

Flash Commentary: Food Safety

Tracking our Thesis on Food Safety Opportunities: A Look at Neogen



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- **Food safety innovation offers growth opportunities for investors.** As we discussed in our July 2016 report [Food Safety: In a State of Transformation](#), the global food safety testing market is expanding due to the enactment of government regulations such as the Food Safety Modernization Act (FSMA), quality improvement initiatives by food processors, and consumer demand for safer food.
- **Our optimistic view on growth in food safety testing is supported by Neogen's fourth quarter earnings release.** Neogen is flagged in our report for having high exposure to the food safety theme.
 - Revenues for the fourth quarter of Neogen's 2016 fiscal year (ending May 31) were \$90.08 million (+15% YoY), versus a consensus estimate of \$86.3 million. Revenues for fiscal 2016 increased 13.5% over fiscal 2015. Fiscal fourth quarter EPS was \$0.26 (+4% YoY), in line with consensus estimates. Fiscal 2016 EPS increased 7.8% over fiscal 2015.
 - Food Safety segment revenues increased 11% during fiscal 2016 versus the prior year. Growth was driven by rapid tests for food allergens and AccuPoint Advanced Sanitation Monitoring System products.
 - Animal Safety segment revenues increased 16% during fiscal 2016 versus the prior year (14% organic). Growth was driven by agrigenomics testing and biosecurity products.
- **Biosecurity benefiting from consumer trends.** Neogen's Animal Safety business is positioned to benefit from growing demand for poultry raised without antibiotics. As antibiotic use is reduced, there's a growing need for biosecurity products such as cleaners, disinfectants, rodenticides and insecticides. These maintain control over any infections that would become food safety problems as the food products pass through the farm gate (from the farm to the consumer).
- **Prospective opportunities in seafood testing.** Neogen CEO Jim Herbert believes the FSMA will have more impact on imported seafood than any other part of their market. The company offers products for salmon and trout genotyping, but it is interested in expanding further into the aquaculture market.

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Overview of Neogen’s Business

Neogen develops and markets products dedicated to food and animal safety. The company has two segments – Animal Safety and Food Safety – but they think about their entire business as levered to food safety because it serves food producers and processors at every point in the process.

The Food Safety segment (45% of trailing 12 months’ [TTM] revenue as of May 31, 2016) markets dehydrated culture media and diagnostic test kits to detect foodborne bacteria, natural toxins, food allergens, drug residues, plant diseases and sanitation concerns. The Animal Safety segment (55% of TTM revenue) manufactures and distributes a variety of animal healthcare products. The products most directly related to the food safety theme include biosecurity products such as disinfectants, insecticides, and rodenticides as well as animal genomics services (agrigenomics).

Figure 1: Food Safety (Diagnostics Products) market



Source: Neogen investor presentation

Figure 2: Animal Safety (Intervention Products) market



Source: Neogen investor presentation

Food Safety

In Neogen’s Food Safety business, their line of food allergen tests were up 20% for the year. Sales of AccuPoint Advanced Sanitation Monitoring System products increased by 18% in 2016. The AccuPoint System monitors the amount and location of ATP (adenosine triphosphate), a chemical found in all living cells, and quickly determines if a food contact surface has been completely sanitized.

Furthermore, sales of test kits for *Listeria* continued their upward momentum, with sales for fiscal 2016 up 14% over the prior year. Neogen noted that *Listeria* and other foodborne pathogens, including *E. coli* and *Salmonella*, are being detected in food products that once seemed unlikely to be contaminated.

Neogen's NeoSEEK technology detects and identifies pathogens and provides next-day, DNA-specific test results. The FSMA is shifting the private sector mandate from that of reactive compliance (relying on production standards and government monitoring of outbreaks) to that of proactive responsibility (requiring food safety systems that actively address risks in the food supply chain). As such, Neogen believes NeoSEEK will benefit from the need for more food safety testing.

Animal Safety

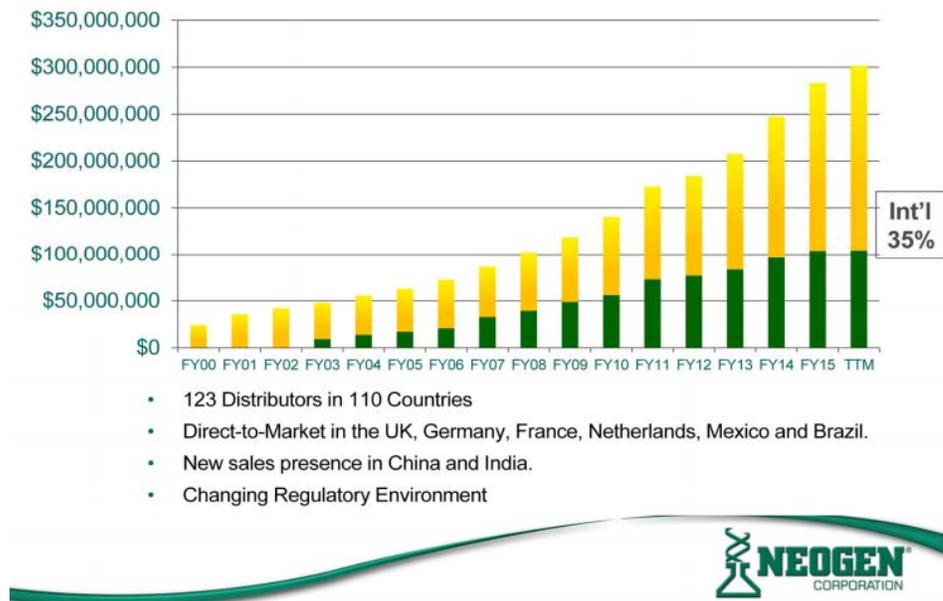
Turning to Neogen's Animal Safety business, sales of the company's biosecurity product offering of cleaners, disinfectants, rodenticides and insecticides were strong, with revenues up 17% over the prior year. The company says that growth in poultry raised without antibiotics is positively impacting this business as producers focus on preventing and controlling disease inside the farm gate.

Revenues from Neogen's animal genomics business increased 22% in fiscal 2016 compared to the prior year. The company's GeneSeek product empowers customers to speed genetic improvement efforts, as well as identify economically important diseases, primarily in large-herd beef and dairy cattle, swine, poultry and sheep producers. The result of this technology allows the acceleration of natural selection through selective breeding of traits such as disease resistance. It's important to note that GeneSeek is not involved in cloning or the development of transgenic animals.

International Business

In fiscal 2016 revenues generated outside the US dropped to 33.5% from 37% in 2015. International sales actually grew in local currency but currency impacts and growth in the US caused the international share to drop this year. Still, it's evident that international sales are growing.

Figure 3: International Sales % of Revenue



Source: Neogen investor presentation

Neogen is focused on India through its acquisition of the Sterling Group. The company is located in Cochin, India which is the leading region for the export spices, teas, and fresh fruits and vegetables. Through this acquisition, Neogen plans to launch its rapid diagnostic test for food safety. Neogen's China revenues increased 86% in 2016 versus the prior year as a growing middle class demands not only different types of products such as animal protein and dairy, but increased transparency in what they eat. Neogen's acquisition of Brazil-based Deoxi is intended to help them accelerate growth of their animal genomics business in Brazil, which has the most cattle in the world.

Aquaculture is one of the fastest-growing sectors in food production, thereby providing significant opportunity in seafood testing. Neogen CEO Jim Herbert believes the Food Safety Modernization Act will have more impact on imported seafood than any other part of their market. The company offers products for salmon and trout genotyping, but it is interested in expanding further into the aquaculture market.

Figure 4, from our original report [Food Safety: In a State of Transformation](#), highlights company exposure to food safety themes.

Figure 4: Company exposure to food safety theme

Company	Ticker	GICS Industry	Description of relevant business	Food safety Exposure
Ecolab	ECL	Chemicals	Food & beverage cleaning, sanitation and plant hygiene solutions including customized on-site evaluations, training, and quality assurance services to foodservice operations	High
Sealed Air	SEE	Containers & Packaging	Packaging and hygiene solutions	High
MOCON	MOCO	Electrical Equipment, Instruments & Components	Instruments that detect, measure, and monitor gases and other chemical compounds	High
Roka Bioscience	ROKA	Healthcare Equipment & Supplies	Molecular assays and instrument systems	High
Neogen	NEOG	Healthcare Equipment & Supplies	Diagnostic tests for food and feed producers and processors	High
Where Food Comes From	WFCF	Internet Software & Services	Third party verification and traceability of food production practices	High
Eurofins	ERF.FP	Life Science Tools & Services	Testing, inspection, and certification services for food safety	High
Manitowoc Foodservice	MFS	Machinery	Commercial foodservice equipment	Medium/High
Middleby	MIDD	Machinery	Commercial foodservice and industrial processing equipment	Medium/High
John Bean Technologies	JBT	Machinery	Food equipment & service	Medium/High
bioMerieux	BIM.FP	Healthcare Equipment & Supplies	Microbiology, immunoassays, and molecular tests	Medium
IDEXX	IDXX	Healthcare Equipment & Supplies	Diagnostic, health-monitoring, and food safety testing products for livestock, poultry, and dairy; testing and detection solutions of various microbiological parameters in water	Medium
Thermo Fisher	TMO	Life Science Tools & Services	Diverse portfolio of food safety testing solutions	Medium
Perkin Elmer	PKI	Life Science Tools & Services	Variety of solutions that confirm food quality and identify the origin of food products	Medium
Agilent	A	Life Science Tools & Services	Products address food safety and food authenticity	Medium
Mettler-Toledo	MTD	Life Science Tools & Services	Provides end-of-line inspection systems used in production and packaging for food	Medium
Bruker	BRKR	Life Science Tools & Services	Nuclear magnetic resonance, mass spectrometry, and Infrared/Near Infrared instruments for food safety	Medium
Rational	RAA.GR	Machinery	Thermal food preparation	Medium
PAR Technology	PAR	Electrical Equipment, Instruments & Components	Software-as-a-service solution for storing, analyzing, and reporting data for HACCP compliance purposes	Medium/Low
Waters	WAT	Life Science Tools & Services	High and ultra-performance liquid chromatography and mass spec systems for food safety labs	Medium/Low
SGS	SGSN.VX	Professional Services	Agriculture, Food, and Life business lines offers testing, inspection, and certification services	Medium/Low
DuPont	DD	Chemicals	Qualicon business operates in the pathogen testing market	Low
Trimble	TRMB	Electrical Equipment, Instruments & Components	HarvestMark provides food traceability and quality control solutions	Low
Cognex	CGNX	Electrical Equipment, Instruments & Components	Machine vision	Low
3M	MMM	Industrial Conglomerates	Products make it faster and easier for food processors to test the microbiological quality of food	Low
Bio-Rad	BIO	Life Science Tools & Services	Chromogenic and molecular tests for food pathogens, food quality	Low
Qiagen	GEN	Life Science Tools & Services	Molecular testing solutions	Low
Illumina	ILMN	Life Science Tools & Services	Sequence and array-based technology platform	Low
Kuka	KU2.GR	Machinery	Industrial robots	Low
Fanuc	6954.JP	Machinery	Industrial robots	Low
Intertek	ITRK.LN	Professional Services	Food & Agriculture business offers testing, inspection, and certification services	Low
Bureau Veritas	BVI.FP	Professional Services	Testing, inspection, and certification services for food safety	Low

Source: Company reports, Cornerstone Capital Group. *Company exposure is based on Cornerstone estimates of current sales derived from products and services relating to food safety



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