

## FRUIT & VEGETABLE SEED MARKET

**BY TYPE** [Brassica (Cabbage, Cauliflower, Broccoli), Cucurbit (Cucumber, Melons, Squash), Leafy (Lettuce, Spinach), Root-Bulb (Onion, Carrot) & Solanaceae (Pepper, Eggplant, Tomato)]

**— Global Trends & Forecast to 2018**



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# 1 EXECUTIVE SUMMARY

The global fruit and vegetable seed market has grown exponentially in the last few years and this trend is expected to continue. The factors such as demand for nutritional food, environment friendliness, innovative production practices, new product offerings, and advent of modernization of agriculture are increasing the market for seed industry, globally. The seed market is primarily driven by the consumption of its end products and is gaining awareness among the farmers. Brassica seed and cucurbit seed are the key segments of the global fruit and vegetable seed market. Globally cultivated major brassica crops are cabbage, cauliflower, broccoli, and cucurbit crops are melon, watermelon, cucumber, and Solanaceae crops are pepper, eggplant, tomato, and others. The major market share is covered by Solanaceae crops. This report is segmented in five major regions, which are North America, Europe, Asia-Pacific, Latin America, and ROW. Europe is the most dominating region in this market.

**TABLE 1**

## **FRUIT & VEGETABLE SEED: MARKET REVENUE, BY GEOGRAPHY, 2013 – 2018 (\$MILLION)**

Region	2011	2012	2013-e	2018-p	CAGR% (2013-2018)
North America	XX	XX	XX	XX	XX
Europe	XX	XX	XX	XX	XX
Asia-Pacific	XX	XX	XX	XX	XX
Latin America	XX	XX	XX	XX	XX
ROW	XX	XX	XX	XX	XX
Total	XX	XX	XX	XX	XX

e – Estimated; p – Projected

Source: Expert Interviews, Related Research Publication, Government Publication, Company Publication, and MarketsandMarkets Analysis

The global fruit and vegetable seed market was valued at \$XX million in 2012 and is projected to grow at a CAGR of XX% from 2013 to 2018, to be valued at \$XX million by 2018. Europe led the market in 2012; while Latin America is the fastest growing region with a CAGR of XX% during the period under review. North America was the second largest seed market, contributing XX% of the market share, in 2012.

The fruit and vegetable seed market is dominated by few global players, such as Monsanto (U.S.), Syngenta (Switzerland), Bayer CropScience (Germany), Limagrain (France), Takii & Co. Ltd (Japan), Sakata Seed Corp (Japan), and RijkZwaan De Lier (The Netherlands), etc. Agreements and partnerships between seed manufacturers and agriculture input companies have given new dimensions to this market; thus, leading its future growth.

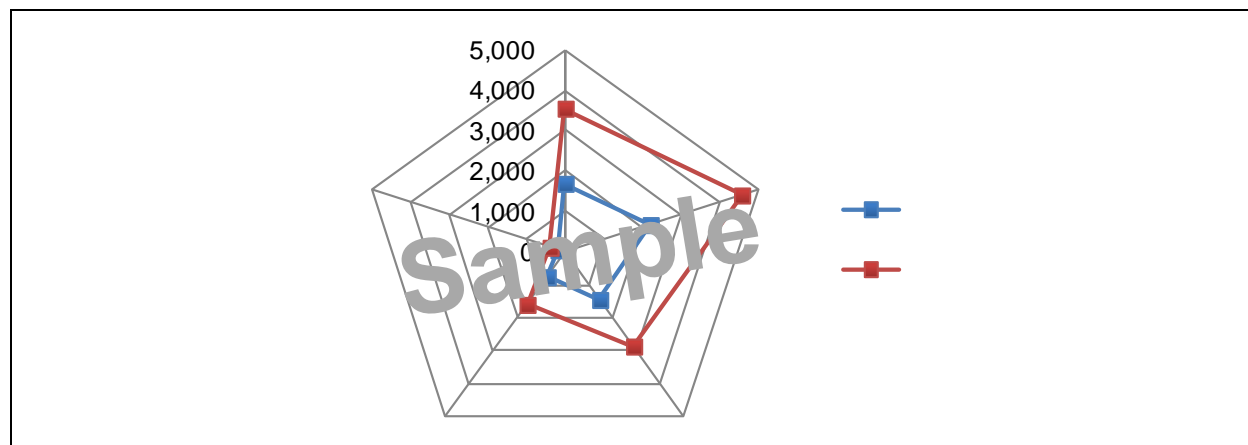
## 2 PREMIUM INSIGHTS

### 2.1 EUROPE: LARGEST FRUIT & VEGETABLE SEED MARKET

Europe was the largest market for the fruit and vegetable seed market in 2012 and was followed by North America and Asia-Pacific. France covered XX% of the European market in 2012. The global fruit and vegetable seed market is growing with a CAGR of XX% from 2013 to 2018.

FIGURE 1

#### FRUIT & VEGETABLE SEED: MARKET REVENUE, BY GEOGRAPHY, 2012 – 2018 (\$MILLION)



p – Projected

Source: Expert Interviews, Related Research Publication, Government Publication, and MarketsandMarkets Analysis

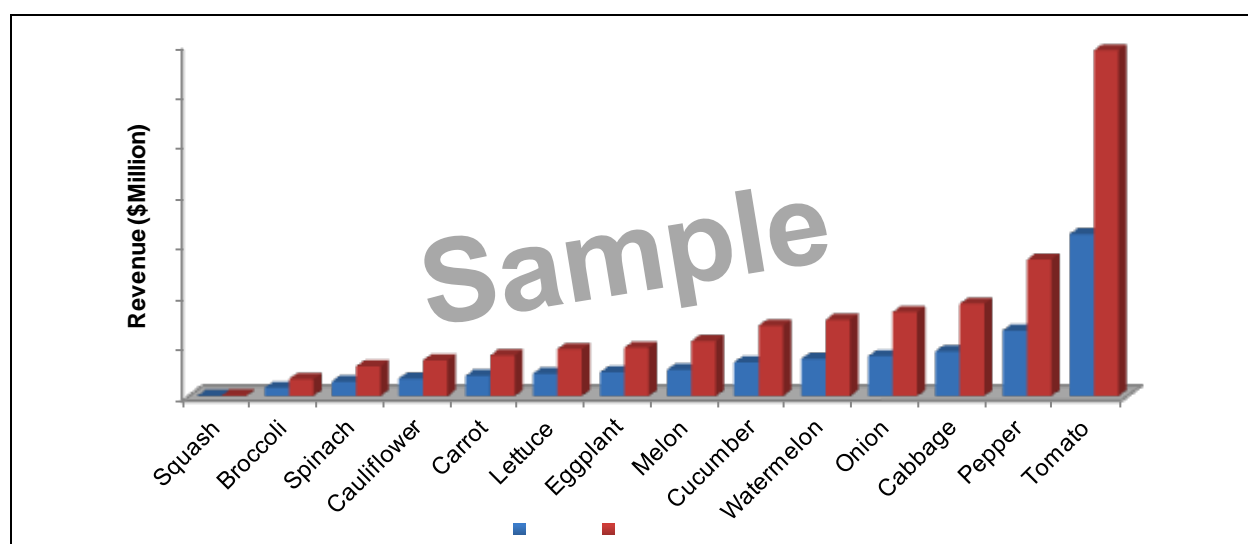
Europe is projected to have a lead on global fruit and vegetable seed market by 2018. Europe contributed XX% to the fruit and vegetable seed market in 2012; whereas, North America and Asia-Pacific contributed to XX% and XX%, respectively. European market is projected to reach \$XX million by 2018 growing at CAGR of XX% during the forecast period.

## 2.2 TOMATO: LEADING MARKET SEGMENT

In 2012, tomato accounted for XX% and followed by pepper that held XX% share, in fruit and vegetable seed market. Cabbage, water melon, cucumber, and onion are the main fruit and vegetable seeds.

FIGURE 2

### FRUIT & VEGETABLE SEED: MARKET REVENUE, BY CROP, 2012 – 2018 (\$MILLION)



p – Projected

Source: Expert Interviews, Related Research Publication, Government Publication, and MarketsandMarkets Analysis

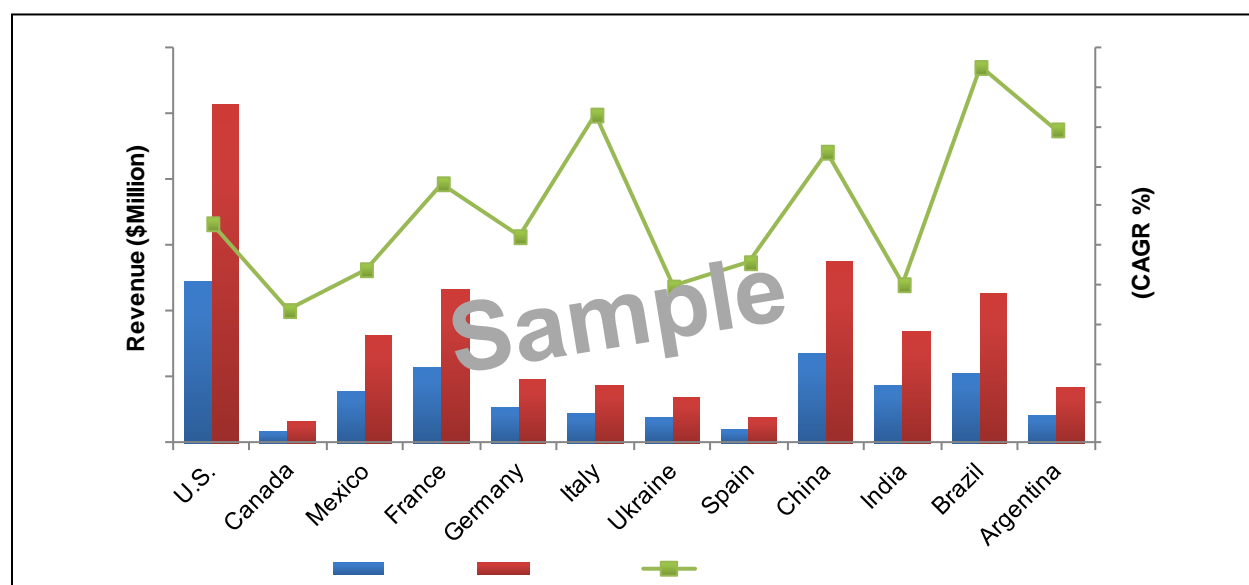
Tomato had the largest market share in the fruit and vegetable seed market in 2012; it was \$XX million and is projected to reach \$XX million by 2018, growing with a fastest CAGR of XX% during the forecast period.

## 2.3 BRAZIL: FASTEST GROWING MARKET

Brazil is projected to be the fastest growing market across the world, in fruit and vegetable seed market, with a CAGR of XX% from 2013 to 2018. China, India, Brazil, and France are the major markets for fruit and vegetable seed.

FIGURE 3

### FRUIT & VEGETABLE SEEDS: MARKET REVENUE, BY COUNTRY, 2012 – 2018 (\$MILLION)



p – Projected

Source: Expert Interviews, Related Research Publication, Government Publication, Company Publication, and MarketsandMarkets Analysis

Brazilian market was \$XX million in 2012 and is projected to reach \$XX million by 2018, growing at a CAGR of XX% during the forecast period. U.S. held XX% of the North American region and France contributed XX% to the European region.

## **3 MARKET OVERVIEW**

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### **3.1 MARKET STATISTICS**

#### **3.1.1 SUB-MARKET**

##### **3.1.1.1 Organic fruits and vegetables**

Fresh fruits and vegetables are the most common organic products sold in the market. These are relatively easily available in the wide varieties; hence, their market size is large. There has been consistent increase in the sales of organic fruits and vegetables in retail stores. According to the estimates, sale was doubled in the U.S. market from 2003 to 2009. High sale of fresh produce is a result of easy availability in the domestic market and less price difference as compared to their conventional counterparts.

#### **3.1.2 RELATED MARKETS**

##### **3.1.2.1 Oilseed & grain seed market**

Oilseed and grain seed controls the major portion of the global seed market. The key oilseed crops cultivated across the globe are soybean, canola, sunflower, and cotton. The foremost grain crops are corn, wheat, rice, and millet (sorghum). Factors, such as increasing consumption and growing demand for food, have exerted pressure on the global seed industry.



**TABLE 2**

**OILSEED & GRAIN SEED: MARKET REVENUE, BY GEOGRAPHY,  
2011 — 2018 (\$MILLION)**

Region	2011	2012	2013-e	2018-p	CAGR% (2013-2018)
North America	XX	XX	XX	XX	XX
Europe	XX	XX	XX	XX	XX
Asia-Pacific	XX	XX	XX	XX	XX
Latin America	XX	XX	XX	XX	XX
ROW	XX	XX	XX	XX	XX
Total	XX	XX	XX	XX	XX

e – Estimated; p - Projected

Source: Expert Interviews, Related Research Publication, Government Publication, and MarketsandMarkets Analysis

Global oilseed and grain seed market was valued at \$XX million in 2012. North America has largest market share with XX% in global oilseed and grain seed market and was \$XX million in 2012 which is expected to reach \$XX million by 2018, growing at CAGR of XX%. In Latin America, the oilseed and grain seed market is the fastest growing with XX% CAGR; it was \$XX million in 2012 and is expected to reach \$XX million by 2018.

## 4 MARKET ANALYSIS

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### 4.1 MARKET DYNAMICS

#### 4.1.1 MARKET DRIVERS

##### 4.1.1.1 Adoption of precision farming & protected agriculture

Precision farming is a practice of cultivation of crops under the management concept based on observing, measuring, and responding to inter and intra-field variability in crops in order to achieve maximum profitability. The area under precision agriculture is rapidly rising in U.S., Mexico, France, Argentina, Brazil, and other countries. The precision farming enables use of high-tech seeds for judicious use of other resources. Thus, the increasing area under precision agriculture is driving the fruit and vegetable seed market. The global area under protected agriculture is around XX million and it is increasing at higher pace. Europe dominates in the protected cultivation contributing around XX% of the area followed by Asia-Pacific. The cultivation of vegetable dominates the total protected crop cultivation.

#### 4.1.2 MARKET OPPORTUNITY

##### 4.1.2.1 Fruit & vegetable seed with biotech trait

Plants can be improved by modifying their genotype. Biotech crops were first commercialized in U.S. and five other countries in 1996. Estimated data specifies that U.S. farmers continue to grow more crops using biotechnology than any other country.

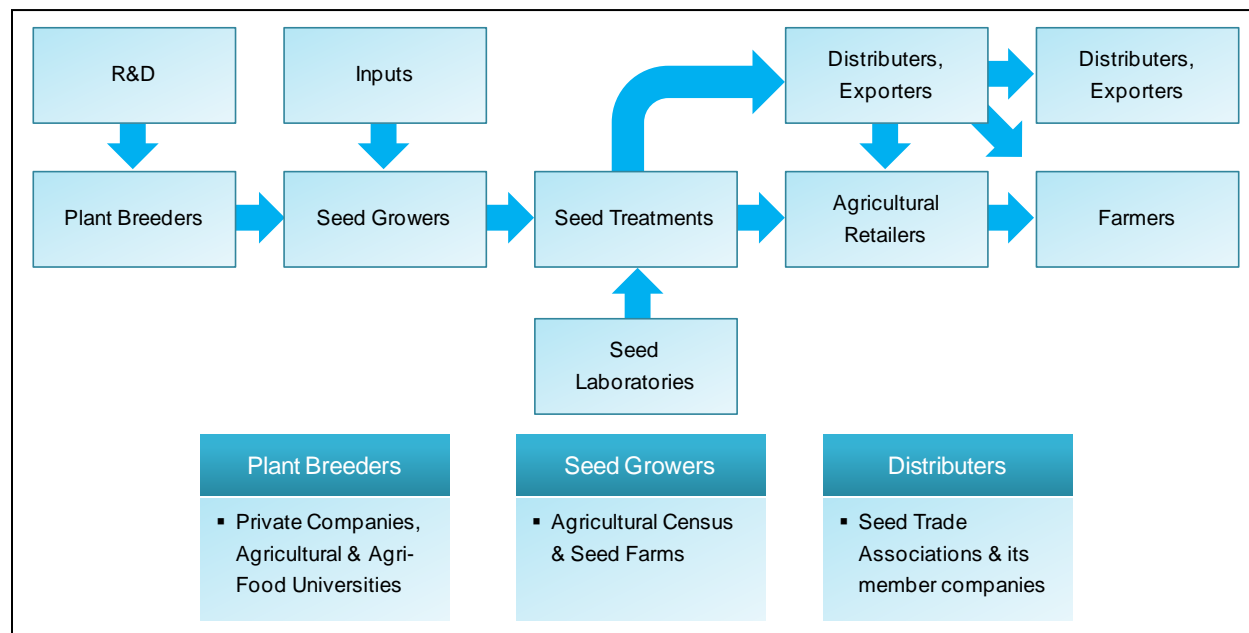
The long-term valuable positives of biotechnology on fruit and vegetable production are also recognized. Biotech fruit and vegetable production benefits farmers and processors by improving the economic efficiency of production. Biotechnology makes sure that the materials and methods involved in fruit vegetable production, is environment friendly. Trait seed for fruit and vegetable are negligibly present in the market. Trait seeds growth can be a new approach to penetrate in the global market to get better productivity of crops. This strategy can lead growers' as well as seed industry's profitability.

## 4.2 VALUE CHAIN ANALYSIS

R&D, technology, and access to inputs increases the productivity of seeds. Although treatment to seed at various stages adds cost, but also increases per unit production. This integrated value chain improves the regulatory frame work and institutional environment. Seed is the initial phase for growing crops that produces food and feed, for both domestic use and exports.

**FIGURE 4**

### FRUIT & VEGETABLE SEED: VALUE CHAIN ANALYSIS



Source: Related Research Publication, Government Publication, and MarketsandMarkets Analysis

The value chain of agricultural seed segment is described by six basic links- plant breeders, seed growers, seed treatment, seed distributors, agricultural retailers, and farmers. In case of exports, seeds are reconnected to foreign distributors and agricultural retailers; then ultimately reach to the farmers in foreign countries.

## 5 FRUIT & VEGETABLE SEED MARKET, BY TYPE

### 5.1 INTRODUCTION

#### 5.1.1 SOLANACEAE

**TABLE 3**

#### **SOLANACEAE VEGETABLES SEED: MARKET REVENUE, BY GEOGRAPHY, 2011 – 2018 (\$MILLION)**

Region	2011	2012	2013-e	2018-p	CAGR% (2013-2018)
North America	XX	XX	XX	XX	XX
Europe	XX	XX	XX	XX	XX
Asia-Pacific	XX	XX	XX	XX	XX
Latin America	XX	XX	XX	XX	XX
ROW	XX	XX	XX	XX	XX
Total	XX	XX	XX	XX	XX

e – Estimated; p – Projected

Source: Expert Interviews, Related Research Publication, Government Publication, Company Publication, and MarketsandMarkets Analysis

The global Solanaceae seed was valued at \$XX million in 2012 and is expected to grow at a CAGR of XX% to be valued at \$XX million by 2018. The market was led by Europe in 2012, which is estimated to be \$XX million and is expected to grow at a CAGR of XX% by 2018. The second largest consumer of Solanaceae seed was North America, in 2012. It is estimated to grow at a CAGR of XX% to be valued at \$XX million by 2018. Asia-Pacific market is projected to grow at a CAGR of XX% from 2013 to 2018, to reach \$XX million by 2018.

## 6 FRUIT & VEGETABLE SEED MARKET, BY GEOGRAPHY

### 6.1 EUROPE

TABLE 4

#### EUROPE: FRUIT & VEGETABLE SEED, MARKET REVENUE, BY COUNTRY, 2011 — 2018 (\$MILLION)

Country	2011	2012	2013-e	2018-p	CAGR% (2013-2018)
France	XX	XX	XX	XX	XX
Germany	XX	XX	XX	XX	XX
Italy	XX	XX	XX	XX	XX
Ukraine	XX	XX	XX	XX	XX
Spain	XX	XX	XX	XX	XX
Others	XX	XX	XX	XX	XX
Total	XX	XX	XX	XX	XX

e – Estimated; p – Projected

Source: Expert Interviews, Related Research Publication, Government Publication, Company Publication, and MarketsandMarkets Analysis

France was the largest fruit and vegetable seed market in Europe, with a share of XX% in 2012. It was \$XX million in 2012 and is projected to reach \$XX million by 2018, growing at a CAGR of XX% from 2013 to 2018. Germany had XX% market share in 2012 and is growing at a CAGR of XX% from 2013 to 2018. Seed market in Spain was \$XX million in 2012 and is projected to reach \$XX million by 2018, growing at a CAGR of XX% during the forecast period. Other European nations contributed XX% of seed market in 2012 and it was \$XX million in 2012.

## 7 COMPETITIVE LANDSCAPE

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### 7.1 NEW PRODUCT LAUNCHES: MOST PREFERRED STRATEGY

New product launch is found to be the most preferred growth strategy in fruit and vegetable seed market by leading companies accounting for XX% share of the total developments. The purpose of adopting this strategy was to increase the fruit and vegetable production with the help of seed treatments.

## 8 COMPANY PROFILES

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### 8.1 SYNGENTA AG

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#### 8.1.1 OVERVIEW

Established in 2000 and headquartered at Basel, Switzerland; Syngenta AG is an agribusiness company operating in crop protection and seeds businesses, globally. The company operates in three business segments—crop protection, seeds, and business development. They have R&D centers located at Stein (Switzerland), Jealott's Hill (U.K.), Research Triangle Park NC (U.S.), and Goa (India). They have developed the state-of-the-art manufacturing facilities in Switzerland, U.S., U.K., France, India, China, and Brazil.

Syngenta operates through its subsidiaries with a presence in 90 countries. The company operates worldwide, including Europe, North America, Latin America, Africa, Middle East, and Asia-Pacific. The company has about 27,262 employees as of 2012. Its major competitors are BASF SE (Germany), Bayer CropScience AG (Germany), Nufarm Limited (Australia), and Monsanto (U.S.).

#### 8.1.2 FINANCIALS

Syngenta reported revenue of approximately \$XX million in 2012, an increase of XX% over 2011.

**TABLE 5**

**SYNGENTA: MARKET REVENUE, BY BUSINESS SEGMENT,  
2011 – 2012 (\$MILLION)**

Business segment	2011	2012	%Change
Crop protection segment	XX	XX	XX
Seed segment	XX	XX	XX
Lawn and Garden	XX	XX	XX
Total	XX	XX	XX

Source: Company Annual Report, and MarketsandMarkets Analysis

The company reported total revenue of \$XX million in 2012, an increase of XX% as compared to 2011. Syngenta's seed segment reported about \$XX million in 2012, an increase of XX% over 2011.

**TABLE 6**

**SYNGENTA: MARKET REVENUE, BY GEOGRAPHY,  
2011 – 2012 (\$MILLION)**

Region/country	2011	2012	%Change
Europe/Africa/Middle East	XX	XX	XX
North America	XX	XX	XX
Latin America	XX	XX	XX
Asia-Pacific	XX	XX	XX
Total	XX	XX	XX

Source: Company Annual Report, and MarketsandMarkets Analysis



Syngenta reported maximum growth of XX% in the North American region for 2012 over 2011.

### 8.1.3 PRODUCTS & SERVICES

Syngenta breeds, produces, and markets superior quality vegetable seed. The vegetable segment operates globally under regional brands, such as S&G, Rogers, and Dulcinea. The vegetable seed portfolio includes tomato, pepper, sweet corn, watermelon, melon, brassica (cabbage, cauliflower, etc.), cucumbers, and salad vegetable.

### 8.1.4 STRATEGY

The company entered into a few agreements and partnerships to expand its research ability. The company is collaborating with other companies as a part of its customer focus strategy by ensuring that the end product meets the needs of the consumers. It acquired other seed companies to strengthen its business. The company launched new products and obtained approvals for its products in different regions, thereby increasing its market presence worldwide.

### 8.1.5 DEVELOPMENTS

Date	Approach	Description
September 2012	Investment	The company signed a Letter of Intent to invest up to \$XX million in the construction of a hybrid seed and crop protection production facility in Russia. Subject to obtaining the necessary local permits and approvals, Syngenta expects to begin the production of hybrid seeds by 2015 and of crop protection products by 2016.
May 2012	Expansion	The company plans to expand its business in Africa, by investing \$XX million to develop distribution channels, logistics, and local production facilities.
May 2011	Investment	The company will invest \$XX million for the new genetics research facility at Research Triangle Park, North Carolina (U.S.) to accelerate R&D of new agronomic traits for innovative

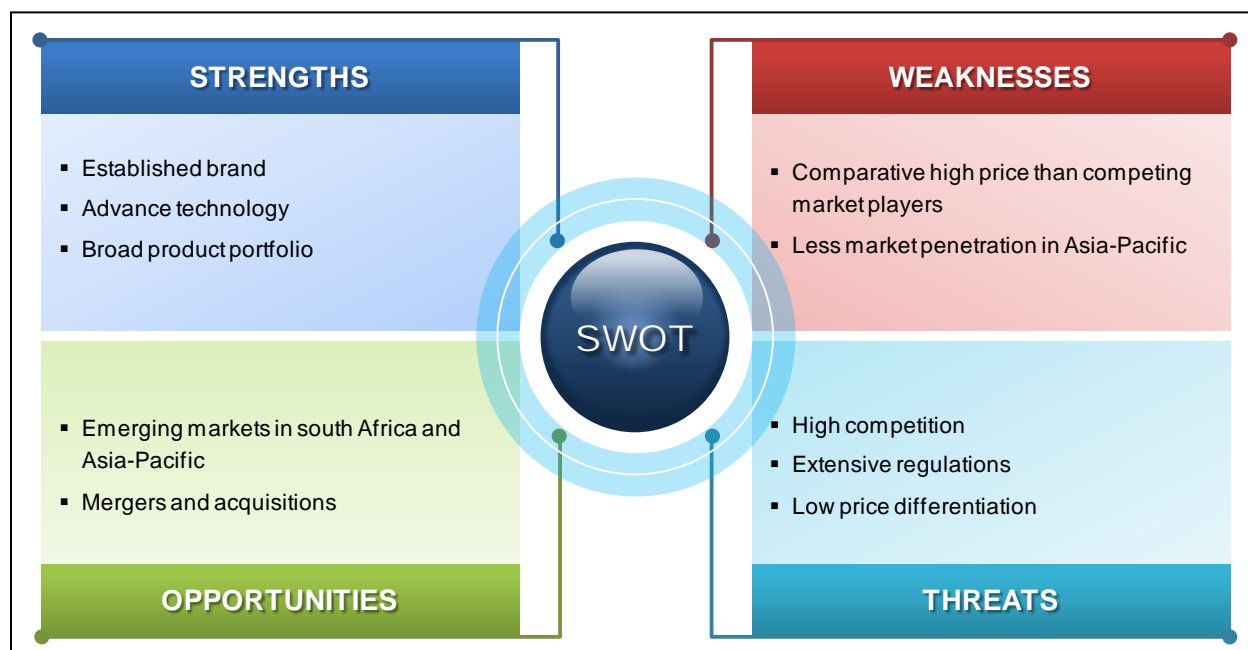
Date	Approach	Description
		solutions to growers across the world.
May 2010	Acquisition	The company acquired Maribo Seed sugar beet business from Nordic Sugar (Denmark), a subsidiary of Nordzucker AG (Germany) to strengthen its position in sugar beet across Europe. The deal includes the seed production and sales activities of Maribo Seed as well as the Maribo brand name.
November 2009	Acquisition	The company acquired two U.S. based lettuce seed companies, Synergene Seed & Technology Inc. and Pybas Vegetable Seed Co., Inc. The acquisitions will strengthen the position for Syngenta in North American lettuce market and will expand their lettuce development portfolio in Europe and Asia.
October 2009	Investment	The company has invested in U.S. biotech company Metabolon with focus on the use of metabolomics in research and diagnostics. This will involve in-house R&D work and enables the use of promising technologies and innovative products with external partners.

Source: Company Press Release, Company Publication, and MarketsandMarkets Analysis

### 8.1.6 SWOT ANALYSIS

FIGURE 5

#### SYNGENTA: SWOT ANALYSIS



Source: MarketsandMarkets Analysis

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