Syngenta's offer in flower seeds, cuttings and young plants. Syngenta Flowers uses the GOLDFISCH® brand and the GOLDSMITH® and YODER® brands as portfolio brands. Syngenta's sales force markets the majority of Syngenta's brands, either to customers directly, in partnership with distributors, or through a network of dealers. In addition, Syngenta Flowers distributes and brokers its products and product forms through FLORIPRO SERVICES® in Europe. The product range of Flower seeds covers 200 seeds series in 70 classes, while the vegetative range covers 120 series in 81 crops.

Syngenta's marketing activities are directed towards distributors, consultants and growers. They consist of a broad range of advertising and promotional tools, such as meetings with growers and distributors, field demonstrations, advertisements in specialized publications, direct marketing activities, or information via the Internet.

#### Research and Development

Research and development to provide Syngenta with innovative new chemical solutions and intellectual property for its Turf, landscape and professional pest management, Ornamentals, and Home and garden business is conducted at research centers used for crop protection product research and development in its Integrated Business. For further information, see Research and Development for Syngenta's Integrated Business above.

Flowers genetics research and development is dedicated to creating new varieties of major flower genetics having improved quality and productivity, either alone or in combination with other technologies. Syngenta's research and innovation provide the grower and retail markets with a choice of new genetics, shapes and colors of continuously improved longevity, stress tolerance and drought and disease resistance. Syngenta has major Flowers research centers in Enkhuizen, Holland and Gilroy, California, USA, each of which is focused on identifying new or improved varieties of genetics with unique traits.

The total spent on research and development in Lawn and Garden was \$52 in 2015, \$54 million in 2014 and \$56 million in 2013.

### Intellectual Property

Syngenta's Turf, landscape and professional pest management, Ornamentals, and Home and garden products are largely derived from the same products produced for crop protection in its Integrated Business. For further information regarding how Syngenta protects its intellectual property related to these products, see Intellectual Property for Syngenta's Integrated Business above.

Syngenta Flowers maintains the ownership and controls the use of its seeds and genomic-related products and processes by means of intellectual property rights, including but not limited to the use of patents, trademarks, licenses, trade secrets, plant variety protection certificates and contractual language placed on packaging. The level of protection varies from country to country according to local laws. Syngenta Flowers licenses certain of its intellectual property rights to third parties and also holds licenses from other parties relating to certain of Syngenta's products and processes.

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### Competitive Environment

The home and garden chemical controls market is impacted by the shift of business through mega retail channels and crowded shelf space. Syngenta's main competitors in this market include Bayer and regional private labels.

The key competitors in the turf, landscape and professional pest management markets are the leading agribusiness companies based in Western Europe and North America supplying crop protection chemicals which are generally specifically branded and tailored to these specialized markets. These companies compete primarily on the basis of product innovation and portfolio breadth. Additional competition comes from generic manufacturers in the off-patent segments. Increasingly, customer service, integrated programs and more holistic solution offers are being introduced to address broader unmet customer needs and further differentiate the major innovation companies from generics. Syngenta's main competitors in these markets are Bayer, BASF and Dow.

The main competitive factors in the flowers industry remain the quality of genetics and the increasing importance of unique traits to enhance growers' ability to produce as well as improving garden performance for consumers. Historically, and still to a large degree, flowers competition in the seeds industry has been fragmented, with small producers competing in local markets. The traditional grower market has evolved into a mass market of commodity products distinguished by low differentiation and overcapacity increasingly supplying a rapidly consolidating and competitive retail sector. The market opportunities are in increasing presence along the value chain towards retail and delivering to the consumer unique, higher quality plants with improved garden performance. At present, Syngenta Flowers' main competitors in the seeds business are Ball and Sakata and in the vegetative business are Dummen Orange and Florensis.

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Government Regulations

The field-testing, production, import, marketing and use of Syngenta's products are subject to extensive regulation and numerous government approvals. Registration procedures apply in all major markets.

Products must obtain governmental regulatory approval prior to marketing. The regulatory framework for such products is designed to ensure the protection of the consumer, the grower and the environment. Examples of the regulatory bodies governing Syngenta's products include the US Environmental Protection Agency, the US Department of Agriculture and the US Food and Drug Administration.

All biotechnology products are subject to intense regulatory scrutiny and Syngenta conducts extensive studies to ensure products are safe for both consumers and the environment. An extensive Syngenta network of regulatory experts around the world ensures compliance and continued dialogue with the authorities regarding regulatory submissions, insect resistance management programs and participation in further development of the biotech regulatory framework.

Governmental regulatory authorities perform risk assessments on genetically modified ("GM") seed products to ensure the safety of the resulting plants and the food and feed derived from them. Syngenta must obtain regulatory approvals for both cultivation and for import of products thereof into key importing countries that have functioning regulatory systems. Cultivation countries for Syngenta's GM seed currently include the US, Canada, Brazil, Argentina, Vietnam, Paraguay, Uruguay and the Philippines. Key import countries are defined based on the product and cultivation market. "Stacked" products developed through breeding to contain multiple GM traits are also subject to regulation in certain countries. Approvals in some countries are time limited and must be renewed on a periodic basis to ensure that each product adheres to current regulatory standards. Some countries also require safety monitoring and insect resistance management after product commercialization. Additionally, registration of new plant varieties, whether transgenic or not, is required in most countries, but not in the USA.

Government regulations, regulatory systems, and the politics that influence them vary widely among jurisdictions and change often. Obtaining necessary regulatory approvals is time consuming and costly, and data requirements for approvals continue to increase. There can be no guarantee of the timing or success in obtaining approvals.

Environment

Syngenta designed its environmental management program with the aim of ensuring that its products and their manufacture pose minimal risks to the environment and humans. The crop protection industry is subject to environmental risks in three main areas: manufacturing, distribution and use of product. Syngenta aims to minimize or eliminate environmental risks by using appropriate equipment, adopting best industry practice and providing grower training and education.

The entire chain of business activities, from research and development to end use, operates according to the principles of product stewardship. Syngenta is strongly committed to the responsible and ethical management of its products from invention through ultimate use. Syngenta employs environmental scientists around the world who study all aspects of a product's environmental behavior.

Specially designed transportation and storage containers are used for the distribution of hazardous products and efficient inventory control procedures minimize the creation of obsolete stocks.

Syngenta has developed a rigorous screening and development process in order to mitigate risks relating to the use of its products. All active substances and products must meet both Syngenta's internal standards and regulatory requirements.

Syngenta provides support to growers on a local level such as training in application techniques and assistance in calibrating spray equipment in order to promote safe handling of its products. Syngenta extends product stewardship long after sales in several ways, for example, by collecting and safely destroying outdated products, and providing returnable containers to reduce waste.

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Crop protection products are subject to rigorous registration procedures, which are aimed at ensuring safe product usage in the field. In addition to complying with these regulatory requirements, Syngenta has adopted its own Health, Safety and Environment ("HSE") management system. This provides a clear framework of management processes applicable at all sites, whatever the regulatory requirements in the country in which the site is situated.

Syngenta maintains a register of sites to identify manufacturing and distribution sites and locations that may have been contaminated in the past. The register is the basis for the allocation of appropriate provisions and action programs regarding measures to be taken. A risk portfolio is prepared for each site and reviewed annually. The risk portfolio is also applied to third-party manufacturers in order to identify and exclude poorly performing companies.

See Notes 2, 19 and 25 to Syngenta's consolidated financial statements in Item 18 for a further discussion of environmental matters.

# Organizational Structure

The following are the significant legal entities in the Syngenta group of companies (the "Group"). The disclosure criteria are as follows:

# Companies directly owned by Syngenta AG

Companies indirectly owned by Syngenta AG with annual sales in excess of \$100 million or equivalent or total assets in excess of one percent of total Group assets

# Companies with a financing function

None of the significant legal entities are listed. Please refer to Note 29 in the consolidated financial statements in Item 18 for the appropriate consolidation method applied to each type of entity.

Country	Municipality	Capital and voting rights owned by Syngenta <sup>1</sup>	Local currency	Share capital in local currency	Function of company
Argentina Syngenta Agro S.A. Australia	Buenos Aires	100%	ARS	2,801,002,218	Sales/Production
Syngenta Australia Pty Limited	North Ryde	100%	AUD	83,942,909	Sales/Production/Development
Brazil Syngenta Proteção de Cultivos Ltda. Canada	São Paulo	100%	BRL	2,522,624,609	Sales/Production/Research
Syngenta Canada Inc. China	Guelph	100%	CAD	-	Sales/Research
Syngenta (China) Investment Company Limited France	Shanghai	100%	USD	46,660,810	Holding/Sales
	Saint-Sauveur	100%	EUR	50,745,240	Sales/Production/Development

Syngenta France S.A.S.					
Syngenta Holding	Guyancourt	100%	EUR	99,965,085	Holding/Finance
France SA <sup>2</sup>	Guyancourt	100 /6	LUK	77,703,003	Holding/I manec
Germany					
Syngenta Agro GmbH	Maintal	100%	EUR	2,100,000	Sales
Hungary					
Syngenta Hungary Kft. India	Budapest	100%	HUF	280,490,000	Sales/Production/Development
Syngenta India					
Limited	Pune	96%	INR	164,718,540	Sales/Production
Indonesia					
PT Syngenta	T 1 .	1000	IDD	50 100 074 000	0.1 (0.1 ); (0.1)
Indonesia	Jakarta	100%	IDR	58,122,874,000	Sales/Production/Development
Italy					
Syngenta Italia	Milano	100%	EUR	5,200,000	Sales/Production/Development
S.p.A.	Willallo	100%	LUK	3,200,000	Sales/Floduction/Development
Japan					
Syngenta Japan	Tokyo	100%	JPY	_	Sales/Production/Research
K.K.	1011)0	10070	01 1		2 41 - 51 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
South Korea					
Syngenta Korea	Seoul	100%	KRW	127,882,000,000	Sales/Production/Development
Ltd.					•
Mexico	Mávico City				
Syngenta Agro, S.A. de C.V.	México City, D.F.	100%	MXN	157,580,000	Sales/Production/Development
Netherlands	D.1 .				
Syngenta Seeds					
B.V.	Enkhuizen	100%	EUR	488,721	Holding/Sales/Production/Research
Syngenta Finance	T 11 '	1000	ELID	45,000	
N.V.	Enkhuizen	100%	EUR	45,000	Finance
Syngenta Treasury	Enkhuizen	100%	EUR	90,001	Holding/Finance
N.V.	Liikiiuizeii	100%	LUK	90,001	Holding/Pillance
Panama					
Syngenta Crop	Panama City	100%	USD	101,000	Sales/Distribution
Protection S.A.				,	

Country	Municipality	Capital and voting rights owned by Syngenta <sup>1</sup>	Local currency	Share capital in local currency	Function of company
Paraguay Syngenta Paraguay S.A. Poland	Asunción	100%	PYG	192,000,000,000	Sales/Production
Syngenta Polska Sp.z.o.o.	Warsaw	100%	PLN	22,264,000	Sales
Russian Federation OOO Syngenta Spain	Moscow	100%	RUB	895,619,000	Sales/Distribution
Syngenta España S.A.	Madrid	100%	EUR	7,544,828	Distribution/Development/Production
Switzerland Syngenta Supply AG	Basel	100%	CHF	250,000	Sales
Syngenta Crop Protection AG <sup>2</sup>	Basel	100%	CHF	257,000	Holding/Sales/Production/Research
Syngenta Crop Protection	Monthey	100%	CHF	70,000,000	Production
Monthey SA <sup>2</sup> Syngenta Crop Protection Münchwilen AG <sup>2</sup> Syngenta Crop	Münchwilen	100%	CHF	5,010,000	Production/Research
Protection Schweizerhalle AG	Muttenz	100%	CHF	103,000	in Liquidation
in Liq. <sup>2</sup> Syngenta Agro AG Syngenta	Dielsdorf	100%	CHF	2,100,000	Sales/Production/Research
Agroservices Asia AG <sup>2</sup>	Basel	100%	CHF	650,000	Distribution/Consulting
Syngenta Finance AG <sup>2</sup>	Basel	100%	CHF	10,000,000	Finance
Syngenta International AG <sup>2</sup>	Basel	100%	CHF	100,000	Management Services
Syngenta Participations AG <sup>2</sup>	Basel	100%	CHF	25,000,020	Holding
Syngenta South Asia AG <sup>2</sup>	Basel	100%	CHF	9,000,000	Holding/Finance
Ukraine TOV Syngenta United Kingdom	Kiev	100%	UAH	2,009,240,000	Sales/Research
Syngenta Limited	Guildford	100%	GBP	85,000,000	Holding/Production/Research

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Syngenta UK Limited	Fulbourn	100%	GBP	500	Sales/Research
USA					
Syngenta Crop Protection, LLC	Greensboro	100%	USD	100	Sales/Production/Research
Syngenta Seeds, LLC	Minnetonka	100%	USD	_	Sales/Production/Research
Syngenta Corporation	Wilmington	100%	USD	100	Holding/Finance
GreenLeaf Genetics LLC	Minnetonka	100%	USD	100	For Liquidation
Vietnam Syngenta Vietnam Ltd.	Bien Hoa City	100%	USD	45,000,000	Sales/Production

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<sup>1</sup> The capital and voting rights in 2015 have not changed compared with 2014

<sup>2</sup>Direct holding of Syngenta AG

# **Property, Plants and Equipment**

Syngenta's principal executive offices are located in Basel, Switzerland. Syngenta's businesses operate through a number of offices, research facilities and production sites. The following is a summary of Syngenta's principal properties:

Rosental, Basel, Switzerland Monthey, Switzerland Stein, Switzerland Dielsdorf, Switzerland Kaisten, Switzerland Freehold Freehol
Monthey, Switzerland Stein, Switzerland Dielsdorf, Switzerland Freehold Fre
Stein, Switzerland Freehold 4,000 Research Dielsdorf, Switzerland Freehold 200 Administration, marketing, production Kaisten, Switzerland Freehold 1001 Production
Dielsdorf, Switzerland Freehold 200 Administration, marketing, production Freehold 1001 Production
Kaisten, Switzerland Freehold 100 <sup>1</sup> Production
,
Münchwilen, Switzerland Freehold 600 Research, production
Seneffe, Belgium Freehold 2,500 Production
Ghent, Belgium Leasehold 100 Administration, research
Aigues-Vives, France Freehold 1,500 <sup>2</sup> Production
Nérac, France Freehold 600 Production
St Pierre, France Freehold 1,500 Production
Saint-Sauveur, France Freehold 200 Research, production
Sarrians, France Freehold 3,200 Research
Bad Salzuflen, Germany Leasehold 34,400 Research, production
Mezotur, Hungary Freehold 1,300 Production
Enkhuizen, The Netherlands Freehold 3,500 Administration, research, marketing, production
Landskrona, Sweden Freehold 8,700 Research, production, marketing
Jealott's Hill, Berkshire, UK Freehold 28,300 Research
Huddersfield, West Yorkshire, UK Freehold 10,800 Production
Grangemouth, Falkirk, UK Freehold 900 Production
Greensboro, North Carolina, USA Freehold 3,000 US headquarters, research
Minnetonka, Minnesota, USA Freehold 100 Administration
St. Gabriel, Louisiana, USA Freehold 54,700 Production
Greens Bayou, Texas, USA Freehold 10,900 <sup>3</sup> Production
Research Triangle Park,
Freehold 3,400 Research
North Carolina, USA
Gilroy, California, USA Freehold 2,500 Production, research, marketing
Lone Tree, Iowa, USA Freehold 1,300 Production
Omaha, Nebraska, USA Freehold 1,800 Production
Phillips, Nebraska, USA Freehold 2,600 <sup>4</sup> Production
Waterloo, Nebraska, USA Freehold 1,700 <sup>5</sup> Production
Pasco, Washington, USA Freehold 1,700 Production
Clinton, Illinois, USA Freehold 1,400 Research
Stanton, Minnesota, USA Freehold 18,000 Research

Slater, Iowa, USA	Freehold	13,700	Research
Woodland, California, USA	Freehold	6,400	Production, research
Venado Tuerto, Argentina	Freehold	1,000	Production
Formosa, Brazil	Freehold	2,200	Production
Itápolis, Brazil	Freehold	500	Production
Ituiutaba, Brazil	Freehold	2,200	Production
Matão, Brazil	Freehold	500	Production
Paulinia, Brazil	Freehold	6,800	Production
Uberlandia, Brazil	Freehold	27,000	Research
Amatitlan, Guatemala	Freehold	3,100	Production
Kapok, Guatemala	Freehold	2,000	Production
Nantong, China	Leasehold	1,900	Production
Beijing, China	Leasehold	300	Research
Goa, India	Freehold	8,700	Production, research
Iksan, South Korea	Freehold	900	Production
Koka, Ethiopia	Leasehold	9,700	Production
Pollen, Kenya	Freehold	4,800	Production
Thika, Kenya	Freehold	3,000	Production

- 1 Surface area of building/factory that Syngenta owns; land (143 thousand square feet) is owned by a third party
- 2 Only approximately 900 thousand square feet are currently used and developed
- 3 Only approximately 5,900 thousand square feet are currently used and developed
- 4 Only approximately 1,700 thousand square feet are currently used and developed
- 5 Only approximately 1,200 thousand square feet are currently used and developed

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Please also see "Business Overview" above for a description of the products produced at the various properties listed above.

In 2015, Syngenta completed the approximately \$80 million project, which commenced in 2013, at Syngenta's Formosa site in Brazil to expand production capacity by approximately 30 percent.

In 2013, Syngenta announced plans to invest approximately \$90 million by the end of 2018 on the expansion of its research and development operations on Syngenta's research campus in Research Triangle Park, North Carolina, USA, including further capacity expansion, and upgraded laboratory and other facilities. Research at the expanded site will focus on traits that can better tolerate climate variability, combat plant stresses such as drought, and enhance crop productivity and plant performance. In addition to the current focus on corn and soybean, research will be expanded to incorporate other crops such as cereals, rice, vegetables and sugar cane. Spending on the project in 2015 was approximately \$30 million and cumulative spending totals approximately \$80 million.

In 2014, Syngenta started work at its Monthey, Switzerland site to increase the production capacity of SDHI fungicides by 900 metric tons per year by 2017 at an estimated cost of \$65 million. Spending on the project in 2015 was approximately \$30 million and cumulative spending totals approximately \$40 million.

In 2014, Syngenta announced plans to invest an additional approximately \$100 million at its Kaisten, Switzerland site to increase production capacity of an intermediate to one of its major Selective herbicide products by an additional approximately 30 percent to meet increasing demand. Spending on the project in 2015 was approximately \$30 million and cumulative spending totals approximately \$70 million. Due to lower than previously anticipated demand growth, completion of the project has been postponed to 2016.

Syngenta is refurbishing and modernizing its Basel headquarters under a program that will run over the period through 2017 and is estimated to cost approximately \$200 million, with approximately 85 percent spent as of December 31, 2015.

The approximately \$90 million project at Syngenta's Nantong, China facility to increase production capacity of crop protection products by approximately 1,000 metric tons per year to meet increasing demand was completed in 2015.

The approximately \$50 million project at Syngenta's Stein, Switzerland research site to expand and upgrade its biological sciences facilities in order to meet long-term growth objectives was completed in 2015.

In 2015, Syngenta announced plans to invest \$20 million at its Seedcare Institute facility located in Stanton, Minnesota, USA to expand existing infrastructure to meet long-term business objectives. Spending on the project during 2015 was less than \$10 million.

### ITEM 4A - UNRESOLVED STAFF COMMENTS

None.

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Item 5 — Operating and Financial Review and Prospects

Introduction

The following discussion includes forward-looking statements subject to risks and uncertainty. See "Forward-looking statements" at the beginning of this document. This discussion also includes non-GAAP financial data in addition to GAAP results. See Appendix A to this section and Note 1 to the financial highlights in Item 3 for a reconciliation of this data and explanation of the reasons for presenting such data.

Constant exchange rates

Approximately 51 percent of Syngenta's sales and 65 percent of Syngenta's costs in 2015 were denominated in currencies other than US dollars. Therefore, Syngenta's results for the period covered by the review were significantly impacted by movements in exchange rates. Sales in 2015 were 11 percent lower than 2014 on a reported basis, but were 1 percent higher when calculated at constant rates of exchange. The Company therefore provides analysis of results calculated at constant exchange rates ("CER") and also actual results to allow an assessment of performance before and after taking account of currency fluctuations. To present CER information, current period results for entities reporting in currencies other than US dollars are converted into US dollars at the prior period's exchange rates, rather than the exchange rates for this year. An example of this calculation is included in Appendix A of this section.

Overview

Syngenta is a world leading agribusiness operating in the crop protection, seeds and lawn and garden markets. Crop protection chemicals include herbicides, insecticides, fungicides and seed treatments to control weeds, insects and diseases in crops, and are essential inputs enabling growers around the world to improve agricultural productivity and food quality. In Seeds, Syngenta operates in the high value commercial sectors of field crops (including corn, oilseeds, cereals and sugar beet) and vegetables. The Lawn and Garden business provides professional growers and consumers with flowers, turf and landscape, and professional pest management products.

Syngenta's results are affected, both positively and negatively, by, among other factors: general economic conditions; weather conditions, which can influence the demand for certain products over the course of a season and the quantity and cost of seeds supply; commodity crop prices; and exchange rate fluctuations. Government measures, such as subsidies or rules regulating the use of agricultural products, genetically modified seeds, or areas allowed to be

planted with certain crops, also can have an impact on Syngenta's industry. Syngenta's results are also affected by the growing importance of biotechnology to agriculture and the use of genetically modified crops. In future years, climate change may have both positive and negative impacts on Syngenta's results. Climate change may make growing certain crops more or less viable in different geographic areas, but is not likely to reduce overall demand for food and feed. Syngenta currently sells and is developing products to improve the water productivity of plants and increase tolerance to drought and heat. Legislation may be enacted in the future that limits carbon dioxide emissions in the manufacture of Syngenta's products or increases the costs associated with such emissions. Syngenta works actively to make its production operations more energy efficient and to reduce the rate of carbon dioxide emissions per unit of sales revenue.

Syngenta operates globally to capitalize on its technology and marketing base. Syngenta's largest market in 2015 was Europe, Africa and the Middle East, which represented approximately 31 percent of consolidated sales (2014: 32 percent) followed by Latin America and North America, each at 27 percent (2014: 29 percent and 25 percent, respectively) and Asia Pacific at 15 percent (2014: 14 percent). Markets for agricultural products in Europe, Africa and the Middle East and North America are seasonal resulting in both sales and operating profit for Syngenta in these markets being weighted towards the first half of the calendar year, which largely reflects the northern hemisphere planting and growing cycle. Latin America has its main selling season in the second half of the year due to its location in the southern hemisphere. Asia Pacific sales and operating profit are more uniform throughout the year.

Syngenta's most significant manufacturing and research and development sites are located in Switzerland, the United Kingdom ("UK"), the United States of America ("USA" or "US"), China and India. Syngenta has major research centers focused on identifying new active ingredients in Stein, Switzerland and Jealott's Hill, UK. Syngenta's primary center for agricultural genomics and biotechnology research is in the USA.

References in this document to market share estimates are based where possible on global agrochemical and biotechnology industry information provided by a third party or on information published by major competitors and are supplemented by Syngenta marketing staff estimates.

The consolidated financial statements in Item 18 are presented in US dollars, as this is the major currency in which revenues are denominated. However, significant, but differing proportions of Syngenta's revenues, costs, assets and liabilities are denominated in currencies other than US dollars. Approximately 15 percent of sales in 2015 were denominated in Euros, while a significant proportion of costs for research and development, administration, general overhead and manufacturing were denominated in Swiss francs and British pounds sterling (approximately 19 percent in total). Sales in Swiss francs and British pounds sterling together made up approximately 2 percent of total sales. Marketing and distribution costs are more closely linked to the currency split of the sales. As a result, operating profit in US dollars can be significantly affected by movements in exchange rates, in particular movements of the Swiss franc, British pound sterling, Euro and Brazilian real, relative to the US dollar, and the relative impact on operating profit may differ from that on sales. Sales in emerging markets are over 50 percent of Syngenta's total sales. Where it is not commercially disadvantageous, Syngenta sets sales prices in these markets in US dollars, particularly in parts of Latin America and the CIS. However, in many emerging territories Syngenta sells in the local currency of the countries in the territory and as a result has a long exposure to multiple emerging market currencies. The effects of currency fluctuations within any one year have been reduced by risk management strategies such as hedging and the aforementioned US dollar sales pricing. For further information on these strategies please refer to Note 27 of the consolidated financial statements in Item 18.

The consolidated financial statements in Item 18 are based upon Syngenta's accounting policies and, where necessary, the results of management estimations. Syngenta believes that the critical accounting policies and estimations underpinning the financial statements are in the areas of (i) royalty and license income, (ii) impairment, (iii) classification of assets and liabilities to be divested, (iv) foreign currency translation of intercompany transactions, (v)

acquisition accounting, (vi) adjustments to revenue and trade receivables, (vii) seeds inventory valuation and allowances, (viii) environmental provisions, (ix) defined benefit post-employment benefits, including pension asset ceiling, (x) deferred tax assets and (xi) uncertain tax positions. These policies are described in more detail in Notes 2 and 29 to the consolidated financial statements in Item 18.

### **Summary of results**

Net income in 2015 was 17 percent lower than 2014 as cost savings from the ongoing restructuring and local currency sales price increases were more than offset by the impacts of generally weaker currencies relative to the US dollar, increased charges to restructuring and impairment and the favorable impact in 2014 of amendments to the defined benefit pension plans in the UK and the Netherlands.

Sales in 2015 were 11 percent lower, but 1 percent higher at constant exchange rates, with 2 percent lower sales volumes offset by 3 percent higher local currency sales prices, driven by increases to offset declines in emerging market currencies. The adverse impact on sales of generally weaker currencies relative to the US dollar was approximately \$1.8 billion. The lower sales volume reflected a deliberate reduction in sales of low margin glyphosate, weaker seeds volumes in Russia and the Ukraine after the sales price increases to offset the impact of currency weakness and generally challenging markets, partly offset by a favorable impact of a change in selling terms in Brazil that brought forward the recognition of sales and \$200 million royalty income from the signing of a trait license agreement with KWS and Limagrain. Despite the challenging conditions, ELATUS<sup>TM</sup> sales volumes increased by more than 30 percent, driven by growth in its second year in Brazil, and ACURON® sales exceeded \$100 million in the launch year in the US. Local currency sales price increases included price increases in Russia and the Ukraine, offsetting currency weakness in those countries, partially offset by lower prices in solo glyphosate, which reflected lower purchase prices for the active ingredient; otherwise, local currency sales prices overall were broadly flat.

Operating costs as a percentage of sales increased slightly in 2015 compared with 2014, but excluding restructuring and impairment were approximately 1.4 percentage points lower. Operating costs in 2015 were reduced by approximately \$1.2 billion due to weaker currency exchange rates relative to the US dollar, and also reflected savings under the ongoing restructuring programs and initial benefits from the lower oil price, which together more than offset cost inflation. In addition, operating costs compared with prior year were impacted by an increase in charges to provisions for doubtful receivables and the gains of approximately \$170 million recorded in 2014 from amendments to defined benefit pension plans in the UK and the Netherlands. Restructuring and impairment costs excluding those in Cost of goods sold were \$195 million higher as the Accelerating Operational Leverage ("AOL") program announced in February 2014 gained momentum in 2015; increased charges also reflected advisor costs associated with potential industry consolidation transactions, including the unsolicited approach from Monsanto Company, the ChemChina tender offer, and the impairment of assets related to a seeds crop, where expectations of future operating profitability have declined. Currency exchange rate impacts from the general strength of the US dollar reduced operating income by approximately \$571 million, including higher gains on related hedges in 2015 than 2014, with a significant negative impact from the significantly weaker Russian ruble and Ukrainian hryvnia that was offset by increased local currency sales prices; excluding these currencies, the net adverse impact on operating income, including hedging, was approximately \$100 million.

Cash flow from operating activities was \$741 million lower including an increased build-up of trade receivables in Latin America due largely to delayed collections, reduced cash sales and extended terms combined with the

aforementioned change in sales in Brazil, which brought forward the recognition of receivables; inflows from reduced inventories were also lower following the significant reduction in the inventory to sales ratio in 2014. Income before taxes, adjusted for the reversal of non-cash items was \$92 million higher than 2014, including a higher add-back for charges to provisions. Taxes paid were higher following the settlement of outstanding tax years for an entity in Switzerland, and cash paid for restructuring costs increased as the AOL program progressed. Cash flow used for investing activities in 2015 was \$267 million lower than in 2014, including a \$147 million reduction in additions to property, plant and equipment; net cash spent on acquisitions and disposals was also lower. Cash flow used for financing activities was \$768 million higher than in 2014; both years included bond repayments, but in 2015 bond repayments were broadly matched by a new bond issue, while in 2014 Eurobond and domestic CHF bonds were issued at a higher level than that of bonds repaid in the year. Subject to shareholder approval, Syngenta proposes to maintain the regular dividend at CHF 11.00 per share. In addition, if the offer to acquire Syngenta shares through a tender offer described in Note 30 to the consolidated financial statements in Item 18 becomes unconditional, Syngenta will pay a special dividend of CHF 5.00 per share immediately before the first settlement of the offer.

Integrated sales of Crop Protection and Seeds products were 12 percent lower, but were flat at constant exchange rates. Integrated sales included the \$200 million royalty income from the aforementioned license agreement with KWS and Limagrain and \$239 million additional sales related to the change in sales terms in Brazil, which brought forward the sales recognition to the point of delivery to distributors less a provision for expected product returns; however, sales were decreased by the deliberate reduction in volumes of lower margin glyphosate products and lower glyphosate local currency sales prices, which together reduced sales by approximately \$350 million. Crop Protection product sales were 12 percent lower, 1 percent at constant exchange rates, with 2 percent lower sales volumes partly offset by 1 percent higher local currency sales prices. Seeds sales declined in 2015 by 10 percent, but at constant exchange rates were 5 percent higher as an 8 percent increase in local currency sales prices, driven by local currency price increases in Russia and the Ukraine, was offset only partially by a 3 percent decrease in sales volume, including some adverse impact on sales volume from the aforementioned price increases.

Integrated sales of Crop Protection and Seeds products were 15 percent lower in Europe, Africa and Middle East, but were 10 percent higher at constant exchange rates. Sales in Russia and the Ukraine benefitted from significant local currency price increases to offset currency declines and in US dollar terms reached 86 percent of 2014 sales; excluding these countries, sales in the region were broadly flat at constant exchange rates but adversely impacted by an approximately 17 percent decline in the Euro relative to the US dollar. Sales in North America were 5 percent lower, 4 percent at constant exchange rates, with \$145 million income from the KWS and Limagrain license largely offset by the deliberate reduction in glyphosate volumes and lower glyphosate prices, together with the adverse impact on demand of low crop commodity prices. Latin America sales were 15 percent lower, 5 percent at constant exchange rates. Revenue in the region included \$55 million from the KWS and Limagrain agreement and an additional \$239 million from the change in sales terms noted above, but this was offset by difficult market conditions, particularly in the second half of the year, and challenging credit conditions in Brazil and Argentina; ELATUS<sup>TM</sup> sales, however, grew strongly in its second year in Brazil. Sales in Asia Pacific were 10 percent lower, 3 percent at constant exchange rates, with broad based local currency sales price increases more than offset by lower volumes from the phase-out of paraquat sales in China due to a regulatory change and drought conditions in ASEAN.

Lawn and Garden sales were 7 percent below the 2014 level, but were 3 percent higher at constant exchange rates with growth driven by the introduction of a new SDHI fungicide VELISTA<sup>TM</sup> in North America and increased vector control sales; flowers sales were lower following a focus on larger customers to improve profitability.

Gross profit margin increased by 1.6 percentage points, 1.5 percentage points excluding restructuring and impairment, despite the adverse impact of general currency exchange rate weakness relative to the US dollar. The favorable impact of the license agreement signed with KWS and Limagrain and restructuring savings, combined with reduced oil prices and smaller share in the product mix of lower margin solo glyphosate, more than offset the net impact of currency movements on US dollar sales prices and cost of goods sold.

Marketing and distribution expenses decreased by 11 percent, but were flat at constant exchange rates. Savings under ongoing restructuring programs, including headcount reductions in marketing and sales, offset an increase in charges

for doubtful receivables in Latin America and inflation, particularly in emerging markets.

Research and development expense decreased by 5 percent, but was 3 percent higher at constant exchange rates, with cost savings from ongoing restructuring more than offset by the impact of the \$49 million gain reported in 2014 from the amendments to defined benefit pension plans in the UK and the Netherlands noted above.

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General and administrative includes restructuring and impairment, the components of which are described under the Restructuring and impairment heading within this section, and which increased by \$195 million compared with 2014. General and administrative excluding restructuring and impairment was 21 percent lower, including foreign exchange hedging gains of \$21 million compared with \$15 million in 2014. Excluding currency effects, General and administrative excluding restructuring and impairment was 3 percent lower; cost savings under ongoing restructuring programs, including both headcount reductions and the relocation of certain support activities to lower cost locations, more than offset the recognition of a \$22 million gain in 2014 from changes to the UK and Netherlands pension plans.

Restructuring and impairment expenses in 2015, excluding those reported in Cost of goods sold, increased by \$195 million over 2014. 2015 included \$240 million of costs from the AOL program announced in February 2014, compared with \$63 million in 2014, as the program gained momentum. Charges in 2015 also increased due to higher acquisition, divestment and related costs, including advisor costs associated with industry consolidation activities. Non-cash costs included the impairment of the assets of a seeds crop where expectations of future operating profitability have declined.

Financial expense, net was \$39 million higher than 2014 mainly due to increased exposures and hedging costs in emerging markets, particularly in Latin America. The tax rate, excluding taxes related to restructuring and impairment, increased by 2 percentage points to 17 percent.

Together, these factors resulted in 2015 net income attributable to Syngenta AG shareholders and diluted earnings per share decreasing by 17 percent, compared with 2014.

In 2015, following the removal of the cap on the Swiss franc value relative to the Euro, Syngenta refined the method it uses to measure inventories and cost of goods sold to refer to the original exchange currencies in which inventory and cost of goods sold were incurred. This refinement ensures that inventories sourced with the same cost profile and which are at the same stage of manufacture are valued consistently regardless of which Syngenta entity purchases and holds them. Prior to 2015, the method used involved indirect translation into US dollars via the currencies of the Syngenta entities through which the products were routed in Syngenta's supply chain. Applying the new method, Syngenta reported 2015 net income \$73 million higher than it would have reported under the previous method. The impact of applying the new method on 2014 and 2013, before the removal of the Swiss franc cap, would not have been material to the results of either year. Syngenta regards the new method as better reflecting the underlying economics from year-to-year and not in itself a factor in the change in net income between 2014 and 2015. The change in method is further described in Note 2 to the consolidated financial statements in item 18.

Net income in 2014 was 2 percent lower than in 2013 as higher sales volumes and local currency sales prices were offset by the effects of weaker emerging market currency exchange rates and emerging market cost inflation; the favorable impact of the amendment to the defined benefit pension plan in the UK was offset by higher staff incentive

costs compared with the low level in 2013.

Sales in 2014 were 3 percent higher than in 2013, 5 percent higher at constant exchange rates, with 2 percent growth in sales volumes and an additional 3 percent from higher local currency sales prices. This growth was achieved despite the impact of deliberate reductions in sales volume of the low margin solo glyphosate product TOUCHDOWN®, which reduced sales by approximately \$150 million. First year sales of the new fungicide ELATUS<sup>TM</sup> in Brazil increased sales by over \$300 million. Local currency sales price increases were achieved in 2014 in both Crop Protection and Seeds products and in all regions.

Operating costs as a percentage of sales increased slightly in 2014 compared with 2013, but at constant exchange rates were approximately 0.5 percent lower. Costs in 2014 were net of gains of approximately \$170 million from amendments to defined benefit pension plans in the UK and the Netherlands; 2013 included a gain of \$41 million from a change to the Swiss pension fund and significantly lower staff incentive costs. Cost of goods sold in 2014 included approximately \$110 million higher fixed costs from lower capacity utilization largely in Crop Protection products; 2013 Cost of goods sold included approximately \$175 million higher costs largely due to the drought in the seed growing season in 2012, with a continued impact in 2014 of approximately \$100 million, and approximately \$170 million of additional inventory provisions largely related to corn seed production in the United States in 2013. The charge to seeds inventory provisions in 2014 returned to more normal levels. Research and development costs were 4 percent higher than 2013, 5 percent at constant exchange rates. Research and development costs as a percentage of sales were broadly in line with 2013 at 9.4 percent and except for the 2014 defined benefit pension gain impact would have been towards the upper end of the medium-term target of 9-10 percent of sales forecast in the 2013 report. Restructuring and impairment costs excluding those in Cost of goods sold were \$14 million higher as a result of the first year costs of the AOL program. Excluding restructuring and impairment, combined Marketing and distribution expense and General and administrative were 5 percent higher, 9 percent at constant exchange rates; costs in 2013 included the full benefit of the amendment to the Swiss pension plan and lower staff incentive costs, while the impacts of the 2014 pension plan amendments were included largely in Cost of goods sold and Research and development. Exchange rate impacts, particularly those from sales in emerging market currencies, reduced operating income by approximately \$170 million, including gains on related hedges in 2014 compared with small losses in 2013. Financial expense, net was \$17 million higher than 2013, mainly due to increased funding and hedging costs relating to emerging market operations and higher bank charges from government transaction taxes in Argentina. The tax rate, excluding taxes related to restructuring and impairment, remained flat at 15 percent.

Cash flow from operating activities increased \$717 million largely due to changes in net working capital, which decreased mainly as the result of a planned reduction in inventory levels compared with an increase in 2013. Cash flow used for investing activities in 2014 was \$43 million lower than in 2013, including lower additions to property, plant and equipment, and increased proceeds from disposals including the sale of a site in Turkey. Cash flow used for financing activities was \$694 million lower than in 2013; while both years included bond repayments, in 2014 both Eurobond and domestic CHF bonds were issued; the higher net funds inflow from these bond activities more than offset the increased dividend payment.

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Acquisitions, divestments and other significant transactions

2015

On October 15, 2015, Syngenta acquired 100 percent of the shares of Land.db Enterprises Inc. in exchange for cash, including contingent consideration. The primary reason for the acquisition was to gain exclusive control of the AgriEdge Excelsior® farm management software program, which integrates products, services, risk management and technology for growers.

2014

In April 2014, Syngenta acquired 100 percent of the shares of Società Produttori Sementi S.p.A. ("PSB") in exchange for cash. PSB is one of Italy's oldest seed companies and a leader in durum wheat breeding and production. The primary reasons for the acquisition were to gain access to PSB's durum wheat breeding expertise and its links to the food industry, which will be complemented by Syngenta's cereals Research and Development and global presence.

In July 2014, Syngenta acquired the German and Polish winter wheat and winter oilseed rape ("WOSR") breeding and business operations of Lantmännen, the Swedish food, energy and agriculture group, in exchange for cash. The acquired business consists of 100% of the shares of Lantmännen SW Seed Hadmersleben GmbH, Lantmännen SW Seed GmbH, SW Winter Oilseed AB and certain sites in Germany. The primary reasons for the acquisition were to give Syngenta access to high-quality germplasm, a seeds pipeline and commercial varieties which complement Syngenta's portfolio and will support the continued development of hybrid cereals for growers worldwide.

2013

In January and March 2013, Syngenta acquired the remaining equity interests in deVGen N.V. ("Devgen") that it did not already own after its initial takeover offer was settled in December 2012.

In October 2013, Syngenta acquired 100 percent of the shares of MRI Seed Zambia Ltd. ("MRI Seed") and MRI Agro Zambia Ltd. ("MRI Agro") (collectively "MRI") for \$88 million in cash. MRI is a leading developer, producer and distributor of white corn seed in Zambia. Syngenta believes that the white corn market has high growth potential, and the crop is critical to Africa's future food security. MRI's corn germplasm is among Africa's most comprehensive and diverse, incorporating temperate, tropical and sub-tropical material. This unique portfolio will be developed to support expansion in high-growth East African markets and may be leveraged globally through Syngenta's elite breeding programs. MRI Agro also distributes crop protection chemicals and other agricultural inputs in Zambia.

In December 2013, Syngenta divested its Dulcinea Farms business ("Dulcinea") to Pacific Trellis Fruit LLC, a US-based international grower and marketer of fresh produce.

### Restructuring programs

In February 2014, Syngenta announced a restructuring program, the Accelerating Operational Leverage ("AOL") program to drive further improvement in operating income margins and accelerate delivery of operational leverage as sales grow. The program targets an improvement in profitability as a percentage of sales over the period up to 2018 from a reduction in the ratios of cost of goods sold, marketing and distribution, research and development and general and administrative expenses to sales. The program includes plans to further improve efficiency in customer facing operations, research and development and production and to enable an improvement in the ratio of trade working capital to sales. The cash cost of the restructuring program is estimated at approximately \$900 million, including the costs of implementing new systems, but excluding related capital expenditures, and significant benefits began to be realized in 2015. During 2015, cash costs of \$228 million were charged under the program and cash spent was \$168 million. A pension curtailment gain of \$21 million was recognized in relation to employees impacted by restructuring and non-cash charges of \$33 million were incurred for impairments of assets whose values were reduced by programs improving production and supply efficiency. Cumulative costs incurred for the program through December 31, 2015 total \$277 million and cumulative spending totals \$211 million.

The program announced in 2011 to integrate global commercial operations for Crop Protection and Seeds is substantially complete. The program has enabled operational synergies from the commercial integration, additional cost savings from procurement and supply chain efficiencies and the presentation of an integrated product offer to grower customers. It is estimated that final cash costs of approximately \$400 million will be incurred to complete the program. During 2015, costs of \$27 million were charged under the program (2014: \$61 million) and cash spent was \$29 million (2014: \$61 million). Cumulative costs incurred for the program through December 31, 2015 total \$399 million and cumulative spending totals \$375 million.

The operational efficiency cost saving programs announced in 2004 and 2007 are now complete. Cash spent under the programs in 2015 and 2014 totaled \$7 million and \$26 million, respectively, and minor cash outflows are expected

during 2016. Cumulative spending on the programs to the end of 2015 totaled \$1,060 million and non-cash charges totaled \$371 million, broadly in line with the projected \$1,050 million cash costs and \$380 million of non-cash charges indicated in the 2014 report.

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Results of operations

2015 compared with 2014

Sales commentary

Syngenta's consolidated sales for 2015 were \$13,411 million, compared with \$15,134 million in 2014, an 11 percent decrease year on year. At constant exchange rates sales grew by 1 percent. The analysis by segment is as follows:

(\$m, except change %)		Change					
Segment	2015	2014	Volume %	Local price %	CER %	Currency 9	% Actual %
Europe, Africa and Middle East	3,884	4,547	-2%	12%	10%	-25%	-15%
North America	3,410	3,582	-1%	-3%	-4%	-1%	-5%
Latin America	3,632	4,279	-1%	-4%	-5%	-10%	-15%
Asia Pacific	1,837	2,033	-7%	4%	-3%	-7%	-10%
Total integrated	12,763	3 14,441	-2%	2%	_	-12%	-12%
Lawn and Garden	648	693	2%	1%	3%	-10%	-7%
Group sales	13,411	115,134	1-2%	3%	1%	-12%	-11%

### **Europe, Africa and Middle East**

Sales decreased by 15 percent, but increased by 10 percent at constant exchange rates as sales price increases of 12 percent partially were offset by 2 percent lower volumes. The price increases were largely realized in the CIS and substantially offset the significant currency depreciation in those countries. The adverse impact on sales volume of crop protection products from dry weather conditions, low crop disease pressure and depressed cereals prices was offset by strong performance in Fungicides, particularly the cereal fungicides SEGURIS® and MODDUS®, as well as Seedcare. This offset the reduction of seeds volumes in the region, particularly in the CIS as a result of the aforementioned price increases. However, seeds volumes in the CIS grew significantly in the fourth quarter as the result of a successful campaign for corn and sunflower seeds.

North America

Sales decreased by 5 percent, 4 percent at constant exchange rates as sales prices decreased by 3 percent and volumes were 1 percent lower. A planned reduction in sales of glyphosate and lower glyphosate sales prices reduced integrated sales by 4 percent. In the USA, ongoing low crop commodity prices negatively affected the demand for crop enhancement applications. In Canada, sales were lower due to dry weather conditions and high channel inventories of Seedcare products at the start of the year. Sales in the fourth quarter increased significantly, helped by trait revenues of \$145 million from the licensing agreement with KWS and Limagrain announced in October and volume growth driven by ACURON®, a newly launched herbicide.

Latin America

Sales decreased by 15 percent, 5 percent at constant exchange rates as sales prices decreased by 4 percent and volumes were 1 percent lower. Market conditions deteriorated in the second half of the year, with the sharp depreciation of the Brazilian real as well as tight credit conditions for growers in both Brazil and Argentina. The deliberate reduction in glyphosate volumes, together with lower local currency sales prices, reduced sales by \$224 million. Higher sales of ELATUS<sup>TM</sup>, now in its second year in Brazil, partially offset the impact of lower sales of Insecticides. In 2015, Syngenta implemented a change in contractual sales terms for crop protection products in Brazil, which caused a timing change in sales recognition and increased reported sales by \$239 million. In addition, 2015 seeds sales in the region included \$55 million in trait revenue from the KWS and Limagrain agreement.

#### Asia Pacific

Sales decreased by 10 percent, 3 percent at constant exchange rates as volumes decreased by 7 percent and sales prices were 4 percent higher. Sales volumes decreased in ASEAN, which experienced extended drought conditions, and China, where sales of paraquat were phased out due to a regulatory change. These decreases partially were offset by higher volumes in Australasia and where increased cotton acreage drove higher Seedcare sales. Sales price increases were achieved across most territories in the region, most notably in South Asia and with higher seed prices in ASEAN reflecting the increased adoption of genetically modified seed technology.

Lawn and Garden: major brands ICON®, GOLDFISCH®, GOLDSMITH SEEDS, YODER®, SYNGENTA FLOWERS

Sales decreased by 7 percent, but increased by 3 percent at constant exchange rates as volumes increased by 2 percent and sales prices were increased by 1 percent. Volume growth was driven by the introduction of the new SDHI fungicide VELISTA<sup>TM</sup> in North America and higher vector control sales in Africa and the Middle East. Sales volumes in Flowers were lower as a consequence of a new strategy focusing on larger customers in order to improve profitability.

Sales by product line are set out below:

(\$m, except change %)					Change	2	
Product line	2015	2014	Volume %	Local price %	CER %	Currency %	Actual %
Selective herbicides	2,894	3,083	2%	4%	6%	-12%	-6%
Non-selective herbicides	913	1,445	-21%	-10%	-31%	-6%	-37%
Fungicides	3,357	3,518	6%	3%	9%	-14%	-5%
Insecticides	1,705	2,066	-7%	-1%	-8%	-9%	-17%
Seedcare	994	1,115	-1%	1%	_	-11%	-11%
Other crop protection	142	154	-10%	9%	-1%	-7%	-8%
<b>Total Crop Protection</b>	10,005	511,381	-2%	1%	-1%	-11%	-12%
Corn and soybean	1,564	1,665	1%	3%	4%	-10%	-6%
Diverse field crops	658	827	-13%	21%	8%	-28%	-20%
Vegetables	616	663	-2%	7%	5%	-12%	-7%
<b>Total Seeds</b>	2,838	3,155	-3%	8%	5%	-15%	-10%
Elimination*	(80)	(95)	n/a	n/a	n/a	n/a	n/a
Total integrated	12,763	314,441	-2%	2%	_	-12%	-12%
Lawn and Garden	648	693	2%	1%	3%	-10%	-7%
<b>Group sales</b>	13,411	15,134	1-2%	3%	1%	-12%	-11%

\* Crop Protection sales to Seeds

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**Crop Protection** 

**Selective herbicides**: major brands ACURON®, AXIAL®, CALLISTO® family, DUAL MAGNUM®, BICEP II MAGNUM®, FUSILADE®MAX, FLEX®, TOPIK®

Sales decreased by 6 percent, but increased by 6 percent at constant exchange rates as local currency sales prices were increased by 4 percent and volumes grew by 2 percent. The price increase was substantially in the CIS, where it compensated for currency depreciation. Sales volume growth was led by sales in the US of ACURON®, which achieved its target of \$100 million sales in its launch year. This combined with higher sales in Latin America from the change in sales terms in Brazil more than offset decreased volumes elsewhere, particularly in Canada due to dry weather conditions.

Non-selective herbicides: major brands GRAMOXONE®, TOUCHDOWN®

Sales decreased by 37 percent, 31 percent at constant exchange rates as volumes decreased by 21 percent and local currency sales prices decreased by 10 percent. The sales decline reflects the decision by Syngenta to reduce volumes of low gross profit margin solo glyphosate in order to improve overall profitability. Volumes were also impacted by the phase out of sales in China of GRAMOXONE® following a regulatory change affecting paraquat liquid formulations. The sales price decrease was due to the lower price of TOUCHDOWN® and reflected a lower purchase price for the active ingredient.

**Fungicides**: major brands ALTO®, AMISTAR®, BONTIMA<sup>TM</sup>, BRAV<sup>®</sup>QELATUS<sup>TM</sup>, MODDU<sup>®</sup>\$REVUS®, RIDOMIL GOLD®, SCORE®, SEGURIS®, TILT®, UNIX®

Sales decreased by 5 percent, but increased by 9 percent at constant exchange rates as volumes grew by 6 percent and local currency sales prices were increased by 3 percent. Sales volume growth was achieved in all regions except Asia Pacific, where dry weather conditions reduced demand. Growth in Latin America included strong second-year sales of ELATUS<sup>TM</sup>, which exceeded \$400 million. Sales volume also grew widely in Europe, led by strong sales of the cereals fungicides ALTO<sup>®</sup>, MODDUS<sup>®</sup> and SEGURIS<sup>®</sup>. Sales price increases in Latin America, Asia Pacific and Europe, which were driven by price rises in the CIS to offset currency weakness, more than offset lower prices in North America.

Insecticides: major brands ACTARA®, DURIVO®, FORCE®, KARATE®, PROCLAIM®, VERTIMEC®

Sales decreased by 17 percent, 8 percent at constant exchange rates as volumes decreased by 7 percent and local currency sales prices decreased by 1 percent. Volume growth in Asia Pacific from new product introductions in China and India was more than offset by a reduction in Latin America, caused by dry weather and low insect pressure in Argentina and high channel inventories in Brazil, though with higher ACTARA® sales in the fourth quarter from an improvement in the sugarcane market. Sales price increases in Europe, mainly in the CIS, and in Asia Pacific were offset by declines particularly in Latin America.

Seedcare: major brands AVICTA®, CRUISER®, DIVIDEND®, CELEST®/MAXIM®, VIBRANCE®

Sales decreased by 11 percent and were unchanged at constant exchange rates as a 1 percent local currency sales price increase was offset by a 1 percent volume decrease. Sales price increases in Europe, mainly in the CIS to offset currency weakness, more than offset lower prices in North America and Latin America. Sales volumes in Europe were strong in the cereals markets in the CIS and Central Europe, and in Asia Pacific sales benefitted from a focus on key accounts and broad based growth in Australasia. This largely offset lower volumes in North America, caused by high channel inventories in the Canadian cereals market and lower cotton acres in southern US states.

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Seeds

Corn and soybean: major brands AGRISURE®, GOLDEN HARVEST®, NK®

Sales decreased by 6 percent, but increased by 4 percent at constant exchange rates as local currency sales prices were increased by 3 percent and volumes grew by 1 percent. Corn sales volumes increased due to a combined \$200 million recognized in North America and Latin America in the fourth quarter from the licensing agreement with KWS and Limagrain. This was partially offset by lower branded product sales in the US, caused by the acreage shift from corn to soybean, and lower corn volumes in Europe due to reduced acreage. Soybean volumes in Latin America decreased as sales were shifted to distributors as part of the implementation of the Integrated Business Partner model in Brazil. Corn prices were increased significantly in the CIS and also increased in Asia Pacific, driven by increased adoption of genetically modified seed technology there.

Diverse field crops: major brands NK® oilseeds, HILLESHÖG® sugar beet

Sales decreased by 20 percent, but increased by 8 percent at constant exchange rates as local currency sales prices were increased by 21 percent and volumes decreased by 13 percent. The strong price growth was due to substantial price increases on sunflower in the CIS, which fully offset the impact of currency depreciation, though with some adverse impact on sales volume as some growers switched from high value hybrids to lower quality local seeds. Sugar beet volumes were lower due to oversupply in the sugar market, which led to significant acreage shifts in Europe.

**Vegetables**: major brands ROGERS®, S&G®

Sales decreased by 7 percent, but increased by 5 percent at constant exchange rates as local currency sales prices were increased by 7 percent and volumes decreased by 2 percent. Sales prices were increased in all regions with a focus on capturing value for high quality hybrids across the portfolio and in particular in Asia Pacific where Syngenta captured a share of the strong return on investments being achieved by growers in South Asia. Sweetcorn sales in the USA decreased due to high processor inventories.

# Operating income

Variances in the tables below reflect the profit impact of changes year on year. For example, an increase in sales or a decrease in costs is a positive variance and a decrease in sales or increase in costs is a negative variance.

Group Operating Income	Total as re under IFR	•	Restruction and impairm		Before rest and impairmen	_	Change b restructur impairme	ing and	
(\$m, except change %)	2015	2014	2015	2014	2015	2014	Actual %	CER	%
Sales	13,411	15,134	_	_	13,411	15,134	-11 %	1	%
Cost of goods sold	(7,042)	(8,192)	_	(13)	(7,042)	(8,179)	14 %	5	%
Gross profit	6,369	6,942	_	(13)	6,369	6,955	-8 %	7	%
as a percentage of sales	48 %	46 %	· –	_	48 %	46 %			
Marketing and distribution	(2,210)	(2,497)	_	_	(2,210)	(2,497)	11 %	· –	
Research and development	(1,362)	(1,430)	_	_	(1,362)	(1,430)	5 %	-3	%
General and administrative	(956)	(910)	(388)	(193)	(568)	(717)	21 %	3	%
Operating income	1,841	2,105	(388)	(206)	2,229	2,311	-4 %	21	%
as a percentage of sales	14 %	14 %	)		17 %	15 %			
Operating Income/(Loss)									
(\$m, except change %)						2015	2014	Chang	ge%
Europe, Africa and Middle East						1,155	1,456	-21	%
North America						973	901	8	%
Latin America						890	1,069	-17	%
Asia Pacific						484	560	-14	%
Non-regional						(1,781)	(1,981)	10	%
Total integrated						1,721	2,005	-14	%
Lawn and Garden						120	100	20	%
Group						1,841	2,105	-13	%

The two tables above do not represent income statements prepared under IFRS. Please refer to the information reported in the consolidated financial statements in Item 18.

# Overall Group operating income

<sup>1</sup> Amounts before restructuring and impairment are non-GAAP measures. Please refer to Appendix A of the Operating and Financial Review for a more detailed description.

Operating income decreased by 13 percent to \$1,841 million as the adverse impact of generally weaker currencies versus the US dollar and increased charges to Restructuring more than offset cost savings and local currency sales price increases. Overall, weaker currencies reduced operating income by approximately \$571 million, including a significant adverse impact from the Russian ruble and Ukrainian hryvnia. The ruble and hryvnia currency impact was substantially offset by local currency sales price increases in Russia and the Ukraine. Excluding these currencies, the adverse impact on operating income of exchange rate movements, including the net hedging result from the hedging program for forecast foreign currency transactions ("EBITDA hedging program"), is estimated at approximately \$100 million. The ratio of operating income to sales was broadly flat, but improved by approximately 1.4 percentage points excluding restructuring and impairment.

Sales declined by 11 percent, but were 1 percent higher at constant exchange rates with sales volumes 2 percent lower with the deliberate reduction in sales of solo glyphosate and challenging market conditions in all regions more than offsetting license income received from KWS and Limagrain and the impact of the change in selling terms in Brazil. Overall local currency sales prices were 3 percent higher, driven by price increases in Russia and the Ukraine to substantially maintain equivalent US dollar price levels and after absorbing lower prices for solo glyphosate; prices otherwise were broadly flat. Exchange rate movements reduced sales by \$1.8 billion, or 12 percent. Gross profit margin increased by 1.6 percentage points, 1.5 percentage points excluding restructuring and impairment. The favorable impact of the license agreement signed with KWS and Limagrain and restructuring savings, combined with reduced oil prices and the smaller share in the product mix of lower margin solo glyphosate, more than offset lower US dollar sales prices and the inclusion in 2014 of gains from the amendments to defined benefit pension plans in the UK and the Netherlands.

Marketing and distribution costs were 11 percent lower, but remained flat at constant exchange rates, with emerging market cost inflation and an increase to charges for doubtful receivables, particularly in Brazil, more than offsetting marketing and distribution cost savings from restructuring activities. Research and development expense decreased by 5 percent, but was 3 percent higher at constant exchange rates, with cost savings from ongoing restructuring more than offset by the impact of the \$49 million gain reported in 2014 from the amendments to defined benefit pension plans in the UK and the Netherlands noted above. Research and development expense increased to 10.2 percent of sales, compared with 9.4 percent in 2014, also due to the different currency mix in Research and development costs compared with that of sales.

General and administrative including restructuring and impairment was 5 percent higher than 2014, but 21 percent lower excluding restructuring and impairment. General and administrative is reported net of the result of currency hedging programs, which in 2015 was a net income of \$21 million compared with a net income of \$15 million in 2014. At constant exchange rates, taking into account both variances in underlying costs and the change in the net hedging result from year to year, General and administrative excluding restructuring and impairment was 3 percent lower than 2014. General and administrative costs in global support functions, including Business Services, are charged out to the segments and to the global Research and development and Production and Supply operations in US dollars at amounts fixed at the start of the year and are then reported in Cost of goods sold, Research and development expense and Marketing, sales and distribution expense; as a result, the impact of currency movements on reported General and administrative is calculated based on the gross expenditure before these recharges. Lower costs in 2015 at constant exchange rates reflected savings under the ongoing restructuring programs, including headcount reductions and the transfer of support function roles to lower cost countries, as well as tight constraint of variable costs; increased gains on the disposal of non-current assets in 2015 offset the \$22 million recorded gain on changes to the UK and Netherlands pension plans in 2014. Restructuring and impairment, including the portion recorded in Cost of goods sold, is described in Note 6 to the consolidated financial statements in Item 18 and increased by \$182 million in 2015 to \$388 million due to the progression of the AOL restructuring program and advisory costs related to proposed industry consolidation corporate transactions.

# Operating income by segment

Europe, Africa and Middle East	Total as r under IFF	_	Restruction and impairs		Before re and impa	structuring irment <sup>1</sup>	Change restruct and impairm	uring
(\$m, except change %)	2015	2014	2015	2014	2015	2014	Actual	EER%
Sales	3,884	4,547	_	_	3,884	4,547	-15%	10 %
Cost of goods sold	(1,889)	(2,180)	_	(13)	(1,889)	(2,167)	13 %	2 %
Gross profit	1,995	2,367	_	(13)	1,995	2,380	-16%	21 %
as a percentage of sales	51 %	52 %			51 %	52 %		
Marketing and distribution	(586)	(720)	_	_	(586)	(720)	19 %	4 %
General and administrative	(254)	(191)	(128)	(30)	(126)	(161)	22 %	17 %
Operating income	1,155	1,456	(128)	(43)	1,283	1,499	-14%	37 %

as a percentage of sales

30 % 32

%

33 % 33

%

This table does not represent an income statement prepared under IFRS. Please refer to the segmental information reported in Note 4 to the consolidated financial statements in Item 18.

1 Amounts before restructuring and impairment are non-GAAP measures. Please refer to Appendix A of the Operating and Financial Review for a more detailed description.

Reported sales in Europe, Africa and Middle East were 15 percent below 2014, but had been reduced by approximately 25 percent due to weaker exchange rates relative to the US dollar, including the Euro, Russian ruble and Ukrainian hryvnia. At constant exchange rates, sales were 10 percent above 2014, with local currency price increases of 12 percent, principally in the CIS to compensate the currency weakness, offset by 2 percent lower sales volumes. See the Sales commentary section above for further information on sales in the region.

Gross profit margin was 0.7 percentage points lower and, excluding restructuring and impairment was also 0.7 percentage points lower. Local currency price increases in Russia and the Ukraine offset the adverse impact of exchange rate weakness and enabled gross profit to be largely maintained. The portion of Restructuring and impairment in 2014 that is included in Cost of goods sold related to the acquisitions completed in the year.

Marketing and distribution costs were 19 percent lower, 4 percent at constant exchange rates, with lower charges for doubtful receivables following strong customer collections in Eastern Europe and cost savings realized under the AOL restructuring program.

General and administrative was 33 percent higher including increased restructuring charges. Excluding restructuring and impairment, General and administrative was 22 percent lower, 17 percent at constant exchange rates due to the inclusion in 2015 of the gain on disposal of land from a site in Switzerland. Restructuring and impairment charges reported within General and administrative were \$128 million in 2015 compared with \$30 million in 2014. Charges in 2015 include \$107 million related to progressing the AOL restructuring program, including restructuring the marketing organization and the relocation of certain support activities to lower cost countries, and \$7 million for the integration of acquisitions completed in previous years. Charges in 2014 include first year costs of the AOL program in the region.

Operating income as a percentage of sales was 2 percentage points lower in 2015, but excluding restructuring and impairment was broadly flat at 33 percent, with the lower Marketing and distribution and General and administrative expenses offsetting the reduced gross profit margin.

North America	Total as re under IFRS	eported	Restru and impair		Before re and impa	structuring irment <sup>1</sup>	_	
(\$m, except change %)	2015	2014	2015	2014	2015	2014	Actual	EER%
Sales	3,410	3,582	_	_	3,410	3,582	-5 %	-4 %
Cost of goods sold	(1,779)	(2,003)	_	_	(1,779)	(2,003)	11 %	9 %
Gross profit	1,631	1,579	_	_	1,631	1,579	3 %	3 %
as a percentage of sales	48 %	44 %			48 %	44 %		

Marketing and distribution	(537	)	(564	)	_	_	(537	)	(564	)	5	%	3	%
General and administrative	(121	)	(114	)	(37)	(22)	(84	)	(92	)	9	%	8	%
Operating income	973		901		(37)	(22)	1,010		923		9	%	8	%
as a percentage of sales	29	%	25	%			30	%	26	%				

This table does not represent an income statement prepared under IFRS. Please refer to the segmental information reported in Note 4 to the consolidated financial statements in Item 18.

1 Amounts before restructuring and impairment are non-GAAP measures. Please refer to Appendix A of the Operating and Financial Review for a more detailed description.

Reported sales decreased by 5 percent, 4 percent at constant exchange rates, with sales volumes 1 percent lower and 3 percent lower local currency sales prices. See the Sales commentary section above for further information on sales in the region. Sales included \$145 million from the license agreement with KWS and Limagrain, which increased the gross profit margin by approximately 2.3 percentage points; excluding this, gross profit margin was approximately 1.5 percentage points higher in 2015, 1 percentage point at constant exchange rates, partly due to the impact of lower volumes of lower margin solo glyphosate sales in 2015.

Marketing and distribution costs were 5 percent lower, 3 percent at constant exchange rates, with savings from restructuring within both the marketing and distribution functions.

General and administrative excluding restructuring and impairment was 9 percent below 2014, 8 percent at constant exchange rates, due partially to a settlement gain relating to the US defined benefit pension plan and the realization of insurance proceeds relating to claims made in prior years, where recovery had not previously been assumed.

Restructuring and impairment costs were \$15 million higher than 2014 and in 2015 included \$23 million under the AOL program, including a minor impairment related to the closure of a seeds plant in the US. 2015 charges also included \$7 million of impairment of exclusive distribution rights where an agreement was terminated. Charges in 2014 included \$12 million for initiatives under the AOL program, cash costs for the closure of activities that had not been divested with the Dulcinea business and final charges under previous restructuring programs.

Operating income as a percentage of sales increased by 4 percentage points as a result of the higher gross profit margin, including the favorable impact of the \$145 million license income from the agreement with KWS and Limagrain.

Latin America	Total as under IF	-	Restru and impair	eturing	Before reand impa	structuring irment <sup>1</sup>	Change restruct and impairn	uring
(\$m, except change %)	2015	2014	2015	2014	2015	2014	Actual9	CER%
Sales	3,632	4,279	_	_	3,632	4,279	-15%	-5 %
Cost of goods sold	(2,118)	(2,492)	_	_	(2,118)	(2,492)	15 %	5 %
Gross profit	1,514	1,787	_	_	1,514	1,787	-15%	-4 %
as a percentage of sales	42 %	6 42 %	, 2		42 %	42 %		
Marketing and distribution	(557)	(615)	_	_	(557)	(615)	9 %	-13 %
General and administrative	(67)	(103)	(28)	(26)	(39)	(77)	50 %	_
Operating income	890	1,069	(28)	(26)	918	1,095	-16%	-15 %
as a percentage of sales	25 %	6 25 %	,		25 %	26 %		

This table does not represent an income statement prepared under IFRS. Please refer to the segmental information reported in Note 4 to the consolidated financial statements in Item 18.

Amounts before restructuring and impairment are non-GAAP measures. Please refer to Appendix A of the Operating and Financial Review for a more detailed description.

Sales decreased by 15 percent, 5 percent at constant exchange rates with 1 percent lower sales volumes and 4 percent lower local currency sales prices. See the Sales commentary section above for further information on sales in the region. Gross profit margin was stable at 42 percent, approximately 0.4 percentage points lower at constant exchange rates. The favorable mix impact of reduced sales volume of lower margin glyphosate, lower glyphosate active ingredient purchase costs and an improved gross profit margin on seeds products from the new soybean operating model combined to offset the adverse impact of lower sales prices.

Marketing and distribution costs were 9 percent lower than 2014, but were 13 percent higher at constant exchange rates, with relatively high local cost inflation rates, particularly in Argentina, and higher charges to provisions for doubtful receivables due to weaker macroeconomic and liquidity conditions, particularly in Brazil; these more than offset the full year benefit in 2015 of the reduction of the commercial organisation in Argentina that occurred in 2014.

General and administrative excluding restructuring and impairment was approximately 50 percent lower than 2014, but broadly flat at constant exchange rates, with costs savings in support functions offset by an increase in litigation costs. General and administrative in 2015 was net of currency hedging gains of \$31 million, compared with losses of \$6 million in 2014.

Restructuring and impairment costs increased by \$2 million to \$28 million in 2015. The 2015 amount includes \$22 million related to the AOL restructuring program, including restructuring of marketing operations and initial costs to establish an integrated system and support platform in Brazil. Charges in 2014 included non-cash impairments of \$14 million for the write-down of machinery in Brazil due to significant changes in production processes and \$9 million for initiatives to drive efficiencies in local commercial operations under the AOL program.

Operating income was \$179 million lower, \$177 million excluding restructuring and impairment, due to the reduced sales and increased charges for doubtful receivables. Operating income as a percentage of sales declined by 0.5 percentage points. Excluding restructuring and impairment, operating income as a percentage of sales declined by 0.3 percentage points and by 2.6 percentage points at constant exchange rates due to increased Marketing and distribution costs, including the higher charges for doubtful receivables.

Asia Pacific	Total as under IF		-		Restruction and impairs		Before and im		tructur rment <sup>1</sup>	ing	rest and	ruc	e bef turin ment	g
(\$m, except change %)	2015		2014		2015	2014	2015		2014		Act %	ual	CEI	R%
Sales	1,837		2,033		_	_	1,837		2,033		-1(	)%	-3	%
Cost of goods sold	(1,012)		(1,10)	7)	_	_	(1,012)	2)	(1,10)	7)	9	%	4	%
Gross profit	825		926		_	_	825		926		-11	1 %	-3	%
as a percentage of sales	45	%	46	%			45	%	46	%				
Marketing and distribution	(286)		(314	)	_	_	(286	)	(314	)	9	%	4	%
General and administrative	(55)		(52	)	(20)	(4)	(35	)	(48	)	27	%	26	%
Operating income	484		560		(20)	(4)	504		564		-11	1 %	_	
as a percentage of sales	26	%	28	%			28	%	28	%				

This table does not represent an income statement prepared under IFRS. Please refer to the segmental information reported in Note 4 to the consolidated financial statements in Item 18.

Sales were 10 percent lower, but only 3 percent lower at constant exchange rates, with 7 percent lower sales volumes and 4 percent higher local currency sales prices. See the Sales commentary section above for further information regarding sales in the region. Gross profit margin declined by 0.6 percentage points, but was flat at constant exchange rates, with higher local currency sales prices and reduced sales of lower margin paraquat offset by adverse country mix within the region.

<sup>1</sup> Amounts before restructuring and impairment are non-GAAP measures. Please refer to Appendix A of the Operating and Financial Review for a more detailed description.

Marketing and distribution costs were 9 percent lower, 4 percent at constant exchange rates, with savings from restructuring in the marketing function.

General and administrative excluding restructuring and impairment decreased by \$13 million, approximately \$12 million at constant exchange rates, with tight cost constraints on support functions, minor increases in government grants and gains from an intangible asset disposal.

Restructuring and impairment charges in 2015 increased by \$16 million to \$20 million. Charges in 2015 included \$16 million for implementation of AOL programs and \$3 million final charges under a previous restructuring program.

Operating income margin decreased by 2 percentage points to 26 percent, but excluding restructuring and impairment remained flat at 28 percent.

### Non-regional

Income and expense transactions in the integrated business have been attributed to the geographic regions based on the market destination to which they relate, rather than on the region in which they originated. Some costs of the integrated organization do not relate to a geographic destination and are reported as non-regional. These include global marketing teams, research and development and corporate headquarter functions. In addition, regional gross profit performance is based on standard product costs, with variances from the standard reported as non-regional in order to align the reported results with organizational responsibility. Non-regional also includes results of centrally managed currency and commodity hedging programs.

Non-regional costs decreased by \$200 million, or 10 percent from 2014, to \$1,781 million largely due to a decrease in Cost of goods sold of \$146 million reflecting more favorable production cost variances in the production of Crop Protection products. The favorable production cost variances are due to both weaker currency exchange rates in purchasing and manufacturing costs and lower purchase prices, including those linked to the price of oil. Research and development expense was 5 percent lower, but was 3 percent higher at constant exchange rates as cost savings from ongoing restructuring were offset by the \$49 million of gains from pension plan amendments in the UK and Netherlands recorded in 2014. Global marketing expense decreased by \$27 million due to the restructuring and reorganization of the global marketing teams. General and administrative is reported including currency hedging losses of \$30 million compared with gains of \$13 million in 2014. Excluding restructuring and impairment, General and administrative decreased by \$33 million to \$274 million. At constant exchange rates, these costs were approximately \$30 million higher, with cost savings from the AOL restructuring program more than offset by the \$22 million gain recorded in 2014 from the amendments to the UK and Netherlands pension plans and lower gains in 2015 on tangible asset disposals. Restructuring and impairment charges reported within Non-regional increased by \$72 million to \$168 million. Charges in 2015 included \$66 million related to the AOL program, including impairments at two manufacturing sites, a further impairment related to a seeds crop where expectations of future profitability have reduced and approximately \$77 million of acquisition, divestment and related costs, including advisory costs associated with possible corporate transactions. Details of restructuring and impairment for 2015 and 2014 are shown further below.

							Cha	ange	9	
	Total as		Restr	ucturing	Before		bef	ore		
Lawn and Garden	reported	l	and		restruct	uring	rest	truc	turi	ng
	under IF	FRS	impai	rment	and imp	airment1	and	l		
							imp	pair	men	$t^1$
(\$m avaant ahanga (%)	2015	2014	2015	2014	2015	2014	Act	tual	CE	R
(\$m, except change %)	2013	2014	2013	2014	2013	2014	%		%	
Sales	648	693	_	_	648	693	-7	%	3	%
Cost of goods sold	(298)	(318)	_	_	(298)	(318)	6	%	-1	%
Gross profit	350	375	_	_	350	375	-7	%	4	%
as a percentage of sales	54 %	54 %			54 %	54 %				
Marketing and distribution	(161)	(174)	_	_	(161)	(174)	8	%	_	

Research and development	(52)	(54)	_	_	(52)	(54)	3 %	-1 %
General and administrative	(17)	(47)	(7)	(15)	(10)	(32)	69 %	-1 %
Operating income	120	100	(7)	(15)	127	115	10 %	14 %
as a percentage of sales	19 %	14 %			20 %	17 %		

This table does not represent an income statement prepared under IFRS. Please refer to the segmental information reported in Note 4 to the consolidated financial statements in Item 18.

Amounts before restructuring and impairment are non-GAAP measures. Please refer to Appendix A of the Operating and Financial Review for a more detailed description.

Lawn and Garden sales were 7 percent lower, but were 3 percent higher at constant exchange rates, with a 1 percent increase in local currency sales prices and a 2 percent increase in sales volumes. See the Sales commentary section above for further information on sales in the segment. Gross profit margin decreased by 0.1 percentage points but increased by 0.8 percentage points at constant exchange rates from increased volumes of higher margin Turf & Landscape products.

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Marketing and distribution costs were 8 percent lower, but were flat at constant exchange rates. Research and development expense was 3 percent lower, 1 percent higher at constant exchange rates, with restructuring activities at the Netherlands site having started in the final quarter of the year. General and administrative is reported net of a \$24 million currency hedging gain under the EBITDA hedging program compared with \$8 million in 2014. General and administrative excluding restructuring and impairment was 69 percent lower than 2014 including the hedging gains and at constant exchange rates was 1 percent higher.

Restructuring costs in 2015 decreased by \$8 million compared with 2014 and in 2015 related largely to the AOL program. Restructuring costs in 2014 were due to continuing restructuring of the Flowers business, including initiatives to improve efficiency as part of the AOL program.

Operating income as a percentage of sales increased by approximately 5 percentage points to 19 percent. Excluding restructuring and impairment, operating income as a percentage of sales increased by approximately 3 percentage points to 20 percent, 16 percent excluding the hedging gain; at constant exchange rates, operating income as a percentage of sales increased by approximately 1.8 percentage points.

#### **Defined Benefit Pensions**

Defined benefit pension expense was a charge of \$165 million in 2015 compared with a credit of \$36 million in 2014. After adjusting for the non-recurrence in 2015 of \$175 million of one-time gains in 2014 from plan amendments and settlements in the UK and Netherlands, pension expense increased by \$26 million, mainly due to a reduction in the discount rate used to measure expense for the Swiss pension plan, from 2.25 percent in 2014 to 1.25 percent in 2015, and to \$11 million of early retirement costs incurred in implementing the AOL program, partly offset by first year savings from the UK plan amendment and the reporting of Netherlands benefit expense as defined contribution rather than defined benefit. Syngenta expects 2016 defined benefit pension expense, excluding costs associated with restructuring, to be similar to 2015 expense at constant exchange rates, with the impact of a further reduction in the Swiss discount rate from 1.25 percent to 0.75 percent offset by savings from the restructuring actions undertaken in 2015.

Syngenta contributions to defined benefit pension plans were \$168 million in 2015 compared with \$185 million in 2014. The decrease is due to Syngenta having paid in 2014 a \$25 million additional lump sum contribution resulting from the 2013 Swiss plan amendment. No such additional contributions were made in 2015. In 2016, Syngenta expects contributions to defined benefit pension plans, excluding early retirement contributions associated with restructuring actions, to be approximately \$160 million.

### Restructuring and impairment

Restructuring and impairment charges for the years ended December 31, 2015 and 2014, broken down into the main restructuring initiatives, consist of the following:

(\$m)	2015	2014
Accelerating operational leverage programs:		
Cash costs	228	49
Pension curtailment gain	(21)	_
Non-cash impairment costs	33	14
Integrated crop strategy programs:		
Cash costs	27	61
Operational efficiency programs:		
Cash costs	_	18
Acquisition, divestment and related costs:		
Cash costs	91	27
Non-cash items		
Reversal of inventory step-ups	_	13
Fixed asset impairment	1	_
Other non-cash restructuring and impairment:		
Non-current asset impairment	29	24
Total restructuring and impairment <sup>1</sup>	388	206

<sup>1 \$\</sup>text{\$\sinil (2014: \$13 million) is included within Cost of goods sold and \$388 million (2014: \$193 million) as Restructuring within General and Administrative.

Restructuring represents the effect on reported performance of initiating and enabling business changes that are considered major and that, in the opinion of management, will have a material effect on the nature and focus of Syngenta's operations, and therefore require separate disclosure to provide a more thorough understanding of business performance. Restructuring includes the incremental costs of closing, restructuring or relocating existing operations, and gains or losses from related asset disposals. Restructuring also includes the effects of analyzing and preparing for potential industry consolidation transactions as well as completing and integrating significant business combinations and divestments, including related transaction costs, gains and losses. Recurring costs of normal business operations and routine asset disposal gains and losses are excluded.

Impairment includes impairment losses associated with major restructuring as well as impairment losses and reversals of impairment losses resulting from major changes in the markets in which a reported segment operates.

The incidence of these business changes may be periodic and the effect on reported performance of initiating them will vary from period to period. Because each such business change is different in nature and scope, there will be little continuity in the detailed composition and size of the reported amounts which affect performance in successive periods. Separate disclosure of these amounts facilitates the understanding of performance including and excluding items affecting comparability. Syngenta's definition of restructuring and impairment may not be comparable to similarly titled line items in financial statements of other companies.

T	able	e of	Con	tents

2015

Accelerating operational leverage programs

Cash costs of \$228 million, including \$127 million of severance and pension charges, consist of \$77 million for initiatives to restructure marketing and commercial operations, \$43 million for projects to drive efficiencies in territory commercial operations, \$48 million to rationalize logistical operations and optimize production capacity, \$36 million for Research and Development productivity projects, \$17 million for projects to increase the effectiveness of back office support services and \$7 million for project management. Non-cash impairment costs of \$33 million consist of tangible asset write-downs at three sites resulting from projects to rationalize logistical operations and optimize production capacity. The pension curtailment gain consists of the difference between the cash contributions payable on early retirements and the calculation of net pension curtailment costs according to IFRS, with regards to the Swiss defined benefit pension plan. Cash costs for early retirements are included in the cash costs of various projects described above.

Integrated crop strategy programs

Cash costs of \$27 million include \$20 million of charges for the transfer of certain system and process management activities to the internal service center in India, including \$11 million for information system projects, \$1 million to restructure the integrated Research and Development function, \$1 million to restructure the Human Resource organization and \$5 million of corporate headquarter and other costs.

Acquisition, divestment and related costs

Cash costs of \$91 million include \$8 million incurred to integrate previous acquisitions, mainly the German and Polish winter wheat and winter oilseed rape breeding and business operations of Lantmännen, PSB and MRI. A further \$83 million represents transaction charges, including costs related to potential industry consolidation transactions, such as the proposals received from Monsanto Company, as well as costs associated with the separation and planned divestment of the Flowers and Vegetables Seeds businesses announced during 2015; following an internal review, Syngenta decided in 2016 not to pursue the divestments. The impairment relates to fixed assets acquired with the German and Polish winter wheat and winter oilseed rape breeding and business operations of Lantmännen.

Other non-cash restructuring

Other non-current asset impairment of \$29 million includes \$20 million to impair the assets of a seeds crop where expectations of future operating profitability have reduced, \$7 million of impairment of exclusive distribution rights where the distribution agreement has been terminated and \$2 million for two other intangible asset impairments.

2014

Accelerating operational leverage programs

In February 2014, Syngenta commenced the restructuring program to drive further improvements in operating income margins and accelerate delivery of operational leverage as sales grow. 2014 cash costs of \$49 million included \$14 million for initiatives to restructure marketing and commercial operations, \$13 million for projects to drive efficiencies in territory commercial operations, particularly in Latin America, \$11 million to rationalize logistical operations and optimize production capacity, \$5 million for Research and Development productivity projects, and \$6 million for project management. Non-cash charges consisted of \$1 million for the impairment of a site, which was closed, and \$13 million for inventory write-downs due to a significant rationalization of the Vegetables product range.

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Integrated crop strategy programs

Cash costs of \$61 million included \$24 million of charges for the transfer of certain system and process management activities to a new internal service center in India, including severance and pension costs of \$11 million, \$25 million for the development and rollout of processes and training programs for marketing the integrated Crop Protection and Seeds product offers and related commercial reorganization, \$4 million for information system projects, \$4 million to restructure the integrated Research and Development function, \$2 million to restructure the Human Resource organization and \$2 million for legal entity rationalization projects.

Operational efficiency programs

The operational efficiency restructuring programs announced in 2004 and 2007 were substantially complete. The final expenditures of \$18 million in 2014 largely related to the rollout of standardized and outsourced human resource support services.

Acquisition, divestment and related costs

Cash costs of \$27 million included \$21 million incurred to integrate previous acquisitions, mainly Devgen, MRI, PSB, and the Polish and German winter wheat and oilseed rape breeding and business operations of Lantmännen. A further \$6 million consisted of transaction costs, including those related to uncompleted transactions. Reversal of inventory step-up related to the MRI and PSB acquisitions.

Other non-cash restructuring

Other non-cash restructuring consisted of \$20 million of fixed asset impairments, including \$14 million for plant and machinery in Brazil and Canada due to significant changes in production processes and \$6 million for development costs of major plant expansion projects that were subsequently aborted, and \$4 million for the impairment of loan notes related to strategic venture capital investments.

Financial expense, net

Financial expense, net increased to \$256 million in 2015 from \$217 million in 2014. Currency related financial expenses in 2015 of \$215 million were \$76 million higher than 2014 reflecting the higher cost of hedging in emerging markets and increased exposures in Latin American countries due to later receivable collections. Net interest expense of \$19 million in 2015 was \$24 million lower than in 2014 with lower levels of average gross debt in 2015 and more recent debt issuances at lower interest rates than the debt they replaced.

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Taxes

Syngenta's effective tax rate in 2015 was 16 percent, 2 percent higher than the 14 percent effective tax rate for 2014. Syngenta's Swiss statutory tax rate was 22 percent in both years. Income taxed at different rates reduced the effective tax rate by 8 percent in 2015, compared with 4 percent in 2014, with a higher weighting of income subject to a lower tax rate, including in Switzerland where certain intellectual property income is subject to tax at a reduced rate; total income before taxes in Switzerland was 53 percent of group income before tax in 2015 compared with 33 percent in 2014. Tax deduction for amortization and impairments not recognized for IFRS reduced the tax rate by 2 percent (3 percent in 2014) due to the impairment of the shares held by several group companies in subsidiaries resulting from a decrease in the value of the subsidiaries as determined under local GAAP, due in part to weaker exchange rates of the functional currency of the subsidiaries. Changes in prior year estimates and other items increased the tax rate by 4 percent in 2015, compared with reducing the tax rate by 2 percent in 2014, due to a change in the tax treatment of certain costs in the US in 2015. Non-recognition of deferred tax assets increased the tax rate by 5 percent in 2015 (3 percent in 2014) mainly due to deferred tax assets in parts of Latin America where the criteria for recognizing deferred tax assets is not met because of local currency weakness and weak economic conditions; conversely an improvement in profitability in operations in Russia and the Ukraine contributed to a 2 percent reduction in the tax rate from recognition of previously unrecognized deferred tax assets (1 percent in 2014).

The tax rate on restructuring and impairment was 23 percent in 2015, compared with 18 percent for 2014 due to the different mix of gains and losses included in the net charge over the period and the varying tax treatments applied in different countries. Future rates applicable to restructuring and impairment will be dependent on the nature and size of the charges and may vary from year to year.

Net income for the period and other supplementary income data

Net income attributable to Syngenta shareholders in 2015 was \$1,339 million, 17 percent lower than the 2014 amount of \$1,619 million. Sales were 11 percent lower due to weaker foreign currency exchange rates relative to the US dollar. Operating costs excluding Restructuring and impairment as a percentage of sales were 1.4 percentage points lower, but including the higher level of Restructuring and impairment were 0.2 percentage points higher. Operating costs in 2014 were net of a \$175 million gain recognized on changes to the UK and Netherlands pension plans. These combined to reduce operating income by 13 percent from 2014. As a result of the higher financial expense, net, and the increase in the effective tax rate, net income was 17 percent below 2014.

After related taxation, restructuring and impairment charges in 2015 were \$300 million compared with \$168 million in 2014 largely due to increased charges related to the AOL restructuring program announced in 2014 and increased acquisition, divestment and related costs, including those for advisors supporting Syngenta in the ongoing industry consolidation review and activities.

Results	of	operations
Itobuito	$\mathbf{o}_{\mathbf{I}}$	operanons

2014 compared with 2013

Sales commentary

Syngenta's consolidated sales for 2014 were \$15,134 million, compared with \$14,688 million in 2013, a 3 percent increase year on year. At constant exchange rates sales grew by 5 percent. The analysis by segment is as follows:

(\$m, except change %)			Change				
Segment	2014	2013	Volume	% Local price %	CER	% Currency	% Actual %
Europe, Africa and Middle East	4,547	4,223	7%	4%	11%	-3%	8%
North America	3,582	3,848	-8%	2%	-6%	-1%	-7%
Latin America	4,279	3,991	7%	2%	9%	-2%	7%
Asia Pacific	2,033	1,935	4%	6%	10%	-5%	5%
Total integrated	14,441	113,997	73%	3%	6%	-3%	3%
Lawn and Garden	693	691	0%	1%	1%	-1%	0%
Group sales	15,134	114,688	32%	3%	5%	-2%	3%

Europe, Africa and Middle East

Sales increased by 8 percent, 11 percent at constant exchange rates as volume increased by 7 percent and local currency sales prices increased by 4 percent. Sales growth was broad-based, with increases in all territories. The CIS registered strong volume growth in both Crop Protection and Seeds, with a particularly strong fourth quarter. Sales price increases offset around half of the currency loss following the sharp depreciation of the Russian ruble and the Ukrainian hyrvnia. The new SDHI fungicides contributed notably to growth in the region, with sales of SEGURIS® and VIBRANCE® both increasing by more than 75 percent. Sales growth was strong in the fourth quarter due to the expansion of the HYVIDO® hybrid barley solution, the consolidation of seeds acquisitions and from strong early demand for crop protection products for the 2015 growing season.

# North America

Sales decreased by 7 percent, 6 percent at constant exchange rates as volume decreased by 8 percent and local currency sales prices increased by 2 percent. The sales decrease largely was due to the prolonged cold temperatures in

the first half of the year, which delayed the start of the US season and reduced disease and insect pressure. In Canada, sales decreased as cereals acreage was lower and demand was further affected by flooding. Non-selective herbicide sales in the region decreased as a result of the deliberate reduction in sales of lower margin glyphosate. In seeds, soybean sales were higher due to increased acreage and increased bulk shipments under an early order program. Corn sales decreased due to reduced acreage. In late December, Chinese import approval for the AGRISURE VIPTERA® corn trait was secured.

#### Latin America

Sales increased by 7 percent, 9 percent at constant exchange rates as volume increased by 7 percent and local currency sales prices increased by 2 percent. Excluding glyphosate, sales at constant exchange rates increased by 15 percent. The sales growth occurred despite irregular rainfall, which caused some delays in planting and crop protection consumption. In Crop Protection, sales of the new fungicide ELATUS<sup>TM</sup> exceeded \$300 million following its launch in Brazil, where there was also strong insecticide growth due to severe caterpillar pressure in soybean, corn and cotton. Sales of crop protection products for sugar cane decreased due to drought during the summer and to lower ethanol prices affecting the profitability of sugar cane mills. Corn seed sales increased slightly despite lower acreage. Soybean increased significantly due to the combination of increased planted area and a gain in market share.

#### Asia Pacific

Sales increased by 5 percent, 10 percent at constant exchange rates as volume increased by 4 percent, and local currency sales prices increased by 6 percent. Growth occurred in both emerging and developed markets and was particularly strong in South Asia, China and Australasia. Increased fungicides sales reflected further adoption of AMISTAR® technology in China and new launches in South Asia. Sales growth was double-digit for GRAMOXONE® due to tight supply, particularly in ASEAN, but after a strong first half, sales in China were significantly lower in the second half of the year as a government ban on liquid paraquat formulations took effect. Sales of vegetables increased driven by further adoption of MAXVEG<sup>TM</sup> protocols as well as sweet corn seed growth in China and South Asia. In rice, sales grew due to products from the Devgen acquisition and expansion in India.

**Lawn and Garden**: major brands ICON®, GOLDFISCH®, GOLDSMITH SEEDS, YODER®, SYNGENTA FLOWERS

Lawn and Garden sales were flat compared with 2013 and increased by 1 percent at constant exchange rates due to increased local currency sales prices. Sales volume was flat as growth in emerging markets in Asia Pacific and Latin America was offset by challenging conditions in Flowers, particularly in Europe due to low consumer confidence in the key German and French markets and the impact of product portfolio streamlining to focus on high value chemistry and genetics. Turf and landscape sales increased with double digit growth in the fourth quarter, reflecting a recovery in the golf market that earlier in the year was affected by poor weather conditions in North America and Japan.

Sales by product line are set out below:

(\$m, except change %)	Change						
Product line	2014	2013	Volume %	Local price %	CER %	Currency	Actual
110duct IIIIc	2011	2013	, oranic , o	Zocai price 70	CLIT /C	%	%
Selective herbicides	3,083	3,051	0%	3%	3%	-2%	1%
Non-selective herbicides	31,445	1,545	-12%	8%	-4%	-2%	-6%
Fungicides	3,518	3,035	16%	1%	17%	-1%	16%
Insecticides	2,066	1,912	7%	3%	10%	-2%	8%
Seedcare	1,115	1,228	-8%	2%	-6%	-3%	-9%
Other crop protection	154	152	3%	1%	4%	-3%	1%
<b>Total Crop Protection</b>	11,381	10,923	3%	3%	6%	-2%	4%
Corn and soybean	1,665	1,654	1%	3%	4%	-3%	1%
Diverse field crops	827	842	0%	4%	4%	-6%	-2%
Vegetables	663	708	-10%	5%	-5%	-1%	-6%
<b>Total Seeds</b>	3,155	3,204	-2%	4%	2%	-4%	-2%

Elimination*	(95) (130) n/a	n/a	n/a	n/a	n/a
Total integrated	14,44113,9973%	3%	6%	-3%	3%
Lawn and Garden	693 691 0%	1%	1%	-1%	0%
Group sales	15,13414,6882%	3%	5%	-2%	3%

\*

Crop Protection sales to Seeds

**Crop Protection** 

**Selective herbicides**: major brands AXIAL®, CALLISTO® family, DUAL MAGNUM®, BICEP® II MAGNUM, FLEX®, FUSILADE®MAX, TOPIK®

Sales increased by 1 percent, 3 percent at constant exchange rates as local currency sales prices were increased by 3 percent and volume was flat. Sales in Europe, Africa and the Middle East, particularly AXIAL® on cereals and BICEP® II MAGNUM on corn, benefited from increased weed pressure caused by the mild winter in the region during the first half of the year. In North America sales of DUAL MAGNUM® for corn increased with strong growth in the second half of the year after some pre-emergent sprays were missed in the first half due to the late season. Sales of FUSILADE®MAX and FLEX® on soybean performed well in the USA and in Argentina, where weed resistance to glyphosate is spreading.

Non-selective herbicides: major brands GRAMOXONE®, TOUCHDOWN®

Sales decreased by 6 percent, 4 percent at constant exchange rates as the impact of deliberate reductions in sales volume of the low margin solo glyphosate product TOUCHDOWN® more than offset an 8 percent local currency sales price increase across Syngenta's non-selective herbicide portfolio. The reduction in TOUCHDOWN® decreased sales by approximately \$150 million. Sales of GRAMOXONE® increased as strong demand and tight supply resulted in volume and price increases, primarily in ASEAN and Latin America.

**Fungicides**: major brands ALTO®, AMISTAR®, BRAVO®, ELATUS™, REV®\$RIDOMIL GOLD®, SCORE®, SEGURIS®, TILT®, UNIX®

Sales increased by 16 percent, 17 percent at constant exchange rates as volume increased by 16 percent and local currency sales prices were increased by 1 percent. The main contribution to growth came from the new product ELATUS<sup>TM</sup>, based on the active ingredient Solatenol<sup>TM</sup>, which had strong first year sales in Brazil. Sales of SEGURIS the SDHI fungicide for cereals, grew strongly in Europe. Sales of AMISTAR® grew strongly in Europe but this was more than offset by lower sales in the Americas.

Insecticides: major brands ACTARA®, DURIVO®, FORCE®, KARATE®, PROCLAIM®, VERTIMEC®

Sales increased by 8 percent, 10 percent at constant exchange rates as volume increased by 7 percent and local currency sales prices were increased by 3 percent. Sales grew in all regions except North America, where sales decreased due to the late growing season and low pest pressure. Sales of DURIVO® exceeded \$400 million and grew significantly, particularly in Brazil due to strong pest pressure there in soybean, corn and cotton, including the spread of the *helicoverpa* caterpillar.

Seedcare: major brands AVICTA®, CRUISER®, DIVIDEND®, CELEST®/MAXIM®, VIBRANCE®

Sales decreased by 9 percent, 6 percent at constant exchange rates as volume decreased by 8 percent and local currency sales prices were increased by 2 percent. Lower Seedcare sales reflected reduced sales to other seed companies in the Americas, where reduced corn acreage and plentiful seed supply affected demand. Sales of CRUISER® also decreased due to the suspension of sales of neonicotinoids imposed in the European Union. Sales of VIBRANCE®, based on the SDHI fungicide sedaxane, continued to grow strongly with sales up by almost 50 percent.

Seeds

Corn and soybean: major brands AGRISURE®, GOLDEN HARVEST®, NK®

Sales increased by 1 percent, 4 percent at constant exchange rates as volume increased by 1 percent and local currency sales prices were increased by 3 percent. Sales volumes and local currency prices increased in Europe, Africa and Middle East led by the CIS. Sales in the Americas were flat, with both North and Latin America experiencing the shift from corn to soybean; soybean sales in Brazil benefited from a new business partner strategy. Sales of the AGRISURE VIPTERA® corn trait, where Chinese import approval was achieved at year end, remained steady at around 30 percent of US corn seed sales. The new proprietary corn rootworm trait DURACADE<sup>TM</sup> was planted for the first time in the USA under the "Right to Grow" program.

Diverse field crops: major brands NK® oilseeds, HILLESHÖG® sugar beet

Sales decreased by 2 percent but increased by 4 percent at constant exchange rates due to increased local currency sales prices; sales volume was flat. Sunflower sales decreased due to reduced acreage in South East Europe, partially offset by volume and local currency price growth in the CIS. Growth in Cereals sales was driven by Central Europe and was increased in the fourth quarter by consolidation of acquisitions. Lower sugar beet volumes in the USA were partially offset by growth in the CIS. In Asia Pacific, sales of rice increased reflecting sales from the Devgen acquisition as well as expansion in India.

**Vegetables**: major brands ROGERS®, S&G®

Sales decreased by 6 percent, 5 percent at constant exchange rates as volume decreased by 10 percent and local currency sales prices were increased by 5 percent. The volume decrease was attributable to the divestment of Dulcinea; excluding this divestment, sales at constant exchange rates increased by 6 percent. Asia Pacific sales grew by double digits driven by sweet corn and sweet peppers in China and South Asia. Strong growth in the emerging markets of Africa and the Middle East continued with expanding melon and tomato sales. Sales increased in the developed markets in Europe due to local currency sales price increases. Excluding Dulcinea, sales in North America increased by 3 percent.

#### Operating income

Variances in the tables below reflect the profit impact of changes year on year. For example, an increase of sales or a decrease in costs is a positive variance and a decrease in sales or increase in costs is a negative variance.

Group Operating Income	Total as reported under IFRS		Restructuring and impairment	Before resi	U	Change b	ring and
(\$m, except change %)	2014	2013	2014 2013	3 2014	2013	Actual %	CER %
Sales	15,134	14,688		15,134	14,688	3 %	5 %
Cost of goods sold	(8,192)	(7,986)	(13 ) –	(8,179)	(7,986)	-2 %	-3 %
Gross profit	6,942	6,702	(13 ) –	6,955	6,702	4 %	8 %
as a percentage of sales	46 %	46 %	, – – –	46 %	46 %		
Marketing and distribution	(2,497)	(2,394)		(2,497)	(2,394)	-4 %	-8 %
Research and development	(1,430)	(1,376)		(1,430)	(1,376)	-4 %	-5 %
General and administrative	(910 )	(846)	(193) (179	) (717 )	(667)	-7 %	-10 %
Operating income	2,105	2,086	(206) (179	) 2,311	2,265	2 %	9 %
as a percentage of sales	14 %	14 %	Ó	15 %	15 %		
Operating Income/(Loss)							
(\$m, except change %)					2014	2013	Change %
Europe, Africa and Middle East					1,456	1,430	2 %
North America					901	1,047	-14 %
Latin America					1,069	1,015	5 %
Asia Pacific					560	534	5 %
Non-regional	&nb						