

Revisiting seed company sales and profit: Results

FAO 2024, Rome, Italy

Dr. Jonathan Shoham,
Consulting Analyst, Crop Science

September 16, 2024



2019 study in partnership with the FAO

ANALYSIS OF SALES AND PROFITABILITY WITHIN THE SEED SECTOR

Independent Report prepared for:

Co-chairs of the Ad-hoc Open-ended Working Group to enhance the functioning of the Multilateral System of Access and Benefit-sharing of FAO's International Treaty on Plant Genetic Resources for Food and Agriculture

ANALYSIS OF SALES AND PROFITABILITY WITHIN THE SEED SECTOR

For the purposes of citation, please refer to this report as:

ANALYSIS ON SALES AND PROFITABILITY WITHIN THE SEED SECTOR:

INDEPENDENT REPORT BY IHS MARKIT (PHILLIPS MCDUGALL) FOR THE CO-CHAIRS OF THE AD-HOC OPEN-ENDED WORKING GROUP TO ENHANCE THE FUNCTIONING OF THE MULTILATERAL SYSTEM OF FAO'S INTERNATIONAL TREATY ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

Report submitted: 7 November 2019

Report prepared for: Co-chairs of the Ad-hoc Open-ended Working Group to enhance the functioning of the Multilateral System of Access and Benefit-sharing of FAO's International Treaty on Plant Genetic Resources for Food and Agriculture

Report prepared by: IHS Markit Agribusiness Consulting

Contacts:

Dr Edward Oliver
Head of Agribusiness Consulting for EMEA
Agra CEAS Consulting (an IHS Markit Company)
edward.oliver@ihsmarkit.com

Dr Jonathan Shoham
Senior Consulting Analyst
Phillips McDougall (part of IHS Markit)
jonathan.shoham@ihsmarkit.com

Agenda

About S&P Global Agribusiness

The seed market

Seed company sales

Seed company profitability

Crop analysis

R&D

Conclusions

About S&P Global Agribusiness



Source: Getty Images.

S&P Global

30,000+ people, serving 50,000+ customers, in 140+ countries

Assessments & Benchmarks

We engage with market participants and evolve rigorous methodologies to develop assessments and benchmarks that reflect a commodity's true value. Along with news and market commentary, our assessments help you make successful trading decisions and manage risk.

Data & Analytics

We integrate analysis and data sets across geographies, commodities and the supply chain for meaningful intelligence that helps you identify and adjust to market disruptions, make decisions with confidence and take action that matters.

Workflow Solutions

We partner with you to enhance workflows, increase efficiency and optimize business processes by leveraging AI-driven software and applications, integrated platforms and machine delivery.

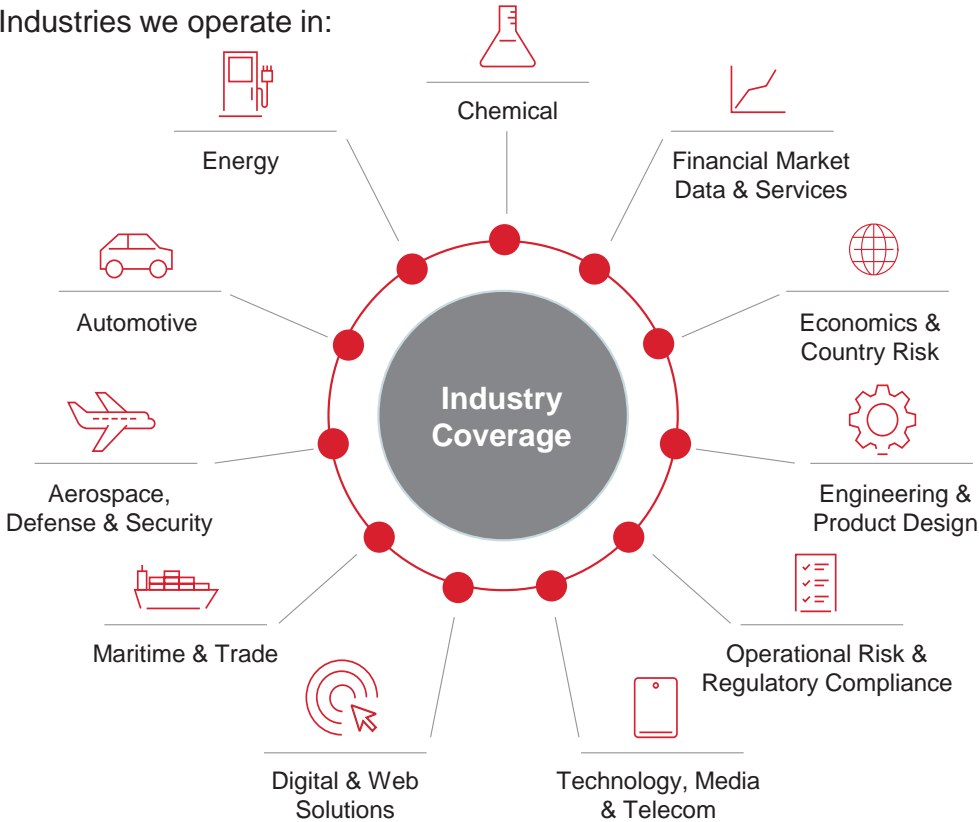
Research & Insights

We develop deep, interconnected industry analysis and forecasts across the full energy and commodities value chain. Subscriptions to our independent, broad, and real-time market insights and analysis include access to analysts and SMEs.

Conferences & Advisory Solutions

We provide bespoke consulting services on current challenges such as renewables and energy transition, and host education sessions, webinars, and marquee events, including CERAWEEK, World Petrochemical Conference, Global Power Markets, and APPEC.

Industries we operate in:



With **premier brand**
and offerings that
influence and empower
industry leaders



S&P Capital IQ **PRO**

Ratings360

CERAWEEK[®]
by S&P Global

Dow Jones
Sustainability Indices

Platts Connect

Crop Science — Market Analysis

Agrochemical Market Analysis: Our market-leading service provides annual analysis and forecasting of the crop protection market from the perspective of crops, companies, country markets, products, and research and development. It also includes a searchable product directory of every important agrochemical and major biological pesticides, including those in the research pipeline.

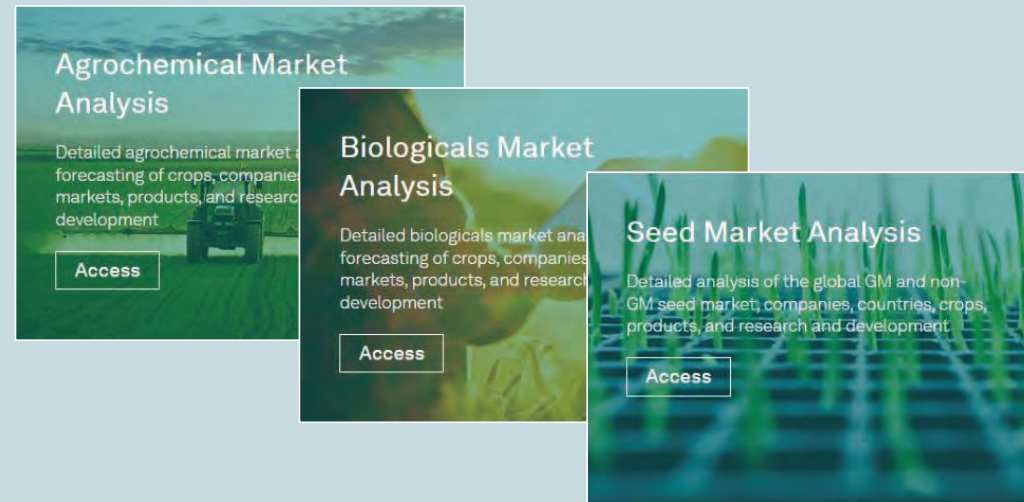
Biologicals Market Analysis (NEW): Our new biologicals service provides annual analysis and forecasting of the biologicals market from the perspective of crops, companies, country markets, products, and research and development.

Seed Market Analysis: Our market-leading service provides a 10-year view of the seed industry, with five years of historical data and analysis and market expectations for the next five years. Covers seed companies, countries, products and crop markets, including commercialized GM and non-GM seed products and those still in research and development stage.

Source: S&P Global Connect platform.

S&P Global
Commodity Insights

Revisiting seed company sales and profit: Results / FAO / September 16, 2024



These services enable clients to:

- Identify growth markets to focus on strategically by analyzing historical market trends and looking ahead to 2032.
- Increase the accuracy of internal forecasting and inform market strategy with detailed competitor performance intelligence.
- Determine which crop areas and product sectors are driving demand to consider aligning product pipelines to.

Crop Science — Seed-focused services

Seed Market Analysis

Overview

Seed Market Overview 2022

22 Jun 2023 - Crop Science | Scheduled Update

Seed Market Overview 2021

29 Jun 2022 - Crop Science | Profile

Seed Market Overview 2020

8 Jun 2021 - Crop Science | Scheduled

Companies

Corteva Agriscience 2023

14 Mar 2024 - Crop Science | Profile


Company Section Report - 2022

10 Jan 2024 - Crop Science | Scheduled Update


Countries

Australia Seed Market 2022

27 Feb 2024 - Crop Science | Profile



Gene Editing 2023



Global Vegetable Seed Markets 2024

Seed Market Data

Executive summary | Breeder data | Varieties

Year: 2018 - 2022

Country: All

Seed Innovation Service

Learn More about Seed Innovation Service

Contact Sales

Call Us at +1 8556823058

Segment Granular View												
Year	Geography	Crop Group	Breeder	Seed company	Variety / hybrid	Trait Technology	Average of Seed density (kg/ha)	Average of Price (\$/kg)	Average of Costs (\$/ha)	Area Cultivated (000 ha)	Volume (000 kg)	Value (US\$ m)
2018	Argentina	Cereals	DonMario	DonMario	Algarrobo		120.66	0.22	27.04	1,299	156,725	35
2018	Argentina	Cereals	Quilmes SA	Quilmes SA	Andrea		112.58	0.21	23.38	792	89,134	19
2018	Argentina	Cereals	DonMario	DonMario	DM Ceibo		124.23	0.23	28.03	436	54,151	12
2018	Argentina	Cereals	Klein Karoo Seed	Klein Karoo Seed	KLEIN TAURO		126.56	0.24	30.77	395	50,002	12
2018	Argentina	Cereals	Jose Buck	Jose Buck	Buck Meteoro		105.63	0.29	30.80	343	36,261	11
2018	Argentina	Cereals	Lantmännen	Sursem S.A.	SURSEM		106.05	0.30	32.16	259	27,447	8

- Seed Market Analysis
- Seed Market Data
- Seed Innovation Service
- Special reports

Source: S&P Global Connect platform.

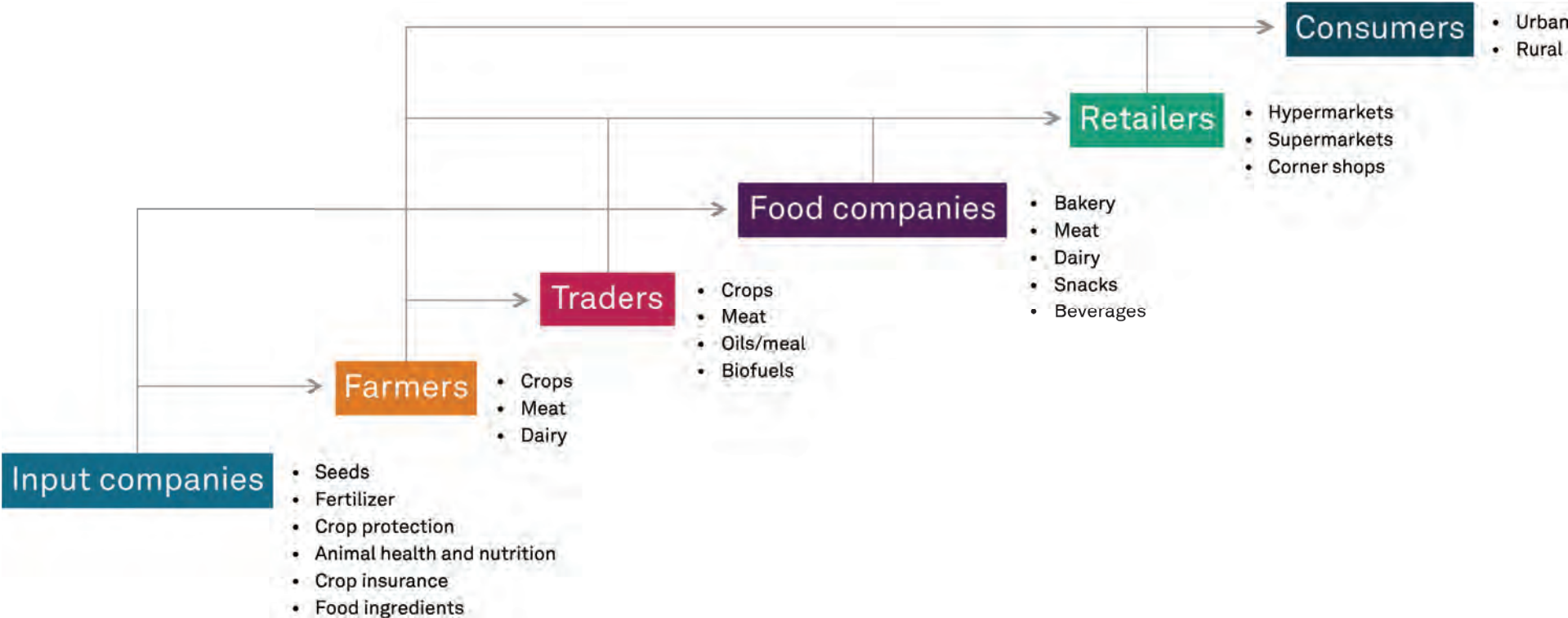


The seed market



Source: Microsoft stock image.

Seeds and the crop value chain



Source: S&P Global Commodity Insights.

Commercial seed market (\$M)

Commercial seed market 2018–2023 (\$M)						
	2018	2019	2020	2021	2022	2023
GM seed	20,929	19,274	19,522	21,924	23,932	25,835
Conventional seed	25,238	25,003	24,975	26,363	26,324	27,694
World seed market	46,167	44,278	44,497	48,288	50,257	53,529

GM accounts for almost 50%

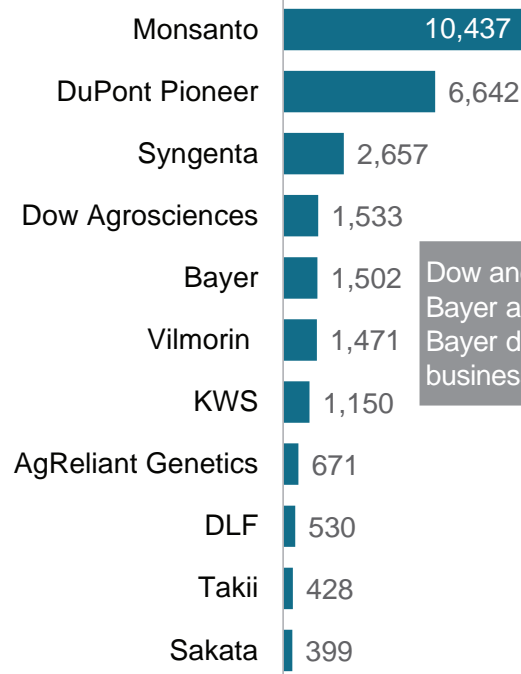
Data compiled Sep. 09, 2024.
Source: S&P Global Commodity Insights.

Changing seed industry structure

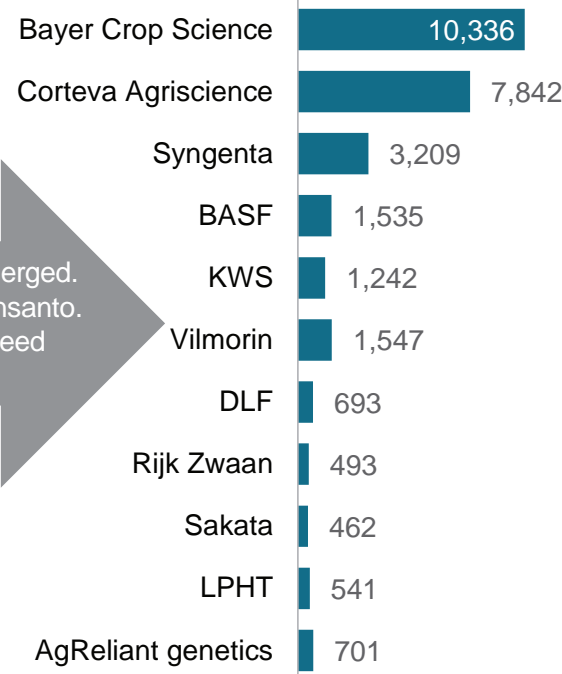
2016-2018: Top 5 became the Top 3; BASF entered

2019-2024: Relative stability

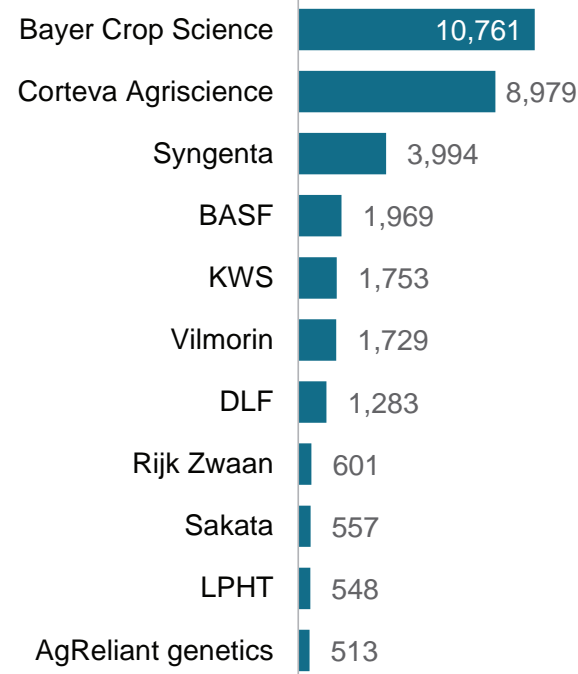
2016 sales (\$M)



2018 sales (\$M)



2022 sales (\$M)



Dow and DuPont merged. Bayer acquired Monsanto. Bayer divested its seed business to BASF.

Data compiled Sep. 09, 2024. Source: S&P Global Commodity Insights.

Three tiers of seed company

Tier 1

The R&D-based 'majors'
with sales
>\$500 million

Tier 2

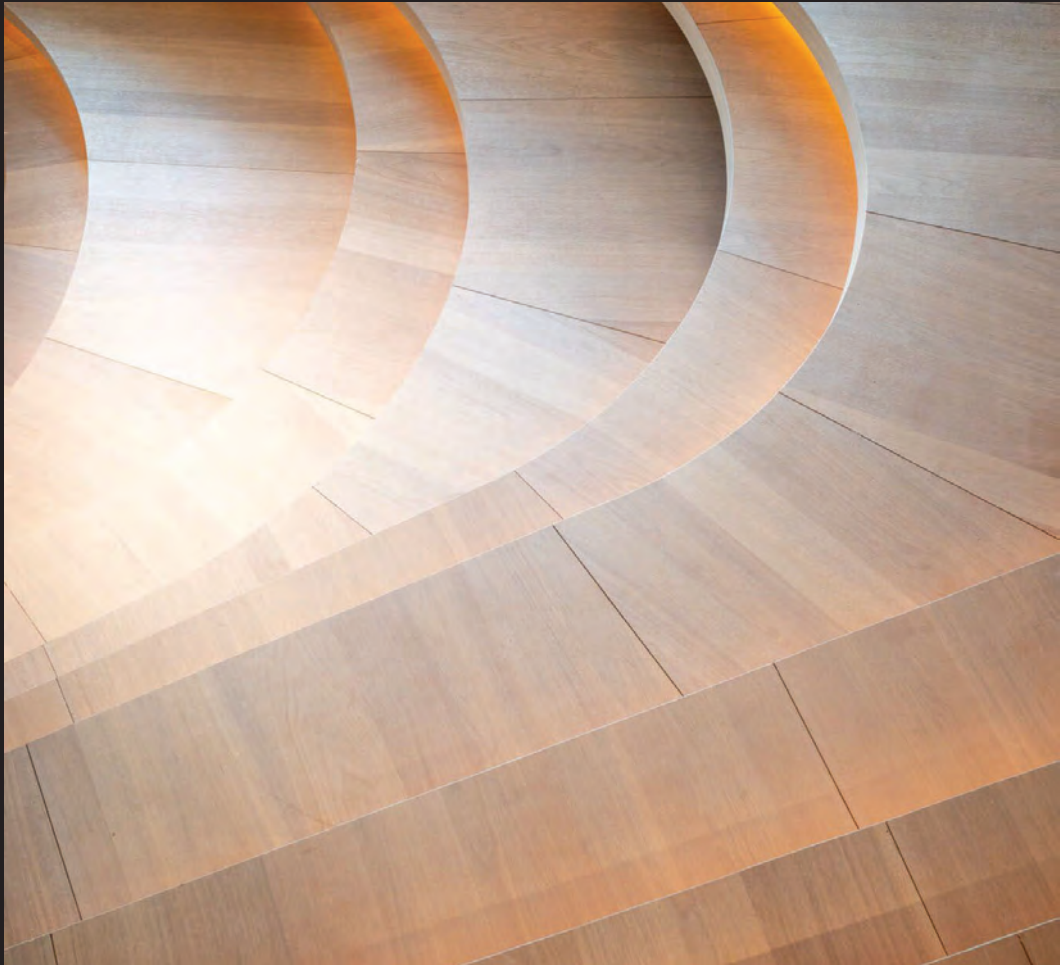
Mid-sized companies
with sales between
\$100 million and \$500 million

Tier 3

Small seed companies
with sales of
under \$100 million

Data compiled Sep. 09, 2024.
Source: S&P Global Commodity Insights.

Seed company sales



Source: Getty Images.

Three tiers of seed company

- Tier 1: The R&D-based 'majors' with sales >\$500M
- Tier 2: Mid-sized companies with sales between \$100M and \$500M
- Tier 3: Small seed companies with sales of under \$100M
 - 3a) \$50–99M
 - 3b) \$10–49M
 - 3c) <\$10M

2024 reassessment — greater breadth and depth

Comparison of databases in 2019 and 2024		
	# companies in 2019 study	# companies in 2024 study
Tier 1: >\$500M	10	12
Tier 2: \$100–\$499M	30	40
Tier 3a): \$50–\$99M	90	30
Tier 3b): \$10–49M		60
Tier 3c): <\$10M		25 with data; >1,000 without
Total	130	165 with data; >1,000 without

Data compiled Sep. 09, 2024.
Source: S&P Global Commodity Insights.

2024 reassessment — new sources

Service	Source	Details
SMA	Companies section	More profiles
	Crops section	Rice, cereals, vegetables added
	Countries section	New section: 15 country profiles and outlook/forecasts
New seed services	Innovations database	
	Vegetables report	
Custom research	Expanded database (breadth)	130 -> >1,000 companies
	Additional data (depth)	Capital IQ Spark Assist (LLM)
	Refined methodology	Additional indicators

Data compiled Sep. 09, 2024.

New sources in green.

Source: S&P Global Commodity Insights.

2024 reassessment — refined methodology

Indicators of company sales ranges		
Indicator	Significance	Data availability
Assets	The ratio of sales to assets for seed companies is commonly in the range 1–2.	Available in Capital IQ for many companies
Year of establishment	The relationship between manpower and sales is more likely to hold for older companies. Start-ups may well have significant manpower, but not yet have achieved sales.	Widely available
Crops in which the company operates	If a company only operates in crops with a smaller seed market, such as selected vegetables, its sales will be constrained, but its profitability may be higher.	Widely available
# varieties	The bigger the company the more crop varieties it is likely to have.	Available sometimes
Facilities	Facilities such as R&D centers or production facilities suggest larger size.	Widely available
Functions (R&D, production/multiplication, processing, marketing and distribution)	The degree of vertical integration of a company — the number of functions it performs — can be indicative of its size.	Widely available
Number of farmers contracted for seed multiplication	This will be an indicator for seed volumes.	Available sometimes
Seed volumes	If there is knowledge of the crop portfolio seed volumes can be translated into values.	Available sometimes

Data compiled Sep. 09, 2024.
Source: S&P Global Commodity Insights.

Database

Country	# companies in database	Comments on the seed market
China	159	1,000s of companies overall. Chinese companies rising up the league table. New government Seed Law. Opening up to GM?
US	155	Many smaller companies have disappeared, driven partly by GM.
India	123	Liberalization of industry in 60s–70s led to dynamic private sector.
Japan	68	Still a very traditional industry.
Chile	63	Major centre of production and exports.
Netherlands	53	Major centre of production and exports.
Turkey	53	800 members in Seed Association. Hosts to next WSC.
France	49	Recent mergers of leading local companies; Cooperatives important.
Argentina	42	
Italy	42	
Pakistan	29	
Germany	24	Several 100+ year old companies still in existence.
South Korea	23	
Canada	22	

Data compiled Sep. 09, 2024.

Source: S&P Global Commodity Insights.

Database — # companies with sales data (by tier)

	# Tier 1 companies	# Tier 2 companies	# Tier 3 companies
China	2	9	16
France	1	6	8
Germany	3	3	9
India		4	21
Japan	1	3	8
Netherlands	2	4	
US	1	3	14
Canada			4
Italy			10
Korea			2
Sub-total	10	32	92

Data compiled Sep. 09, 2024.
Source: S&P Global Commodity Insights.

Tier 1 company sales (\$M)

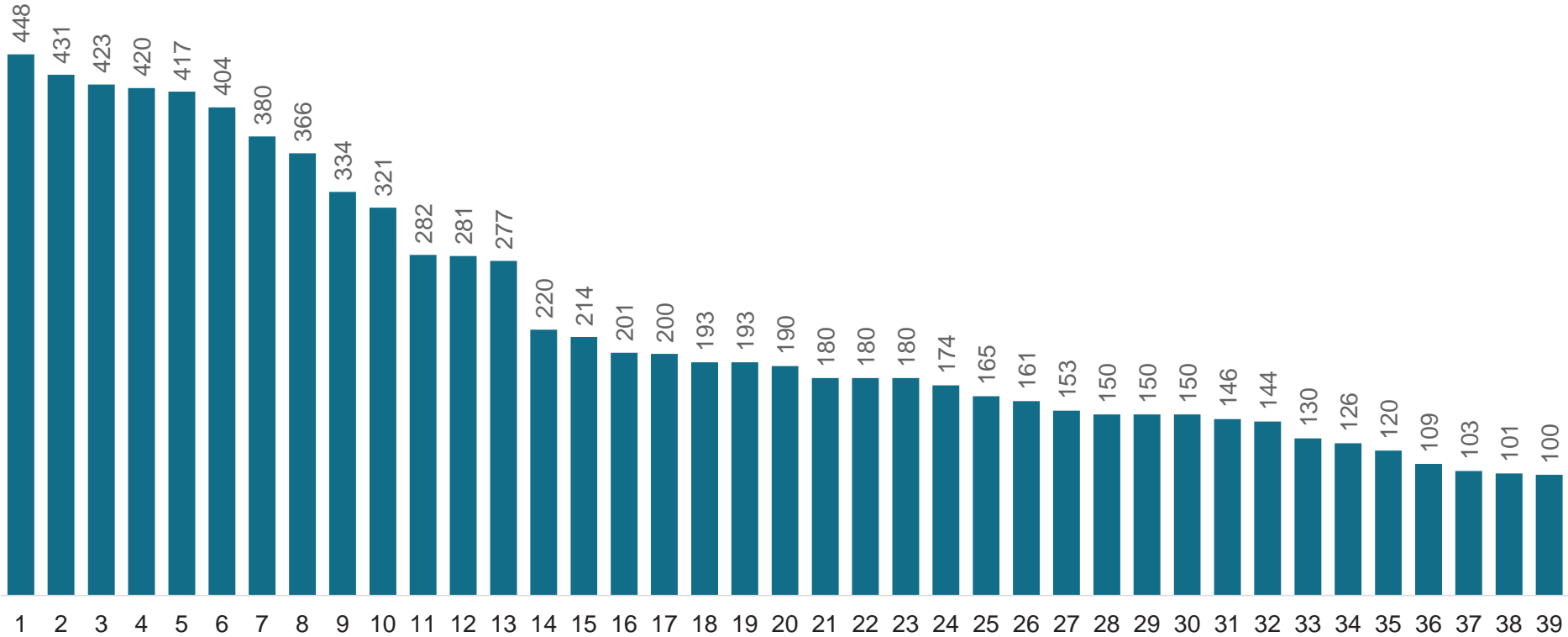
Company	Type of company	2018	2019	2020	2021	2022	2023
Bayer Crop Science	Life science	10,336	9,989	9,544	10,609	10,761	11,972
Corteva Agriscience	Crop science	7,842	7,590	7,756	8,402	8,979	9,472
Syngenta	Crop science	3,209	3,083	3,193	3,563	3,994	3,964
BASF	Diversified	1,535	1,628	1,703	1,941	1,969	2,122
KWS	Seed specialist	1,242	1,293	1,425	1,553	1,753	1,904
Vilmorin	Seed specialist	1,547	1,554	1,537	1,687	1,729	1,766
DLF	Seed specialist	693	849	1,101	1,207	1,283	1,231
Rijk Zwaan	Seed specialist	493	511	527	593	601	620
Sakata	Seed specialist	462	466	482	538	557	498
LPHT	Seed specialist	541	453	477	543	548	WIP
AgReliant genetics	Seed specialist	701	582	553	528	513	556

Data compiled Sep. 09, 2024.

WIP = Work-in-progress.

Source: S&P Global Commodity Insights.

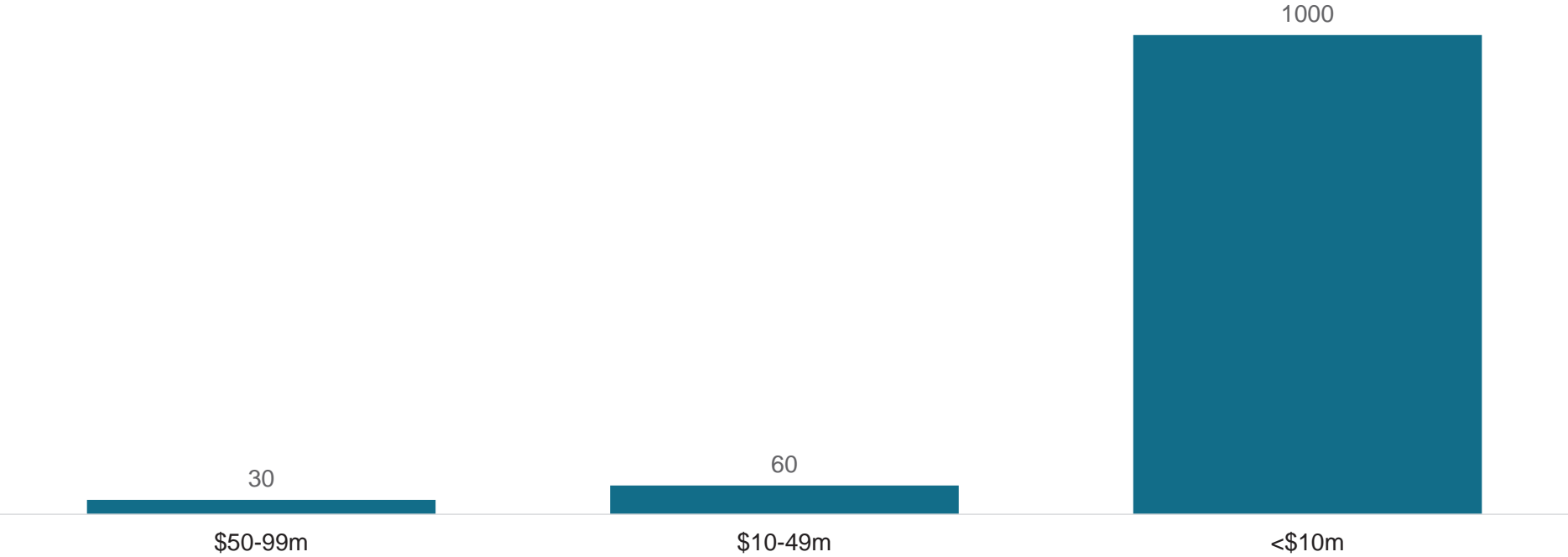
Tier 2 company sales (\$M)



Data compiled Sep. 09, 2024.
Source: S&P Global Commodity Insights.

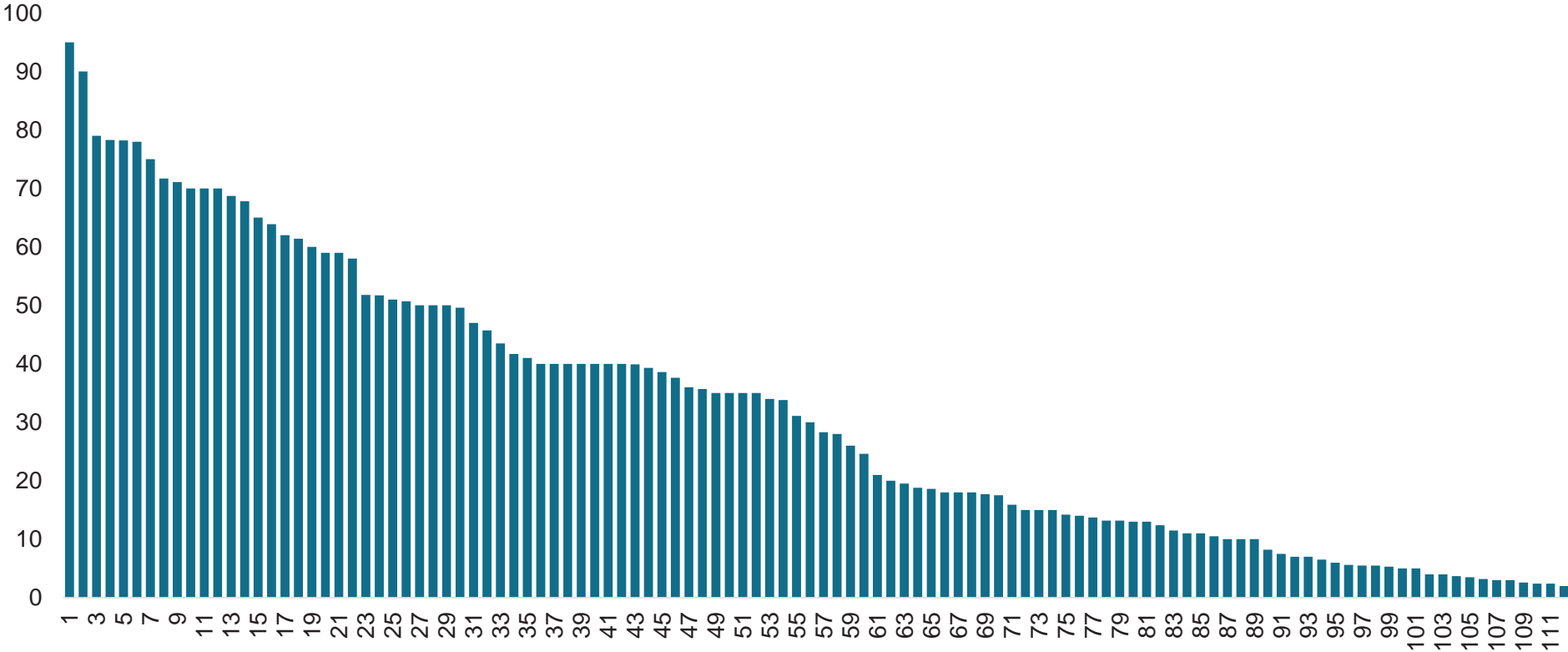
Tier 3 company sales distribution

companies



Data compiled Sep. 09, 2024.
Source: S&P Global Commodity Insights.

Tier 3 company sales (\$M)



Data compiled Sep. 09, 2024.
Source: S&P Global Commodity Insights.

Overall sales distribution

Comparison of company sales distribution in 2019 and 2024		
	% industry sales, 2019 study	% industry sales, 2024 study
Tier 1: >\$500M	69%	70.4%
Tier 2: \$100–\$499M	15%	17.9%
Tier 3a): \$50–\$99M	16%	4.1%
Tier 3b): \$10–49M		3.3%
Tier 3c): <\$10M		4.1%
Total	100%	100%

Data compiled Sep. 09, 2024.
Source: S&P Global Commodity Insights.

Seed company profitability



Source: Microsoft stock image.

Tier 1 company profitability 2023 (\$M)

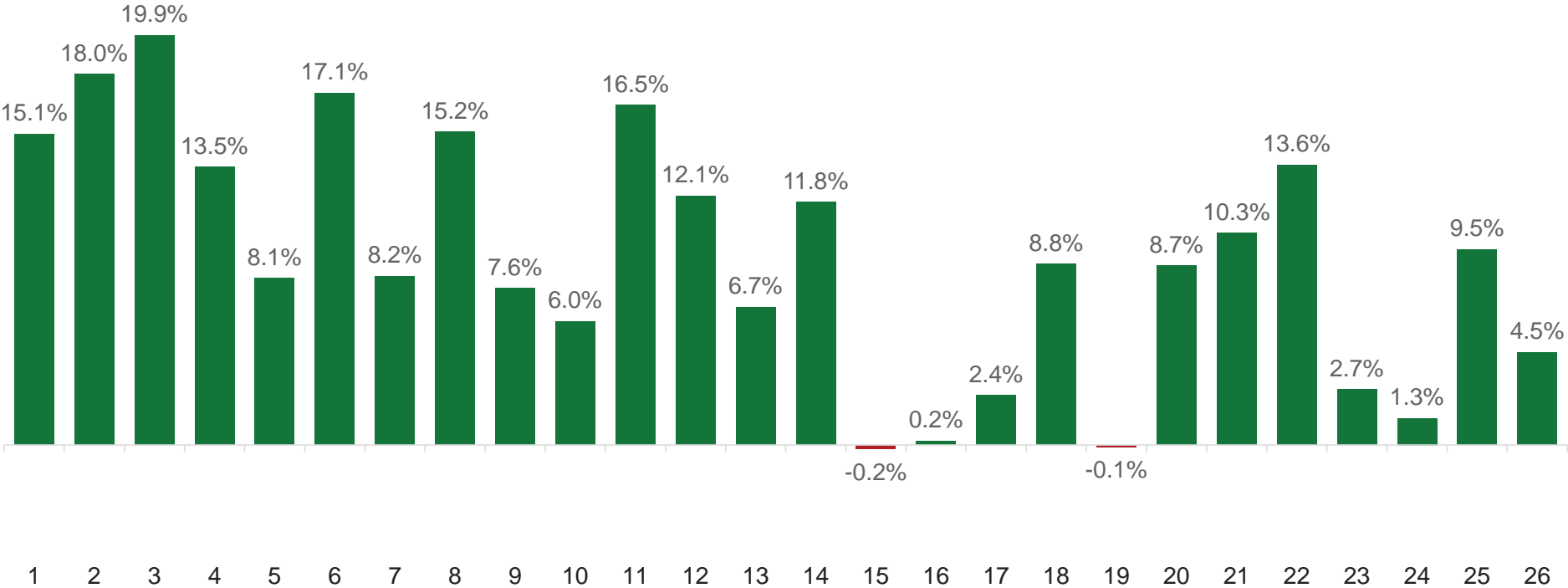
Company	Year	Seed sales (\$M)	EBIT* (\$M)	EBIT* %
Bayer	2023	11,972	2,379	20%
Corteva	2023	9,472	1,303	14%
Syngenta	2023	3,964	230	6%
BASF	2023	2,122	314	15%
KWS	2022	1,753	177	10%
Vilmorin	2022	1,729	164	9%
DLF	2023	1,231	73	6%
RZ	2023	618	47	8%
Sakata	2022	557	80	14%
LPHT	2022	548	14	3%
Total		33,965	4,780	14.1%
Total w/o Bayer		21,993	2,401	10.9%

Data compiled Sep. 09, 2024.

*EBIT = Earnings before interest and taxes.

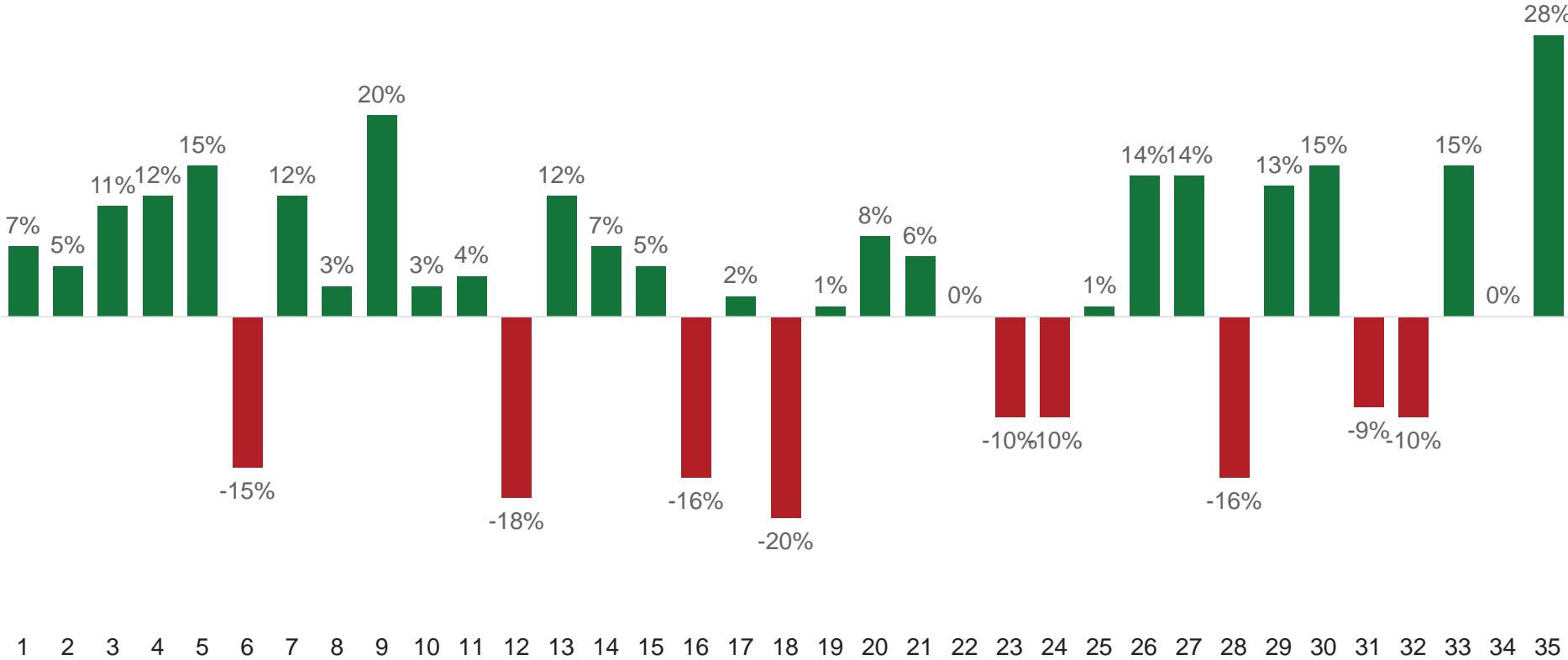
Source: S&P Global Commodity Insights.

Tier 2 company profitability — EBIT (%)



Data compiled Sep. 09, 2024.
EBIT = Earnings before interest and taxes.
Source: S&P Global Commodity Insights.

Tier 3 company profitability — EBIT (%)



Data compiled Sep. 09, 2024.
EBIT = Earnings before interest and taxes.
Source: S&P Global Commodity Insights.

Company profitability by tier

	Tier 1	Tier 2	Tier 3
Range	3–20%	0–20%	-20%–20%
Average	14.1% (10.1%)	9.5%	4%

Data compiled Sep. 09, 2024.
Source: S&P Global Commodity Insights.

Crop analysis



Source: Getty Images.

Crop markets (\$M)

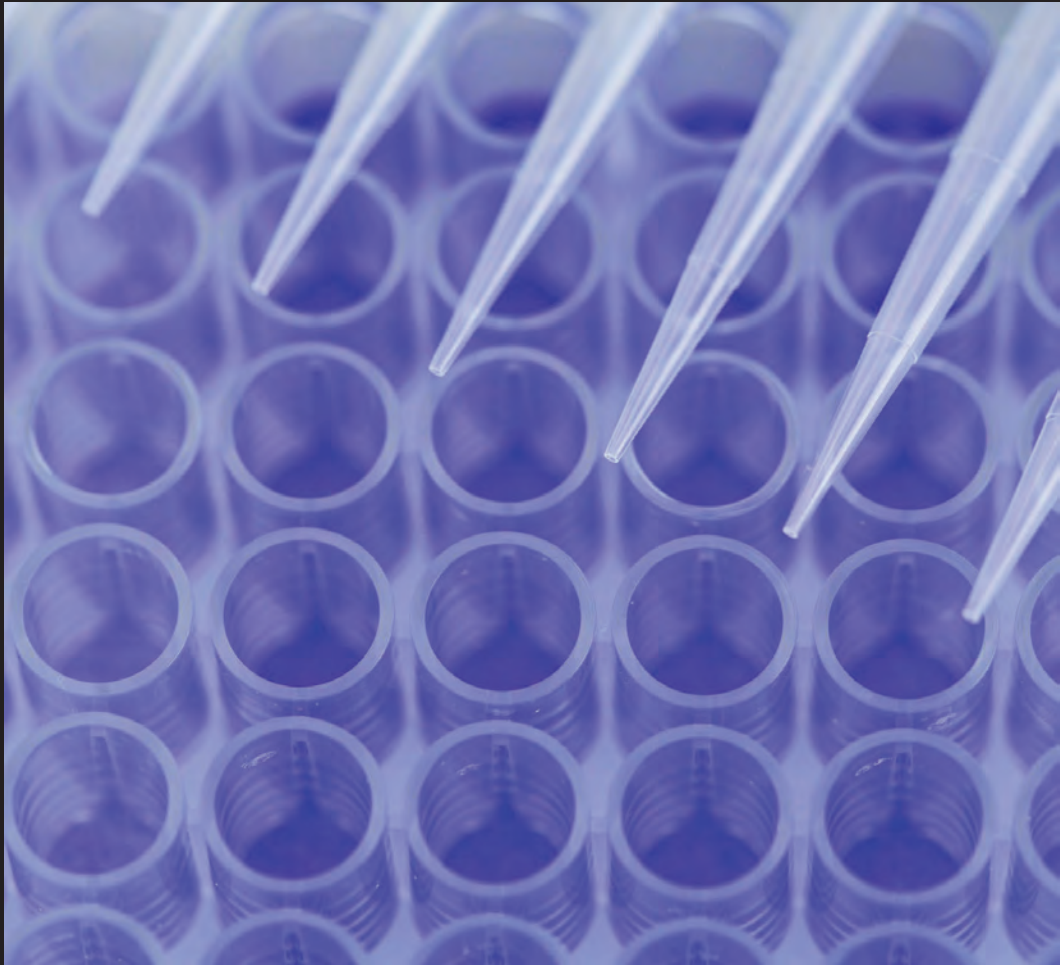


Data compiled Sep. 09, 2024.
Source: S&P Global Commodity Insights.

Hierarchy of crop profitability

- Sugar beet (>30% EBIT for KWS)
- Vegetables (5–15% EBIT: specialist companies, Bayer, Vilmorin)
- Maize/soybean (5–15% EBIT: Bayer, Corteva, Vilmorin, KWS)
- Forage crops (~5% EBIT: DLF)
- Potatoes (<5% EBIT)
- ? Wheat, rice, rapeseed, other oilseeds, cotton

R&D



Source: Microsoft stock image.

R&D spend a major factor affecting company profitability

Corteva example

Key financials in \$ million	2022	2023	% sales
Sales	8,979	9,472	100%
Cost of goods	5,387	5,446	58%
Gross profit	3,592	4,026	43%
SMA* expense	1,661	1,881	20%
R&D	778	842	9%
EBIT**	1,152	1,303	14%
EBITDA***	1,656	2,117	22%

Data compiled Sep. 09, 2024.

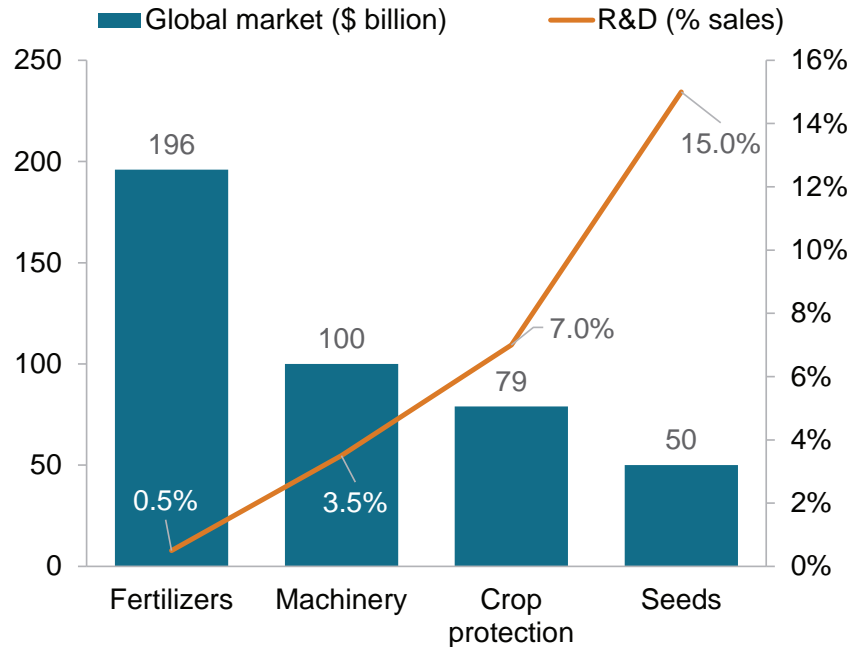
*SMA = Separately managed account; **EBIT = Earnings before interest and taxes; ***EBITDA = Earnings before interest, taxes, depreciation and amortization.

Source: S&P Global Commodity Insights.

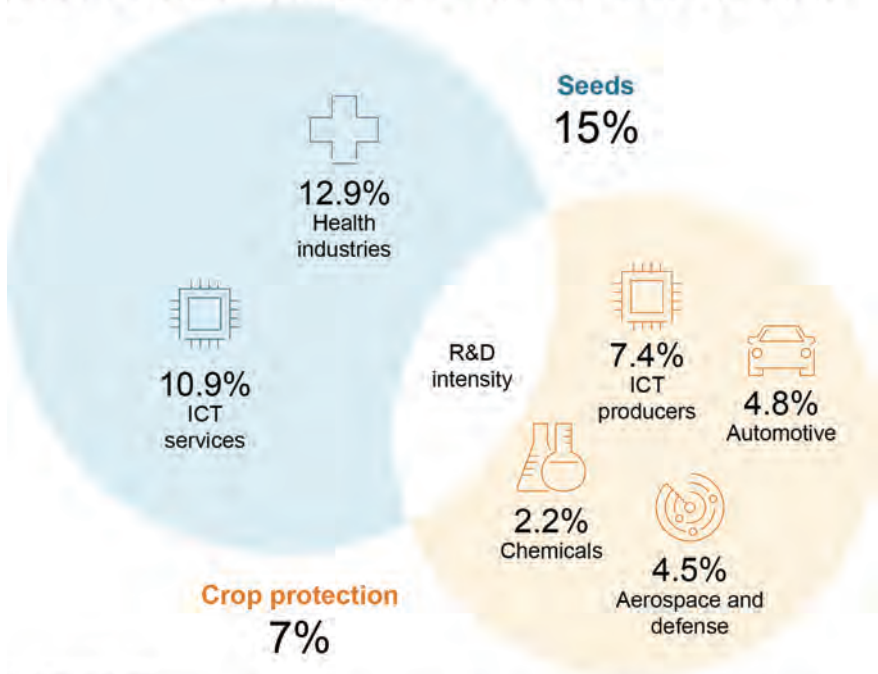
R&D intensity of different input sectors

Agriculture has a greater impact on the environment than any other human activity

Main agricultural inputs market size (\$ billion) and R&D (% sales)



Seeds are one of the most intensive areas of R&D



As of March 27, 2024.
 ICB = Industry Classification Benchmark; R&D intensity = R&D investment divided by net sales per sector; ICT = Information and Communication Technology.
 Sources: S&P Global Commodity Insights; European Commission, Joint Research Centre, Nindi, E., Confraria, H., Rentocchini, F. et al., The 2023 EU industrial R&D investment scoreboard, Publications Office of the European Union, 2023, <https://data.europa.eu/doi/10.2760/506189>
 © 2024 S&P Global; 2014.

Data compiled December 2023.
 Source: S&P Global Commodity Insights; IPCC.

Conclusions



Source: Shutterstock.

Conclusions

Similar to April 2024 presentation

- Industry structure
- Sales distribution of the 3 tiers;
Tier 3 slightly smaller
- Company profitability similar:
 - Tier 1 and Tier 2 similar profitability as last time and to each other
 - Tier 3 profitability lower — economies of scale?
- Crop profitability similar

Different from April 2024 presentation

- 40 vs. 30 companies in Tier 2
- Many more companies (>1,000) in Tier 3
- More granularity in Tier 3
- Chinese companies more prominent
- Greatly expanded database:
 - New sources
 - Refined methodology

Further work?

- Drill down into the drivers of company profitability:
 - Size — sales
 - Product range — which crops
 - GM proportion
 - R&D spend
 - Regional sales distribution
 - Any other influencing factors
- Construct a predictive model based on the above

Contact us

PRIMARY CONTACT(S)

Dr. Jonathan Shoham
jonathan.shoham@spglobal.com

Dr. Eddie Oliver
edward.oliver@spglobal.com

CONTACT US

Americas	+1 800 597 1344
Asia-Pacific	+60 4 296 1125
Europe, Middle East, Africa	+44 (0) 203 367 0681

www.spglobal.com/en/enterprise/about/contact-us.html

www.spglobal.com/commodityinsights

S&P Global
Commodity Insights



© 2024 by S&P Global Inc. All rights reserved.

S&P Global, the S&P Global logo, S&P Global Commodity Insights, and Platts are trademarks of S&P Global Inc. Permission for any commercial use of these trademarks must be obtained in writing from S&P Global Inc.

You may view or otherwise use the information, prices, indices, assessments and other related information, graphs, tables and images (“Data”) in this publication only for your personal use or, if you or your company has a license for the Data from S&P Global Commodity Insights and you are an authorized user, for your company’s internal business use only. You may not publish, reproduce, extract, distribute, retransmit, resell, create any derivative work from and/or otherwise provide access to the Data or any portion thereof to any person (either within or outside your company, including as part of or via any internal electronic system or intranet), firm or entity, including any subsidiary, parent, or other entity that is affiliated with your company, without S&P Global Commodity Insights’ prior written consent or as otherwise authorized under license from S&P Global Commodity Insights. Any use or distribution of the Data beyond the express uses authorized in this paragraph above is subject to the payment of additional fees to S&P Global Commodity Insights.

S&P Global Commodity Insights, its affiliates and all of their third-party licensors disclaim any and all warranties, express or implied, including, but not limited to, any warranties of merchantability or fitness for a particular purpose or use as to the Data, or the results obtained by its use or as to the performance thereof. Data in this publication includes independent and verifiable data collected from actual market participants. Any user of the Data should not rely on any information and/or assessment contained therein in making any investment, trading, risk management or other decision. S&P Global Commodity Insights, its affiliates and their third-party licensors do not guarantee the adequacy, accuracy, timeliness and/or completeness of the Data or any component thereof or any communications (whether written, oral, electronic or in other format), and shall not be subject to any damages or liability, including but not limited to any indirect, special, incidental, punitive or consequential damages (including but not limited to, loss of profits, trading losses and loss of goodwill).

ICE index data and NYMEX futures data used herein are provided under S&P Global Commodity Insights’ commercial licensing agreements with ICE and with NYMEX. You acknowledge that the ICE index data and NYMEX futures data herein are confidential and are proprietary trade secrets and data of ICE and NYMEX or its licensors/suppliers, and you shall use best efforts to prevent the unauthorized publication, disclosure or copying of the ICE index data and/or NYMEX futures data.

Permission is granted for those registered with the Copyright Clearance Center (CCC) to copy material herein for internal reference or personal use only, provided that appropriate payment is made to the CCC, 222 Rosewood Drive, Danvers, MA 01923, phone +1-978-750-8400. Reproduction in any other form, or for any other purpose, is forbidden without the express prior permission of S&P Global Inc. For article reprints contact: The YGS Group, phone +1-717-505-9701 x105 (800-501-9571 from the U.S.).

For all other queries or requests pursuant to this notice, please contact S&P Global Inc. via email at ci.support@spglobal.com.