UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

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

For the Fiscal Year Ended May 31, 2021

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For The Transition Period From _____To _____.

COMMISSION FILE NUMBER 0-17988

NEOGEN CORPORATION
(Exact name of registrant as specified in its charter)

MICHIGAN	**38-2367843**
(State of other jurisdiction of incorporation organization)	**(I.R.S. Employer Identification No.)**

620 Lesher Place
Lansing, Michigan 48912
(Address of principal executive offices, including zip code)

517-372-9200
(Registrant's telephone number, including area code)

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

Title of each Class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.16 par value per share	**NEOG**	**NASDAQ Global Select Market**

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT:
(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by a check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ 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. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐
Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

Based on the closing sale price on November 30, 2020 the aggregate market value of the voting stock held by non-affiliates of the registrant was $3,951,774,000. For these purposes, the registrant considers its Directors and executive officers to be its only affiliates.

The number of outstanding shares of the registrant's Common Stock was 107,477,445 on June 30, 2021.

DOCUMENTS INCORPORATED BY REFERENCE

Certain portions of the registrant's definitive proxy statement to be prepared pursuant to Regulation 14a and filed in connection with solicitation of proxies for its October 7, 2021 annual meeting of shareholders are incorporated by reference into part III of the Form 10-K.

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

Forward-looking statements, within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, are made throughout this Annual Report on Form 10-K, including statements relating to management's expectations regarding new product introductions; the adequacy of our sources for certain components, raw materials and finished products; and our ability to utilize certain inventory. For this purpose, any statements contained herein that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, the words "believes," "anticipates," "plans," "expects," "seeks," "estimates," and similar expressions are intended to identify forward-looking statements. These forward-looking statements are intended to provide our current expectations or forecasts of future events; are based on current estimates, projections, beliefs, and assumptions; and are not guarantees of future performance. Actual events or results may differ materially from those described in the forward-looking statements. There are a number of important factors, including competition, recruitment and dependence on key employees, impact of weather on agriculture and food production, effects of the ongoing COVID-19 pandemic on our business, results of operations, liquidity, financial condition and stock price, identification and integration of acquisitions, research and development risks, patent and trade secret protection, government regulation and other risks detailed in item 1A. RISK FACTORS in this Form 10-K and from time to time in the Company's reports on file at the Securities and Exchange Commission, that could cause Neogen Corporation's results to differ materially from those indicated by such forward-looking statements.

In addition, any forward-looking statements represent management's views only as of the day this Annual Report on Form 10-K was first filed with the Securities and Exchange Commission and should not be relied upon as representing management's views as of any subsequent date. While management may elect to update forward-looking statements at some point in the future, it specifically disclaims any obligation to do so, even if its views change.

As used in this Annual Report on Form 10-K, the terms "Neogen," "the Company," "we," "us," and "our" refer to Neogen Corporation and, where appropriate, its consolidated subsidiaries, unless the context indicates otherwise.

PART I

ITEM 1. BUSINESS

Neogen Corporation and subsidiaries develop, manufacture and market a diverse line of products and services dedicated to food and animal safety. Our Food Safety segment consists primarily of diagnostic test kits and complementary products (e.g., culture media) sold to food producers and processors to detect dangerous and/or unintended substances in human food and animal feed, such as foodborne pathogens, spoilage organisms, natural toxins, food allergens, genetic modifications, ruminant by-products, meat speciation, drug residues, pesticide residues and general sanitation concerns. Our diagnostic test kits are generally easier to use and provide greater accuracy and speed than conventional diagnostic methods. The majority of the test kits are disposable, single-use, immunoassay and DNA detection products that rely on proprietary antibodies and RNA and DNA testing methodologies to produce rapid and accurate test results. Our expanding line of food safety products also includes genomics-based diagnostic technology, and advanced software systems that help testers to objectively analyze and store their results and perform analysis on the results from multiple locations over extended periods.

Neogen's Animal Safety segment is engaged in the development, manufacture, marketing and distribution of veterinary instruments, pharmaceuticals, vaccines, topicals, diagnostic products, rodenticides, cleaners, disinfectants, insecticides and genomics testing services for the worldwide animal safety market. The majority of these consumable products are marketed through veterinarians, retailers, livestock producers and animal health product distributors. Our line of drug detection products is sold worldwide for the detection of abused and therapeutic drugs in animals and animal products, and has expanded into the workplace and human forensic markets.

Neogen's products are marketed by our sales personnel in the U.S., Canada, Mexico, Central America, Brazil, Argentina, Uruguay, Chile, the United Kingdom, the European Union, China, India and Australia, and by distributors throughout the rest of the world.

Our mission is to be the leading company in the development and marketing of solutions for food and animal safety. To meet this mission, a growth strategy consisting of the following elements has been developed: (i) increasing sales of existing products; (ii) introducing innovative products and services; (iii) growing international sales; and (iv) acquiring businesses and forming strategic alliances. We have historically been successful at increasing product sales organically, including international growth, and maintain an active acquisition program to identify and capitalize on opportunities to acquire new products, businesses, or technology.

Neogen Corporation was formed as a Michigan corporation in June 1981 and operations began in 1982. Our principal executive offices are located at 620 Lesher Place, Lansing, Michigan 48912-1595 and our telephone number is (517) 372-9200.

Neogen's Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports are available free of charge via our website (www.neogen.com) as soon as reasonably practicable after such information is filed with, or furnished to, the United States Securities and Exchange Commission. The content of our website or the website of any third party that may be noted herein is not incorporated by reference in this Form 10-K.

PRODUCTS

Product trademarks and registered trademarks owned by Neogen include:

CORPORATE: NEOGEN®, NEOGEN flask (logo)®, NEOGEN and flask (logo)®;

FOOD SAFETY: AccuClean®, AccuPoint®, AccuScan®, Acumedia®, Agri-Screen®, Alert®, ANSR® , BetaStar®, BioLumix® , Ceralpha®, Colitag™, F.A.S.T.®, GeneQuence®, GENE-TRAK®, Harlequin®, ISO-GRID®, Lab M®, *Listeria* Right Now™, Megazyme®, Megazyme (design) ®, MPNPlate™, MPNTray™, NeoCare™, NeoColumn™, NeoFilm®, NeoNet®, NeoSeek™, NEO-GRID®, Penzyme®, Raptor®, Reveal®, Soleris®, µPREP®, Veratox® , Simple. Accurate. Supported. Food Safety Solutions℠;

LIFE SCIENCES: Alert®, K-Blue®, K-Blue Substrate®, K-Gold®, NeoSal®;

ANIMAL SAFETY: Acid-A-Foam™, Aero-ssault™, Ag-Tek®, AluShield™, AquaPrime®, Assault®, Barnstorm®, BioCres™ 50, BioPhene™, BioQuat™, BotVax®, Breeder-Sleeve®, Calf Eze™, Chem-Tech, Ltd.™, Chem-Tech's CT logo (with circle)™, Chlor-A-Foam™, COMPANION™, CT-511®, Cykill™, D3™ Needles, DC&R®, DeciMax®, Di-Kill®, Dr. Frank's®, Dy-Fly®, Dyne-O-Might®, Earth City Resources (design)®, ElectroJac®, ELISA Technologies (design)®, EqStim®, EquiSleeve®, E-Z Bond™, E-Z Catch®, Farm-Foam™, Farmphene®, Final-Fly-T®, Fly-Die Defense™, Fly-Die Ultra™, Fura-Zone®, GenQuat™, Horse Sense®, Ideal®, ImmunoRegulin®, Insight™, Iodis®, Jolt®, LD-44®, LD-44T™, MACLEOD®, Maxi Sleeve®, MaxKlor®, MegaShot™, MycAseptic™, NeedleGard™, NEOGEN® Viroxide Super™, NEOGEN® Viroxide Super and flask (design)™, NFZ™, Nu Dyne®, PanaKare™, Pantek™, ParlorMint™, Parvosol®, Peraside™, Place Pack®, PolyPetite™, PolyShield™, PolySleeve®, Preserve®, Preserve International®, Preserve International(design)®, Prima®, Prima Marc™, Prima-Shot™, Prima Tech®, Pro-Fix®, Pro-Flex®, Promar™, Pro-Shot™, PRO-TECT 6 MIL®, Prozap®, Prozap (stylized mark w/fancy Z)™, PY-75™, Ramik®, Rat & Mouse-A-Rest II®,

RenaKare™, Rodent Elimination Station™, Rodex™, Rot-Not™, Safe-T-Flex™, Siloxycide®, Spectrasol™, Spec-Tuss™, Squire®, Standguard®, Starlicide®, Stress-Dex®, SureBond®, SureKill®, Swine-O-Dyne®, Synergize®, Tetrabase®, Tetracid®, Tetradyne®, ThyroKare™, TopHoof™, Tri-Hist®, Tri-Seal™, Turbocide®, Turbocide Gold®, Uniprim®, UriKare™, VAP-5™, VAP-20™, Vet-Tie™, Vita-15™, War Paint®, X-185™;

GENOMICS: Deoxi™, Envigor™, GeneSeek®, Genomic Profiler™, Genomic Insight for Personalized Care™, Igenity®, SeekGain™, SeekSire™, SeekTrace™, Early Warning™;

LOGOTYPES: BioSentry barn logo®, BioSentry chicken logo®, BioSentry pig logo®, Circular design®, TurboCide® (stylized), D3 color mark – red®.

Neogen operates in two business areas: the Food Safety and the Animal Safety segments. See the "Notes to Consolidated Financial Statements" section of this Form 10-K for financial information about our business segments and international operations.

FOOD SAFETY SEGMENT

Neogen's Food Safety segment is primarily engaged in the production and marketing of diagnostic test kits and complementary products marketed to food and feed producers and processors to detect dangerous and/or unintended substances in food and animal feed, such as foodborne pathogens, spoilage organisms, natural toxins, food allergens, genetic modifications, ruminant by-products, meat speciation, drug residues, pesticide residues and general sanitation concerns. Our test kits are used to detect potential hazards or unintended substances in food and animal feed by testers ranging from small local grain elevators to the largest, best-known food and feed processors in the world, and numerous regulatory agencies. Neogen's products include tests for:

Mycotoxins. Grain producers and processors of all types and sizes use our Veratox, Agri-Screen, Reveal, Reveal Q+ and Reveal Q+ MAX tests to detect the presence of mycotoxins, including aflatoxin, aflatoxin M1, deoxynivalenol, fumonisin, ochratoxin, zearalenone, T-2/HT-2 toxin and ergot alkaloid, to help ensure product safety and quality in food and animal feed.

Food allergens. The world's largest producers of cookies, crackers, candy, ice cream and many other processed foods use our Veratox, Alert, Reveal, Reveal 3-D and BioKits testing products to help protect their food-allergic customers from the inadvertent contamination of products with food allergens, including but not limited to peanut, milk, egg, almond, gliadin (gluten), soy, hazelnut and coconut residues.

Dairy antibiotics. Dairy processors are the primary users of Neogen's BetaStar diagnostic tests to detect the presence of veterinary antibiotics in milk. The presence of these drugs above a certain level in milk is a public health hazard and an economic risk to producers as it limits the milk's further processing.

Foodborne pathogens. Meat and poultry processors, seafood processors, fruit and vegetable producers and many other market segments are the primary users of Neogen's ANSR and Reveal tests for foodborne bacteria, including *E. coli* O157:H7, *Salmonella*, *Listeria* and *Campylobacter*. Neogen's ANSR pathogen detection system is an isothermal amplification reaction test method which exponentially amplifies the DNA of any bacteria present in food and environmental samples to detectable levels in 10 minutes. Combined with ANSR's single enrichment step, Neogen's pathogen detection method provides DNA-definitive results in a fraction of the time of other molecular detection methods. Our *Listeria* Right Now test detects the pathogen in less than 60 minutes without sample enrichment. Reveal's lateral flow device combines an immunoassay with chromatography for a rapid and accurate one-step result.

Spoilage microorganisms. Neogen's Soleris products are used by food processors to identify the presence of spoilage organisms (e.g., yeast and mold) and other microbiological contamination in food. The systems measure microbial growth by monitoring biochemical reactions that generate a color change in the media as microorganisms grow. The sensitivity of the system allows detection in a fraction of the time needed for traditional methods, with less labor and handling time. In July 2020, we launched Soleris NG, a next generation version of the platform, which features enhanced hardware and software for results that are easier to analyze and audit. Our NeoSeek genomics services utilize a novel application of metagenomics to determine all bacteria in a sample, without introducing biases from culture media, and without the need to generate a bacterial isolate for each possible microbe in a sample.

Sanitation monitoring. Neogen manufactures and markets our AccuPoint Advanced rapid sanitation test to detect the presence of adenosine triphosphate (ATP), a chemical found in all living cells. This easy-to-use and inexpensive test uses bioluminescence to quickly determine if a contact surface has been completely sanitized. When ATP comes into contact with reagents contained in the test device, a reaction takes place that produces light. More light is indicative of higher levels of ATP and a need for more thorough sanitation. In May 2021, we launched AccuPoint Advanced NG, a next generation version, designed to be simpler to use, and provide results that are easier to analyze. Our worldwide customer base for ATP sanitation testing products includes food and beverage processors, the food service and healthcare industries, as well as many other users.

Seafood contaminants. Neogen's specialty products for the seafood market include tests for histamine, a highly allergenic substance that occurs when certain species of fish begin to decay; sulfite, an effective but potentially allergenic shrimp preservative; and shellfish toxins.

Neogen's Reveal lateral flow tests for shellfish toxins include rapid tests to detect the toxins that cause amnesic shellfish poisoning (ASP), diarrhetic shellfish poisoning (DSP) and paralytic shellfish poisoning (PSP).

Waterborne microorganisms. Neogen offers the food and beverage industries, including water companies, several platforms for performing the microbial analysis of water. This includes Neogen's filter tests, which are a combination of Neogen Filter membrane filtration and Neogen Culture Media ampouled media, and easy-to-use Colitag product. With Colitag, after an incubation period, the sample changes color in the presence of coliforms and fluoresces in the presence of *E. coli*.

Culture media. Neogen Culture Media, formerly Neogen's Acumedia and Lab M products, offers culture media and prepared media for varied purposes, including traditional bacterial testing and the growth of beneficial bacteria, such as cultures for sausages and beer. Our customers for culture media also include commercial and research laboratories and producers of pharmaceuticals, cosmetics and veterinary vaccines.

Food quality diagnostics. Through the December 2020 acquisition of Ireland-based Megazyme, Ltd., Neogen supplies diagnostic kits and specialty enzymes used worldwide by quality control laboratories in the food, animal feed, and beverage industries. Megazyme's validated assays and reagents are used across various food industries such as the grain, wine, and dairy markets, to measure dietary fibers, complex carbohydrates, simple sugars, and organic acids, such as lactose.

Digital services. Our new food safety and risk management software as a service, Neogen Analytics, delivers a comprehensive Environmental Monitoring Program (EMP) automation solution for food companies. The software reduces risk by increasing visibility to food safety testing results, elevating the ability to enforce and improve food safety standards. Neogen Analytics builds upon innovative technologies like our AccuPoint Advanced Next Generation and ANSR systems, offering floor plan mapping, smart test scheduling, easily filtered and auditable data management, and corrective actions.

Laboratory services. Neogen offers food safety analysis services in the U.S., United Kingdom (U.K.) and India. These ISO-accredited laboratories offer a variety of fee-for-service tests for the food and feed industry.

The majority of Neogen's food safety test kits use immunoassay technology to rapidly detect target substances. Our ability to produce high quality antibodies sets our products apart from immunoassay test kits produced and sold by other companies. Our kits are available in microwell formats, which allow for automated and rapid processing of a large number of samples, and lateral flow and other similar devices that provide distinct visual results. Typically, test kits use antibody-coated test devices and chemical reagents to indicate a positive or negative result for the presence of a target substance in a test sample; the simplicity of the tests makes them accessible to all levels of food producers, processors and handlers. Neogen also offers other test methods and products to complement its immunoassay tests.

Our test kits are generally based on internally developed technology, licensed technology, or technology that is acquired in connection with acquisitions. In fiscal 2021, the Food Safety segment incurred expense totaling $1,798,000 for royalties for licensed technology used in our products, including expense of $856,000 for allergen products and $411,000 for the pathogen product line. Generally, royalty rates are in the range of 2% to 10% of revenues on products containing the licensed technology. Some licenses involve technology that is exclusive to Neogen's use, while others are non-exclusive and involve technology licensed to multiple licensees.

Neogen's international operations in the U.K., Mexico, Brazil, China and India originally focused on food safety products, and each of these units reports through the Food Safety segment. In recent years, these operations have expanded to offer our complete line of products and services, including those usually associated with the Animal Safety segment such as cleaners, disinfectants, rodenticides, insecticides, veterinary instruments and genomics services. These additional products and services are managed and directed by existing management at our international operations, and report through the Food Safety segment.

Revenues from Neogen's Food Safety segment accounted for 50.0%, 50.9%, and 51.5% of our total revenues for fiscal years ended May 31, 2021, 2020 and 2019, respectively.

ANIMAL SAFETY SEGMENT

Neogen's Animal Safety segment is primarily engaged in the development, manufacture, marketing and distribution of veterinary instruments, pharmaceuticals, vaccines, topicals, diagnostic products, a full suite of agricultural biosecurity products such as rodenticides, cleaners, disinfectants and insecticides, and genomics services.

Veterinary instruments. Neogen markets a broad line of veterinary instruments and animal health delivery systems under the Ideal brand name. Approximately 250 different products are offered, many of which are used to deliver animal health products, such as antibiotics and vaccines. Ideal's D3 Needles are stronger than conventional veterinary needles and are uniquely detectable by metal detectors at meat processing facilities — a potential market advantage in the safety-conscious beef and swine industries. Neogen's Prima Tech product line consists of highly accurate devices used by farmers, ranchers and veterinarians to inject animals, provide topical applications and to use for oral administration. Prima Tech is also a supplier of products used in artificial insemination in the swine industry. Other products include animal identification and handling equipment.

Veterinary pharmaceuticals. Animal Safety's NeogenVet product line provides innovative, value-added, high quality products to the veterinary market. Top NeogenVet products include PanaKare, a digestive aid that serves as a replacement therapy where digestion of protein, carbohydrate and fat is inadequate due to exocrine pancreatic insufficiency; Natural Vitamin E-AD, which aids in the prevention and treatment of vitamin deficiencies in swine, cattle and sheep; RenaKare, a supplement for potassium deficiency in cats and dogs; and ThryroKare, a supplement used as replacement therapy for dogs with diminished thyroid function. Other products sold under the NeogenVet brand include Vita-15 and Liver 7, which are used in the treatment and prevention of nutritional deficiencies. We also manufacture and market Uniprim, a veterinary antibiotic.

Veterinary biologics. Neogen's BotVax B vaccine has successfully protected thousands of horses and foals against Type B botulism, commonly known as Shaker Foal Syndrome. Our product is the only USDA-approved vaccine for the prevention of Type B botulism in horses. Years of research and many thousands of doses have proven Neogen's EqStim immunostimulant to be safe and effective as a veterinarian-administered adjunct to conventional treatment of equine bacterial and viral respiratory infections. Our ImmunoRegulin product uses similar immunostimulant technology to aid in the treatment of pyoderma (a bacterial skin inflammation) in dogs.

Veterinary OTC products. Animal Safety products offered by Neogen to the retail over-the-counter (OTC) market include Ideal brand veterinary instruments packaged for the retail market. OTC products also include Stress-Dex, an oral electrolyte replacer for performance horses, and Fura-Zone, for the prevention and treatment of surface bacterial infections in wounds, burns and cutaneous ulcers. Hoof care, disposables and artificial insemination supplies are marketed to the dairy and veterinary industries.

Rodenticides. Neogen's comprehensive line of proven rodenticides, sold under brand names such as Ramik and Havoc, effectively address rodent problems of any size and serve as a critical component of an overall biosecurity plan for animal protein production operations. Neogen offers several rodenticide active ingredients including diphacinone, bromethalin, brodifacoum, and zinc phosphide formulated with food grade ingredients to generate the highest acceptance and most palatable bait possible.

Cleaners and disinfectants. Used in animal and food production facilities, Neogen's cleaners and disinfectants, including 904 Disinfectant, Acid-A-Foam, Synergize, BioPhene, Neogen Viroxide Super, and Companion, can stop a disease outbreak before it starts. The products are also used in the veterinary clinic market to maintain sanitary conditions and limit the potential hazards of bacteria, fungi and viruses. Neogen's water line cleaner and disinfectant products, including Peraside, NeoKlor, AquaPrime, and Siloxycide, are used to clean water lines and provide continuous disinfection of a livestock facility's water supply.

Insecticides. Neogen's highly effective insecticides utilize environmentally friendly technical formulas, and several are approved for use in food establishments and by pest control professionals in a wide range of environments. The Company's Prozap insecticide brand is used in the large animal production industry, particularly with dairy and equine producers. Neogen's SureKill line of products is used by professionals to control a variety of insects and the Company's StandGuard Pour-on solution, acquired in July 2020, is used for horn fly and lice control in beef cattle.

Animal genomics services. Neogen Genomics, formerly known as GeneSeek, provides value-added services to leading agricultural genetics providers, large national cattle associations, companion animal breed registries and direct to consumer canine genetic test providers, university researchers, and numerous commercial beef and dairy cattle, swine, sheep and poultry producers. With state-of-the-art genomics laboratories and the comprehensive bioinformatics to interpret genomics test results, Neogen Genomics offers identity and trait determination and analysis. Our technology employs high-density DNA genotyping and genomic sequencing for identity and trait analysis in a variety of important animal and agricultural plant species. Our extensive bioinformatics database identifies and predicts an animal's positive or negative traits based on DNA test results. This information has helped livestock producers increase the speed of genetic improvement in their herds and overall performance and quality of their animals.

Life sciences. Neogen's line of approximately 100 drug detection immunoassay test kits is sold worldwide for the detection of approximately 300 abused and therapeutic drugs in farm animals and racing animals, and for the detection of drug residues in meat and meat products. The test kits are also used for human forensic toxicology drug screening applications. This line includes tests for narcotics, analgesics, stimulants, depressants, tranquilizers, anesthetics, steroids and diuretics. Neogen also has several products used by researchers for the detection of biologically active substances.

Many of the products and services in the Animal Safety segment use licensed technology. In fiscal year 2021, the Animal Safety segment incurred expense totaling $331,000 for royalties for licensed technology used in our products and services, including expense of $213,000 related to the genomics services line.

Neogen's operation in Australia originally focused on providing genomics services and sales of animal safety products and reports through the Animal Safety segment. With the acquisition of Cell BioSciences in February 2020, our Australian operation has expanded to offer our complete line of products and services, including those usually associated with the Food Safety segment. These additional products are managed and directed by existing management at Neogen Australasia and report through the Animal Safety segment.

Revenues from Neogen's Animal Safety segment accounted for 50.0%, 49.1%, and 48.5% of our total revenues for fiscal years ended May 31, 2021, 2020 and 2019, respectively.

GENERAL SALES AND MARKETING

Neogen is organized under two segments — Food Safety and Animal Safety. Within these segments, our sales efforts are generally organized by specific markets, and/or geography. During the fiscal year that ended May 31, 2021, we had approximately 33,000 customers for our products. As many of our customers are distributors and certain animal safety products are offered to the general retail market, the total number of end users of our products is considerably greater than 33,000. As of May 31, 2021, a total of 494 employees were assigned to sales and marketing functions, compared to 507 at the end of May 2020. During the fiscal years ended May 31, 2021, 2020 and 2019, no single customer or distributor accounted for 10% or more of our revenues.

DOMESTIC SALES AND MARKETING

FOOD SAFETY

To reach each customer and prospect with expertise and experience, Neogen has a staff of specialized food safety sales and technical service representatives assigned to specific markets or geographies. This staff sells our products directly to end users, and also handles technical support issues that arise with customers in the United States.

Neogen's food safety markets are primarily comprised of:

- **Milling and grain**, including grain elevators, feed mills, pet food manufacturers, and grain inspection companies;
- **Meat and poultry**, including meat and poultry processors, producers of ready-to-eat meat and poultry products, and the USDA's Food Safety Inspection Service (FSIS);
- **Prepared foods and ingredients**, including flour millers, malters, bakeries, candy and confection manufacturers, manufacturers of prepared meals, nuts, spices, cookies, crackers and other snack foods;
- **Fruits and vegetables**, including growers and processors of juice and packaged fresh cut grocery items;
- **Seafood**, including harvesters and processors of a wide variety of seafood products;
- **Dairy**, including milk and yogurt processors;
- **Beverage**, including soft drink bottlers and beer and wine producers;
- **Water,** including food producers, water bottlers and municipal water departments;
- **Healthcare**, including hospitals and distributors to the healthcare industry;
- **Traditional culture media markets**, including commercial and research laboratories and producers of pharmaceuticals, cosmetics and veterinary vaccines;
- **Food service**, including fast food service establishments and retail grocery market chains; and
- **Dietary supplements**, including producers and marketers of a wide variety of nutritional and holistic consumer products.

ANIMAL SAFETY

Neogen's staff of specialized animal safety sales, marketing, customer and technical service representatives sell our products and services directly to consumers, dealers, veterinarians, distributors and other manufacturers and also handle domestic technical support issues. Neogen further supports its distribution channels through product training, field support, various promotions and advertising.

Neogen's animal safety markets are primarily comprised of:

- **Companion animal veterinarians.** Neogen has a dedicated sales group that sells and technically supports the Company's animal care, biosecurity and disposable products to the companion animal veterinary market.
- **Livestock producers, veterinarians and breed associations.** Neogen has a dedicated group of sales professionals that sells the Company's comprehensive suite of biosecurity and husbandry products and genomics services directly to livestock producers, and livestock veterinarians and veterinary clinics.
- **Distributors.** To expand the reach of its animal safety OTC and veterinary products, Neogen has a dedicated sales team that sells the Company's products to animal health product distributors.
- **Retailers.** Neogen offers select animal care and biosecurity products directly to large farm and ranch retailers for sale to consumers.
- **Breeding and genetics companies.** Neogen has sales professionals who sell directly to the large dairy artificial insemination providers, poultry and swine genetics companies and the aquaculture industry.
- **Diagnostic labs and universities.** Neogen has a dedicated lab, manufacturing, sales and technical service group that calls on large commercial and forensic testing laboratories and universities.
- **Other manufacturers and government agencies.** Neogen has an experienced group of professionals who work directly with other manufacturers and government agencies to provide custom solution products and services for their needs.

INTERNATIONAL SALES AND MARKETING

Neogen maintains 16 Company-owned locations outside of the United States to provide a direct presence in regions of particular importance to us; we maintain an extensive network of distributors to reach countries where we do not have a direct presence.

Neogen Europe and subsidiaries. Neogen Europe, Ltd., headquartered in Ayr, Scotland, sells products and services to our network of customers and distributors throughout the United Kingdom (U.K.), Europe, the Middle East and Africa. Customers in the U.K., France, Germany, Italy and the Netherlands are served by our employees. In other regions, customers are generally serviced by distributors managed by Neogen Europe personnel.

Neogen Europe management is also responsible for Neogen's other European operations, which include:

- Quat-Chem, Ltd., a Rochdale, England-based chemical company that specializes in the development, manufacture and sale of agricultural, industrial, and food processing biocidal hygiene products, including cleaners and disinfectants. Quat-Chem sells its products on a global basis, with a focus on markets in the U.K., Europe, Middle East, Africa and Asia.
- Neogen Italia, a Milan, Italy-based business, which directly markets and sells Neogen's products in Italy.
- Megazyme, Ltd., a Bray, Ireland-based food quality diagnostics company, acquired in December 2020, which develops and refines the analytical methods used to measure the carbohydrates and enzymes in food and feed products that affect quality.

Neogen Europe has two additional manufacturing locations in:

- Heywood, England, which manufactures an extensive range of microbiological culture media, supplements and immunomagnetic separation techniques.
- Liverpool, England, a developer and supplier of culture media supplements and microbiology technologies.

Neogen Latinoamérica. Neogen Latinoamérica is headquartered near Mexico City and distributes Neogen's products throughout Mexico and Central America. Neogen Latinoamérica manages our business activities throughout the region by marketing to animal and crop producers and food processors, utilizing our direct sales representatives to sell Food Safety products and genomics services, while marketing cleaners, disinfectants and other Animal Safety products primarily through distributors.

Neogen Argentina, Neogen Uruguay and Neogen Chile. In January 2020, Neogen acquired Productos Quimicos Magiar and Lakenord S.A. (Magiar Uruguay), distributors of Neogen's food safety diagnostics products for the past 20 years, with operations in Argentina and Uruguay, respectively. In March 2020, Neogen acquired the assets of Chile-based Magiar Chilena, a distributor of food, animal, and plant diagnostics, including Neogen products. With the acquisitions, the former Magiar operations remain in the three countries and provide Neogen with a physical presence in the important agricultural Southern Cone region of South America, which has large beef and dairy populations with significant export markets. The operations are managed through Neogen's Latin American operations and offer direct sales of Neogen food safety, animal safety and genomics products into Argentina, Uruguay and Chile.

Neogen do Brasil. Neogen do Brasil, headquartered near São Paulo, distributes Neogen's products throughout Brazil. Brazil is a world leader in the export of numerous food commodities, including beef, poultry, soybeans, coffee, corn, sugar and orange juice, and this operation gives us direct sales representation to these important markets. Neogen do Brasil management is also responsible for manufacturing, marketing and sales for Rogama, located in Pindamonhangaba, Brazil. This company operates a genomics testing laboratory (formerly named Deoxi) and develops, manufactures and markets rodenticides and insecticides. Rogama offers more than 70 registered pest control products to Brazil's agronomic, professional and retail markets.

Neogen China. Our Chinese subsidiary, located in Shanghai, employs sales representatives who sell directly to Chinese customers. China's burgeoning middle class, with its rapidly growing demand for higher quality meat and dairy products, makes the country a growth opportunity for Neogen's products and services — both for animal production on the country's farms, and in processing plants throughout China's food production and distribution channels. The business also operates a genomics testing laboratory. We utilize both direct sales representatives and distributors to sell our complete portfolio in this growing market.

Neogen India. This business operates an accredited laboratory which performs food safety and water quality testing for food producers, major hotels and restaurants in its home region, as well as safety and quality analysis for the country's expanding nutraceutical market, and growing food export businesses. The laboratory is located in Kochi, in the state of Kerala, which is India's leading region for the export of spices, tea, and fresh fruits and vegetables. Neogen India is also responsible for sales of our food safety and animal safety products to customers and distributors in India and nearby countries.

Neogen Australasia. Neogen Australasia operates a genomics testing laboratory, focusing on the sheep and cattle markets in Australia and New Zealand, and also directly markets and sells our food and animal safety products in those countries.

Neogen Canada. This business operates a genomics testing laboratory in Edmonton, Alberta.

Other distributor partners. Outside of our physical locations, Neogen uses our own sales managers in both the Food Safety and Animal Safety segments to work closely with and coordinate the efforts of a network of approximately 400 distributors in more than 100 countries. The distributors provide local training and technical support, perform market research and promote Company products within designated countries around the world.

Sales to customers outside the United States accounted for 39.1%, 39.4%, and 40.1% of our total revenues for fiscal years ended May 31, 2021, 2020 and 2019, respectively. No individual foreign country contributed 10% or more of our revenues for those same periods.

RESEARCH AND DEVELOPMENT

Management maintains a strong commitment to Neogen's research and development activities. Our product development efforts are focused on the enhancement of existing products and on the development of new products that fit our business strategy. As of May 31, 2021, we employed 112 scientists and support staff in our worldwide research and development group, including immunologists, chemists and microbiologists. Research and development costs were approximately $16.3 million, $14.8 million, and $12.8 million representing 3.5%, 3.5%, and 3.1% of total revenues in fiscal years 2021, 2020 and 2019, respectively. Management currently expects our future research and development expenditures to approximate 3% of total revenues annually.

Neogen has ongoing development projects for several new and improved diagnostic tests and other complementary products for both the Food Safety and Animal Safety markets. Management expects that a number of these products will be commercially available at various times during fiscal years 2022 and 2023.

Certain technologies used in some products manufactured and marketed by Neogen were acquired from or developed in collaboration with affiliated partners, independent scientists, governmental agencies, universities and other third parties. We have entered into agreements with these parties that provide for the payment of royalties based upon sales of products that use the pertinent licensed technology. Royalties, expensed to sales and marketing, under these agreements amounted to $2,129,000, $2,524,000, and $2,795,000 in fiscal years 2021, 2020 and 2019, respectively.

PROPRIETARY PROTECTION AND APPROVALS

Neogen uses trade secrets as proprietary protection in many of its food and animal safety products. In many cases, we have developed unique antibodies capable of detecting microorganisms and residues at minute levels. The supply of these antibodies, and the proprietary techniques utilized for their development, may offer better protection than filing patents. Such proprietary reagents are maintained in secure facilities and stored in more than one location to reduce exposure to complete destruction by natural disaster or other means.

Patent and trademark applications are submitted whenever appropriate. Since its inception, Neogen has acquired and been granted numerous patents and trademarks, and has numerous pending patents and trademark applications. The patents expire at various times over the next 21 years.

A summary of patents by product categories follows:

	USA	International	Expiration
Natural Toxins, Allergens, & Drug Residues	19	36	2021-2042
Bacterial & General Sanitation	1	0	2022
Life Sciences	0	3	2024
Vaccine	1	0	2028
Veterinary Instruments & Other	11	33	2021-2042
Genomics Services	18	4	2021-2029

We do not expect the near-term expiration of any single patent to have a significant effect on future results of operations.

Management believes that Neogen has adequate rights to commercialize our products. However, we are aware that substantial research is conducted at universities, governmental agencies and other companies throughout the world and that it is always possible that patents have been applied for and could be granted that are relevant to technologies that may be used in our products. To the extent some of our products may now, or in the future, embody technologies protected by patents or trade secrets of others, we may need to obtain licenses to use such technologies to continue to sell the products. These licenses may not be available on commercially reasonable terms. Failure to obtain any such licenses could delay or prevent the sale of certain new or existing products. In addition, patent litigation is not uncommon. Accordingly, there can be no assurance that we will continue to have adequate rights to commercialize our new products or that we will avoid litigation.

One of the major areas affecting the success of biotechnology development involves the time, cost and uncertainty surrounding regulatory approvals. Neogen products requiring regulatory approval, which we currently have in place, include BotVax B, EqStim, ImmunoRegulin, Uniprim and BetaStar. Our general strategy is to focus on technical and proprietary products that do not require mandatory approval by regulatory bodies to be marketed. Neogen's rodenticide, disinfectant, and insecticide products are subject to registration in the United States and internationally.

Neogen utilizes third-party validations on many of our disposable test kits to provide our customers with assurances that our products perform to specified levels. These include validation by the AOAC International, independently administered third-party, multi-laboratory collaborative studies and approvals by the USDA Food Safety Inspection Service for the use of our products in their operations.

PRODUCTION AND SUPPLY

Neogen manufactures our products in Michigan, Kentucky, Wisconsin, North Carolina, Iowa, Tennessee, California, Ireland, the United Kingdom and Brazil and provides genomics services in Nebraska, Scotland, Brazil, Australia, China and Canada. As of May 31, 2021, there were approximately 920 full-time employees assigned to manufacturing operations and providing of services in these locations, operating on multiple shift schedules; with occasional 24/7 production during high demand periods. Future demand increases could be accommodated by adding shifts. Management believes we could increase the current output of our primary product lines by more than 30% using the current space available; however, to do so would require investment in additional equipment.

Food safety diagnostics. Manufacturing of diagnostic tests for the detection of natural toxins, pathogens, food allergens, dairy antibiotics, spoilage organisms and pesticides, final kit assembly, quality assurance and shipping takes place at our facilities in Lansing, Michigan. Proprietary monoclonal and polyclonal antibodies for Neogen's diagnostic kits are produced on a regular schedule in our immunology laboratories in Lansing. Generally, final assembly and shipment of diagnostic test kits to customers in Europe is performed in our Ayr, Scotland facility. Most of the Company's food safety diagnostic instruments and readers are produced by third-party vendors to our specifications, quality tested in Lansing, and then shipped to customers. Culture media products are manufactured in an ISO-approved facility in Lansing and in Heywood and Liverpool, England. Products are blended following strict formulations or custom blended to customer specifications and shipped directly to customers from Lansing and the United Kingdom. The Heywood location produces prepared media plates, sterile liquid media, and other related products in ready to use format for food testing laboratories across the U.K. and western Europe. Enzyme substrates are manufactured at Megazyme in Bray, Ireland.

Animal health products. Manufacturing of animal health products, pharmacological diagnostic test kits and test kits for drug residues takes place in our FDA-registered facilities in Lexington, Kentucky. In general, manufacturing operations including reagent manufacturing, quality assurance, final kit assembly and packaging are performed by Neogen personnel. Certain animal health products and veterinary instruments that are purchased finished or that are toll manufactured by third party vendors are warehoused and shipped from our Lexington facilities. Other veterinary instruments are produced in our facilities in Lansing, and are generally then shipped to Lexington for distribution to customers. Manufacturing and shipment of devices used for animal injections, topical applications and oral administration occurs in Kenansville, North Carolina.

Veterinary biologics. Neogen maintains a Lansing-based USDA-approved manufacturing facility devoted to the production of the biologic products EqStim and ImmunoRegulin. *P.acnes* seed cultures are added to media and then subjected to several stages of further processing resulting in a finished product that is filled and packaged within the facility. Our BotVax B vaccine is also produced in the Lansing facility utilizing Type B botulism seed cultures and a traditional fermentation process. All completed biologic products are then shipped to Neogen's Lexington facilities where they are inventoried prior to distribution to customers.

Agricultural genomics services. Neogen offers agricultural genomics laboratory services and bioinformatics at our locations in Nebraska, Scotland, Brazil, Australia, China and Canada. Through our laboratory services and bioinformatics (primarily in beef and dairy cattle, pigs, sheep, poultry, horses and dogs), Neogen Genomics allows our customers to speed genetic improvement efforts, as well as identify economically important diseases.

Cleaners, disinfectants and rodenticides. Manufacturing of rodenticides and/or cleaners and disinfectants takes place in the following locations: Randolph, Wisconsin; Memphis, Tennessee; Turlock, California; Rochdale, England; and Pindamonhangaba, Brazil. Manufacturing of rodenticides consists of blending technical material (active ingredient) with bait consisting principally of various grains. Certain cleaners and disinfectants are manufactured in Neogen facilities, while others are purchased from other manufacturers for resale, or toll manufactured by third parties.

Insecticides. Neogen manufactures insecticides and other pesticides at its facilities in Pleasantville, Iowa and Pindamonhangaba, Brazil.

Neogen purchases component parts and raw materials from more than 1,000 suppliers. Though many of these items are purchased from a single source to achieve the greatest volume discounts, we believe we have identified acceptable alternative suppliers for most of our key components and raw materials where it is economically feasible to do so. There can be no assurance that we would avoid a disruption of supply in the event a supplier discontinues shipment of product. Shipments of higher volume products are generally accomplished within a 48-hour turnaround time. Our backlog of unshipped orders at any given time has historically not been significant.

COMPETITION

Although competitors vary in individual markets, management knows of no single competitor that is pursuing Neogen's fundamental strategy of developing and marketing a broad line of products, ranging from disposable tests and culture media to veterinary pharmaceuticals and instruments for a large number of food safety and animal safety concerns. For each of our individual products or product lines, we face intense competition from companies ranging from small businesses to divisions of large multinational companies. Some of these organizations have substantially greater financial resources than Neogen. We compete primarily on the basis of ease of use, speed, accuracy and other similar performance characteristics of our products. The breadth of our product line, the effectiveness of our sales and customer service organizations, and pricing are also components in management's competitive strategy.

Future competition may become even more intense, and could result from the development of new technologies, which could affect the marketability and profitability of Neogen's products. Our competitive position will also depend on our ability to continue to develop proprietary products, attract and retain qualified scientific and other personnel, develop and implement production and marketing plans and obtain patent protection for new products. Additionally, we must continue to generate or have access to adequate capital resources to execute our strategy.

FOOD SAFETY:

With a large professional sales organization offering a comprehensive catalog of food safety solutions, management believes we maintain a general advantage over competitors offering only limited product lines. In most cases, Neogen sales and technical service personnel can offer unique insight into a customer's numerous safety and quality challenges, and offer testing and other solutions to help the customer overcome those challenges.

Competition for pathogen detection products includes traditional methods and antibody and genetic-based platforms; competition for natural toxins and allergen detection products include instrumentation and antibody-based tests. While our offerings will not always compete on all platforms in all markets, the products we offer provide tests that can be utilized by most customers to meet their testing needs.

In addition to our extensive product offerings and robust distribution network, we focus our competitive advantage in the areas of customer service, product performance, speed, and ease of use of our products. Additionally, by aggressively maintaining Neogen's ability to produce at low cost, we believe that we can be competitive with new market entrants that may choose a low pricing strategy in an attempt to gain market share.

ANIMAL SAFETY:

Neogen's Animal Safety segment faces no single competitor across the products and markets we serve. In the racing industry market, we believe we hold a leading market share position. In the life sciences and forensics markets, we compete against several other diagnostic and reagent companies with similar product offerings.

In the veterinary market, Neogen markets BotVax B, the only USDA-approved vaccine for the prevention of botulism Type B in horses. We compete on other key products through differentiated product performance and superior customer and technical support. With some of our products, we provide solutions as a lower cost alternative and also offer a private label option for our distributors.

Competition in the rodenticide market includes several companies of comparable size that offer products into similar market segments. The retail rodenticide market is not dominated by a single brand. While the technical materials used by competing companies are similar, Neogen uses manufacturing and bait formula techniques which we believe may better attract rodents to the product and thereby improves overall product performance.

Within the insecticide market, Chem-Tech products specifically focus on the area of insect control for food and animal safety applications. There are several competitors offering similar products, however, we have a proprietary formulation chemistry that optimizes the delivery and safe application of insecticides at the customer's location. These products are currently only sold in the U.S. through a combination of direct sales and distributors.

Numerous companies, including a number of large multinationals, compete for sales in the cleaner and disinfectant product segment. Neogen's broad line of products are sold through our distributor network around the world, primarily to assist in the cleaning and disinfecting of animal production facilities.

In addition to our extensive portfolio of Animal Safety products, Neogen also competes in the retail market by providing solutions to common retail problems, such as stock outs, wasted floor space and inconsistent brand identity. We differentiate ourselves by offering planograms and convenient reordering systems to maximize turns and profitability for our retail customers.

Neogen Genomics, the leading worldwide commercial agricultural genomics laboratory in the U.S., employs cutting-edge technology in the area of genomics. The result of this technology allows the acceleration of natural selection through parentage testing and selective breeding of traits such as disease resistance, yield improvement and meat quality. Competition comes mainly from a number of service providers, some significantly larger than us as well as several smaller companies offering genomics services. Neogen Genomics is not involved in cloning or the development of transgenic animals.

GOVERNMENT REGULATION

A significant portion of Neogen's products and revenues are affected by the regulations of various domestic and foreign government agencies, including the U.S. Department of Agriculture (USDA), the Environmental Protection Agency (EPA) and the U.S. Food and Drug Administration (FDA). Changes in these regulations could affect revenues and/or costs of production and distribution.

Neogen's development and manufacturing processes involve the use of certain hazardous materials, chemicals and compounds. Management believes that our safety procedures for handling and disposing of such commodities comply with the standards prescribed by federal, state and local regulations; however, changes in such regulations or rules could involve significant costs to us and could be materially adverse to our business.

The rodenticides, insecticides, cleaners, disinfectants, and sanitizers manufactured and distributed by Neogen are subject to EPA and various state regulations. In general, any international sale of our products must also comply with similar regulatory requirements in the country of destination. Each country has its own individual regulatory construct with specific requirements (e.g., label in the language of the importing country). To the best of our knowledge, Neogen products are compliant with applicable regulations in the countries where such products are sold.

Dairy diagnostic products used in National Conference on Interstate Milk Shipments (NCIMS), a cooperative program involving FDA, state governments and the industry, must first be approved prior to commercialization. Before products requiring NCIMS approval can be sold in the U.S., extensive product performance data must be submitted in accordance with FDA-approved protocol administered by the AOAC Research Institute (AOAC RI). Following approval of a product by NCIMS, the product must be reviewed by the FDA. Our BetaStar Advanced U.S. dairy antibiotic residue testing product has been reviewed and/or approved by the appropriate regulatory bodies.

Many of the food safety diagnostic products do not require direct government approval. However, we have pursued AOAC approval for a number of these products to enhance their marketability.

Neogen's veterinary vaccine products and some pharmaceutical products require government approval to allow for lawful sales. The vaccine products are approved by the U.S. Department of Agriculture, Center for Veterinary Biologics (USDA-CVB) and the pharmaceutical products are approved by the FDA. The products, and the facilities in which they are manufactured, are in a position of good standing with both agencies. We have no warning letters based on any review of these products or facility inspection, no recalls on any of these products, and are not aware of any reason why we could not manufacture and market such products in the future.

Other animal safety and food safety products generally do not require additional registrations or approvals. However, Neogen's regulatory staff routinely monitors amendments to current regulatory requirements to ensure compliance.

Human Capital Management

Our people are a critical component in our continued success. As a team, they put Neogen's core values into action, while executing on key growth initiatives to maintain long-term sustainable growth. We strive to create a workplace of choice to attract, retain and develop top talent to achieve our vision and deliver shareholder results. As of May 31, 2021, we employed 1,841 full-time persons worldwide. None of these employees are covered by collective bargaining agreements. We adhere to a philosophy that includes, among other things, commitments to create ongoing job opportunities, pay fair wages, and protect worker health and safety. Fundamental to these commitments are Neogen's Pillars of Trust, consisting of openness, honesty, credibility, respect and service. Management considers its relations with employees to generally be positive.

ITEM 1A. RISK FACTORS

Investing in our securities involves a variety of risks and uncertainties, known and unknown, including, among others, those discussed below. Each of the following risks should be carefully considered, together with all the other information included in this Annual Report on Form 10-K, including our consolidated financial statements and the related notes and in our other filings with the SEC. Furthermore, additional risks and uncertainty not presently known to us or that we currently believe to be immaterial may also adversely affect our business. Our business, results of operations, financial condition, and cash flow could be materially and adversely affected by any of these risks or uncertainties.

RISKS RELATING TO COVID-19

The ongoing effects of the COVID-19 pandemic could adversely affect our business, results of operations and financial condition.

Since March 2020, the COVID-19 pandemic has negatively impacted the global economy, disrupted global supply chains, and created significant volatility and disruption of financial markets.

The extent of the impact of the COVID-19 pandemic on our operational and financial performance, including our ability to execute our business strategies and initiatives in the expected time frame, continues to depend on many factors outside our control, including, without limitation, the timing, extent, trajectory and duration of the pandemic, related restrictions on travel and transports, the development and availability of effective treatments and vaccines, the imposition of protective public safety measures, and the impact of the pandemic on the global economy and consumer demand.

During the course of the pandemic, we modified our business practices to comply with safety measures required by federal, state, and local governments, as well as those we determine to be in the best interests of our employees and customers, including implementing social distancing, remote work, reducing employee travel, restricting building access, and more. In taking such precautionary actions, we may experience disruptions in our supply chain, operations, facilities, and workforce, which could negatively affect efficiency and productivity, cause delays in developing new products, our ability to market products and services, and, ultimately, our stock price and financial performance.

Additional future impacts to us may include, but are not limited to, material adverse effects on the demand for our products and services, our supply chain and sales and distribution channels, our cost structure and profitability. An extended period of global supply chain and economic disruption could materially affect our business, results of operations, and financial condition.

While we expect a solid recovery, in part due to increasing vaccination rates across the world, we also are aware that there may be a reduction in demand for our COVID-19-related products and services, including sanitizers, disinfectants, and wastewater testing as cases of COVID-19 decrease.

The situation is changing rapidly, and future impacts may materialize that are not yet known. To the extent the COVID-19 pandemic adversely affects our business, results of operations, financial condition and stock price, it may also have the effect of heightening many of the other risks described in this section.

RISKS RELATING TO OUR BUSINESS AND INDUSTRY

Our business strategy is dependent on successfully promoting internal growth and identifying and integrating acquisitions.

Our business has grown significantly over the past several years as a result of both internal growth and acquisitions of existing businesses and their products. Management initiatives may be attempted to augment internal growth, such as strengthening our presence in select markets, reallocating research and development funds to products with higher growth potential, development of new applications for our technologies, enhancing our service offerings, continuing key customer efforts, and finding new markets for our products. Failure of these management initiatives may have a material adverse effect on our operating results and financial condition.

Identifying and pursuing acquisition opportunities, integrating these acquisitions into our business and managing their growth requires a significant amount of management’s time and skill. We cannot assure that we will be effective in identifying, integrating or managing future acquisition targets. Our failure to successfully integrate and manage a future acquisition may have a material adverse effect on our operating results and financial condition.

In addition, if we continue to experience growth in our business, such growth could place a significant strain on our management, customer service, operations, sales and administrative personnel, and other resources. To serve the needs of our existing and future customers we will be required to recruit, train, motivate and manage qualified employees. We have incurred and will continue to incur significant costs to retain qualified management, sales and marketing, engineering, production, manufacturing and administrative personnel, as well as expenses for marketing and promotional activities. Our ability to manage our planned growth depends upon our success in expanding our operating, management, information and financial systems, which might significantly increase our operating expenses.

We may not be able to effectively manage our future growth, and if we fail to do so, our business, financial condition and results of operations could be adversely affected.

We rely significantly on our information systems' infrastructure to support our operations and a failure of these systems and infrastructure and/or a security breach of our information systems could damage our reputation and have an adverse effect on operations and results.

We rely on our information systems' infrastructure to integrate departments and functions, to enhance our ability to service customers, to improve our control environment and to manage our cost reduction initiatives. If a security breach or cyberattack of our IT networks and systems occurs, our operations could be interrupted. Any issues involving our critical business applications and infrastructure may adversely impact our ability to manage our operations and the customers we serve. Although we have controls and security measures in place to prevent such attacks, experienced computer hackers are increasingly organized and sophisticated. Malicious attack efforts operate on a large-scale and sometimes offer targeted attacks as a paid-for service. In addition, the techniques used to access or sabotage networks change frequently and generally are not recognized until launched against a target.

We rely on several information systems throughout our company, as well as those of our third-party business partners, to provide access to our web-based products and services, keep financial records, analyze results of operations, process customer orders, manage inventory, process shipments to customers, store confidential or proprietary information and operate other critical functions. Although Neogen employs system backup measures and engages in information system redundancy planning and processes, such measures, as well as our current disaster recovery plan, may be ineffective or inadequate to address all vulnerabilities. Further, our information systems and our business partners' and suppliers' information systems may be vulnerable to attacks by hackers and other security breaches, including computer viruses and malware, through the Internet (including via devices and applications connected to the Internet), email attachments and persons with access to these information systems, such as our employees or third parties with whom we do business. As information systems and the use of software and related applications by us, our business partners, suppliers, and customers become more cloud-based, there has been an increase in global cybersecurity vulnerabilities and threats, including more sophisticated and targeted cyber-related attacks that pose a risk to the security of our information systems and networks and the confidentiality, availability and integrity of data and information.

While we have implemented network security and internal control measures, especially for the purpose of protecting our connected products and services from cyberattacks, and invested in our data and information technology infrastructure, there can be no assurance that these efforts will prevent a system disruption, attack, or security breach and, as such, the risk of system disruptions and security breaches from a cyberattack remains.

If our security and information systems are compromised, or employees fail to comply with the applicable laws and regulations, or this information is obtained by unauthorized persons or used inappropriately, it could adversely affect our reputation, as well as results of operations, and could result in litigation, the imposition of penalties, or significant expenditures to remediate any damage to persons whose personal information has been compromised.

In addition, COVID-19 may have an adverse impact on our information technology systems, including telecommuting issues associated with the rapid and broad-based shift in our employee population working remotely, which creates inherent productivity, connectivity and oversight challenges.

Disruption of our manufacturing and service operations could have an adverse effect on our financial condition and results of operations.

We manufacture our products at several manufacturing facilities located in the following locations: Lansing, Michigan; Lexington, Kentucky; Randolph, Wisconsin; Kenansville, North Carolina; Pleasantville, Iowa; Memphis, Tennessee; Turlock, California; Heywood, England; Liverpool, England; Ayr, Scotland; Rochdale, England; Bray, Ireland; and Pindamonhangaba, Brazil. We offer genomics services from facilities located in: Lincoln, Nebraska; Ayr, Scotland; Pindamonhangaba, Brazil; Edmonton, Canada; Shanghai, China; and Gatton, Australia. These facilities and our distribution systems are subject to catastrophic loss due to fire, flood, terrorism or other natural or man-made disasters. If any of these facilities were to experience a catastrophic loss, it could disrupt our operations, delay production, shipments and revenue and result in significant expenses to repair or replace the facility and/or distribution system. If such a disruption were to occur, we could breach agreements, our reputation could be harmed, and our business and operating results could be adversely affected. Although we carry insurance for property damage and business interruption, we do not carry insurance or financial reserves for interruptions or potential losses arising from terrorism. Economic conditions and uncertainties in global markets may adversely affect the cost and other terms upon which we are able to obtain third party insurance. If we are unable to obtain sufficient and cost-effective third-party insurance coverage, or to the extent we have elected to self-insure, we may be at greater risk that our operations will be harmed by a catastrophic loss.

Our dependence on suppliers could limit our ability to sell certain products or negatively affect our operating results.

We rely on third-party suppliers to provide raw materials and other components in our products, manufacture products that we do not manufacture ourselves and perform services that we do not provide ourselves. Because these suppliers are independent third parties with their own financial objectives, actions taken by them could have a negative effect on our results of operations. The risks of relying on suppliers include our inability to enter into contracts with third party suppliers on reasonable terms, inconsistent or inadequate quality control, relocation of supplier facilities, supplier work stoppages and suppliers' failure to comply with their contractual obligations. In addition, we currently purchase some raw materials and products from sole or single sources. Some of the products that we purchase from these sources are proprietary and, therefore, cannot be readily or easily replaced by alternative sources. Problems with suppliers could negatively impact our ability to supply the market, substantially decrease sales, lead to higher costs or damage our reputation with our customers.

We rely heavily on third-party package delivery services, and a significant disruption in these services or significant increases in prices may disrupt our ability to ship products, increase our costs and lower our profitability.

We ship a significant portion of our products to customers through independent package delivery companies, such as UPS, Federal Express and DHL. We also ship our products through other carriers, including national and regional trucking firms, overnight carrier services and the U.S. Postal Service. If one or more of these third-party package delivery providers were to experience a major work stoppage, preventing our products from being delivered in a timely fashion or causing us to incur additional shipping costs we could not pass on to our customers, our costs could increase and our relationships with some of our customers could be adversely affected. In addition, if one or more of our third-party package delivery providers were to increase prices, and we were not able to find comparable alternatives or make adjustments within our delivery network, our profitability could be adversely affected.

Our business sells many products through distributors, which present risks that could negatively affect our operating results.

We sell many of our products, both within and outside of the U.S., through distribution. As a result, we are dependent on distributors to sell our products and assist us in promoting and creating a demand for our products. Our distributors sometimes offer products from several different companies, and those distributors may carry our competitors' products and promote our competitors' products over our own. We have limited ability, if any, to cause our distributors to devote adequate resources to promoting, marketing, selling and supporting our products. We cannot assure that we will be successful in maintaining and strengthening our relationships with our distributors or establishing relationships with new distributors who have the ability to market, sell and support our products effectively. We may rely on one or more key distributors for a product or region, and the loss of one or more of these distributors could reduce our revenue. Distributors could face financial difficulties, including bankruptcy, which could impact our ability to collect our accounts receivable and negatively impact our financial results. In addition, violations of anti-bribery and anti-corruption or similar laws by our distributors could have a material impact on our business. Further, termination of a distributor relationship could result in increased competition in the applicable jurisdiction. Failing to manage the risks associated with our use of distributors could reduce sales, increase expenses and weaken our competitive position, which could have a negative impact on our operating results.

The development of new products entails substantial risk of failure due to the production of non-viable products, lack of properly identifying market potential, and competitors better serving the marketplace.

Our growth strategy includes significant investment in and expenditures for product development. To execute this strategy, we are continually developing new products for which we believe there should be significant market demand. We cannot assure that we will successfully develop commercially viable products, that the products will be developed on a timely basis to meet market demand or that the relevant market will be properly identified. Our competitors may also adapt more quickly, and deliver superior technologies, price and/or service to better fit our customers' requirements. If we expend substantial resources in developing an unsuccessful product, whether that lack of success is the result of our production of a non-viable product, a misidentified market, or a competitor's superior ability to meet our customers' requirements, operating results could be adversely affected.

The markets for our products are extremely competitive, and our competitors could use existing resource advantages to our detriment.

The markets in which we compete are subject to rapid and substantial changes in technology and are characterized by extensive research and development and intense competition. Our competitors and potential competitors may have greater financial, technical, manufacturing, marketing, research and development and management resources than we do. These competitors could use their resources, reputations and ability to leverage existing customer relationships to give them a competitive advantage over us. They might also succeed in developing products that are more reliable and effective than our products, are less costly than our products or provide alternatives to our products.

We are dependent on the agricultural marketplace, which is affected by factors beyond our control.

Our primary customers are in the agricultural and food production industries. Economic conditions affecting agricultural industries are cyclical and are dependent upon many factors outside of our control, including weather conditions, changes in consumption patterns or commodity prices. Any of these factors in the agricultural marketplace could affect our sales and overall financial performance.

RISKS RELATED TO AN INVESTMENT IN OUR SECURITIES

Our quarterly or annual operating results are subject to significant fluctuations.

We have experienced, and may experience in the future, significant fluctuations in our quarterly or annual operating results. The mix of products sold and the acceptance of new products, in addition to other factors such as cost increases, could contribute to this variability. We operate with relatively little backlog and have few long-term customer contracts. Substantially all our product revenue in each period results from orders received in that period. In addition, our expense levels are based, in part, on our expectation of future revenue levels. Therefore, a shortfall in expected revenue could result in a disproportionate decrease in our net income.

The market price of our common stock may be highly volatile.

The trading price of our common stock may be volatile. Securities markets worldwide experience significant price and volume fluctuations. This market volatility, as well as other general economic, market or political conditions, could reduce the market price of our common stock rapidly and unexpectedly, despite our operating performance. Factors that may impact the market price of our common stock include the factors described in this "Risk Factors" section and elsewhere in this Form 10-K, as well as:

- Public announcements (including the timing of these announcements) regarding our business, financial performance, acquisitions and prospects or new products or services, product enhancements or technological advances by our competitors or us;
- Trading activity in our stock, including transactions by us, our executive officers and directors, and significant stockholders; trading activity that results from the ordinary course rebalancing of stock indices in which we may be included, such as the S&P Mid-Cap 400 Index; trading activity related to our inclusion in, or removal from, any stock indices; and short-interest in our common stock, which could be significant from time to time;
- Investor perception of us and the industry and markets in which we operate, including changes in earnings estimates or buy/sell recommendations by securities analysts; and whether or not we meet earnings estimates of securities analysts who follow us; and
- General financial, domestic, international, economic, and market conditions, including overall fluctuations in the U.S. equity markets, which may experience extreme volatility that, in some cases, is unrelated or disproportionate to the operating performance of particular companies.

GENERAL RISKS

Our success is highly dependent on our ability to obtain protection for the intellectual property utilized in our products; these products could be the subject of patent infringement challenges.

Our success and ability to compete depends in part on our ability to obtain protection in the U.S. and other countries for our products by establishing and maintaining intellectual property rights capable of protecting our technology and products. Patent applications filed by us may not result in the issuance of patents or, if granted, may not be granted in a form that will be commercially advantageous to us. Even if granted, patents can be challenged, narrowed, invalidated or circumvented, which could limit our ability to stop competitors from marketing similar products or limit the length of time we have patent protection for our products. We also cannot assure that our nondisclosure agreements, together with trade secrets and other common law rights, will provide meaningful protection for our trade secrets and other proprietary information. Moreover, the laws of some foreign jurisdictions may not protect intellectual property rights to the same extent as in the U.S., and many companies have encountered significant difficulties in protecting and defending such rights in foreign jurisdictions. If we encounter such difficulties or we are otherwise precluded from effectively protecting our intellectual property rights domestically or in foreign jurisdictions, we could incur substantial costs and our business, including our business prospects, could be substantially harmed.

From time to time, we have received notices alleging that our products infringe third-party proprietary rights. Whether the manufacture, sale or use of current products, or whether any products under development would, upon commercialization, infringe any patent claim cannot be known with certainty unless and until a court interprets the patent claim in the context of litigation. When an infringement allegation is made against us, we may seek to invalidate the asserted patent claim and/or to allege non-infringement of the asserted patent claim. For us to invalidate a U.S. patent claim, we would need to rebut the presumption of validity afforded to issued patents in the U.S. with clear and convincing evidence of invalidity, which is a high burden of proof. The outcome of infringement litigation is subject to substantial uncertainties, and also the testimony of experts as to technical facts upon which experts may reasonably disagree. Our defense of an infringement litigation lawsuit could result in significant expense. Regardless of the outcome, infringement litigation could significantly disrupt our marketing, development and commercialization efforts, divert management's attention and consume our financial resources. In the event that we are found to infringe any valid claim in a patent held by a third party, we could, among other things, be required to:

- Pay damages, including up to treble damages and the other party's attorneys' fees, which may be substantial;
- Cease the development, manufacture, importation, use and sale of products that infringe the patent rights of others, through a court-imposed injunction;
- Expend significant resources to redesign our technology so that it does not infringe others' patent rights, or develop or acquire non-infringing intellectual property, which may not be possible;
- Discontinue manufacturing or other processes incorporating infringing technology; and/or
- Obtain licenses to the infringed intellectual property, which may not be available to us on acceptable terms, or at all.

Any development or acquisition of non-infringing products, technology or licenses could require the expenditure of substantial time and other resources and could have a material adverse effect on our business and financial results. If we are required to, but cannot, obtain a license to valid patent rights held by a third party, we would likely be prevented from commercializing the relevant product, or from further manufacture, sale or use of the relevant product.

We are subject to substantial governmental regulation.

A portion of our products and facilities are regulated by various domestic and foreign government agencies including, but not limited to, the U.S. Department of Agriculture, the U.S. Food and Drug Administration and the Environmental Protection Agency. A significant portion of our revenue is derived from products used to monitor and detect the presence of residues that are regulated by various government agencies. Furthermore, our growth may be adversely affected by the implementation of new regulations. The costs of compliance or failure to comply with any obligations related to these laws or regulations could adversely impact our business.

We are dependent on key employees.

Our success depends, in large part, on members of our management team. Our loss of any of these, or other key employees could have a material adverse effect on us. We have not executed long-term employment agreements with any of these employees and do not expect to do so in the foreseeable future. Our success depends, significantly, on our ability to continue to attract and retain such personnel. We cannot assure that we will be able to retain our existing personnel or attract additional qualified persons when required and on acceptable terms.

Our business may be subject to product or services liability claims.

The manufacturing and distribution of our products or performance of our services involves an inherent risk of liability claims being asserted against us. Regardless of whether we are ultimately determined to be liable or our products are determined to be defective, we might incur significant legal expenses not covered by insurance. In addition, product liability litigation could damage our reputation and impair our ability to market our products, regardless of the outcome. Litigation could also impair our ability to retain product liability insurance or make our insurance more expensive. Although we currently maintain liability insurance, we cannot assure that we will be able to continue to obtain such insurance on acceptable terms, or that such insurance will provide adequate coverage against all potential claims. If we are subject to an uninsured or inadequately insured product or services liability claim, our business, financial condition and results of operations could be adversely affected.

Our international operations are subject to different product standards as well as other operational risks.

In fiscal 2021, sales to customers outside of the U.S. accounted for 39.1% of our total revenue. We expect that our international business will continue to account for a significant portion of our total sales. Foreign regulatory bodies may establish product standards different from those in the U.S. and with which our current products do not comply. Our potential inability to design products that comply with foreign standards could have a material adverse effect on our future growth. Other risks related to sales to customers outside of the U.S. include possible disruptions in transportation, difficulties in building and managing foreign distribution, fluctuation in the value of foreign currencies, changes in import duties and quotas and unexpected economic and political changes in foreign markets. These factors could negatively impact our competitiveness in these markets or otherwise adversely impact our business results or financial condition. Moreover, discriminatory or conflicting fiscal or trade policies in different countries, including potential changes to tariffs and existing trade policies and agreements, could adversely affect our results.

Changing political conditions could adversely impact our business and financial results.

Changes in the political conditions in markets in which we manufacture, sell or distribute our products may be difficult to predict and may adversely affect our business and financial results. For example, the U.K.'s decision to leave the European Union has created uncertainty regarding, among other things, the U.K.'s future legal and economic framework and how the U.K. will interact with other countries, including with respect to the free movement of goods, services, capital and people. In addition, results of elections, referendums or other political processes in certain markets in which our products are manufactured, sold or distributed could create uncertainty regarding how existing governmental policies, laws and regulations may change, including with respect to sanctions, taxes, the movement of goods, services, capital and people between countries and other matters. The potential implications of such uncertainty, which include, among others, exchange rate fluctuations, trade barriers and market contraction, could adversely affect the Company's business and financial results.

Climate change, or legal, regulatory or market measures to address climate change may materially adversely affect our financial condition and business operations.

Climate change resulting from increased concentrations of carbon dioxide and other greenhouse gases in the atmosphere could present risks to our future operations from natural disasters and extreme weather conditions, such as hurricanes, tornadoes, earthquakes, wildfires or flooding. Such extreme weather conditions could pose physical risks to our facilities and disrupt operation of our supply chain and may impact operational costs. The impacts of climate change on global water resources may result in water scarcity, which could in the future impact our ability to access sufficient quantities of water in certain locations and result in increased costs. Concern over climate change could result in new legal or regulatory requirements designed to mitigate the effects of climate change on the environment. If such laws or regulations are more stringent than current legal or regulatory requirements, we may experience increased compliance burdens and costs to meet the regulatory obligations and may adversely affect raw material sourcing, manufacturing operations and the distribution of our products.

Tax legislation could materially adversely affect our financial results and tax liabilities.

We are subject to the tax laws and regulations of the U.S., including state and local governments, as well as foreign jurisdictions. Legislation may be enacted that could materially adversely affect our financial results There can be no assurance that our effective tax rate will not be adversely affected by legislation.

Our tax expense and liabilities may also be affected by other factors, such as changes in our business operations, acquisitions, investments, entry into new businesses and geographies, intercompany transactions, the relative amount of our foreign earnings, losses incurred in jurisdictions for which we are not able to realize related tax benefits, changes in our stock price, and changes in our deferred tax assets and liabilities and their valuation. In addition, tax laws and regulations are extremely complex and subject to varying interpretations. For example, the legislation known as the U.S. Tax Cuts and Jobs Act of 2017 (the "U.S. Tax Act") requires complex computations to be performed that were not previously required by U.S. tax law, significant judgments to be made in interpretation of the provision of the U.S. Tax Act, significant estimates in calculations, and the preparation and analysis of information not previously relevant or regularly produced. The U.S. Treasury Department, the IRS, and other standard-setting bodies will continue to interpret or issue guidance on how provisions of the U.S. Tax Act will be applied or otherwise administered. As future guidance is issued, we may make adjustments to amounts that we have previously recorded that may materially impact our financial statements in the period in which the adjustments are made.

Although we believe that our historical tax positions are sound and consistent with applicable laws, regulations and existing precedent, there can be no assurance that our tax positions will not be challenged by relevant tax authorities or that we would be successful in any such challenge. Additionally, we operate in multiple income tax jurisdictions and must determine the appropriate allocation of income to each of these jurisdictions based on current interpretations of complex income tax regulations. Income tax audits associated with the allocation of income and other complex issues may result in significant income tax adjustments that could negatively impact our future operating results.

ITEM 1B. UNRESOLVED STAFF COMMENTS – NONE

ITEM 2. PROPERTIES

Principal Manufacturing, Distribution and Administrative locations

Location	Square Feet	Operations	Ownership
Lansing, Michigan	300,000	Corporate, Food Safety, Animal Safety	Owned
Lexington, Kentucky	210,000	Animal Safety	Owned
Kenansville, North Carolina	33,500	Animal Safety	Leased, expires 3/2022
St Joseph, Michigan	7,000	Animal Safety	Leased, expires 12/2023
Randolph, Wisconsin	137,000	Animal Safety	Owned
Pleasantville, Iowa	59,000	Animal Safety	Leased, expires 12/2022
Lincoln, Nebraska	41,000	Animal Safety	Owned
Memphis, Tennessee	66,100	Animal Safety	Owned
Turlock, California	29,500	Animal Safety	Leased, expires 9/2022
Edmonton, Alberta, Canada	4,800	Animal Safety	Owned
Ayr, Scotland, United Kingdom	74,000	Food Safety	Owned
Heywood, England, United Kingdom	26,800	Food Safety	Owned
Rochdale, England, United Kingdom	60,000	Food Safety	Owned
Liverpool, England, United Kingdom	4,000	Food Safety	Leased, expires 12/2025
Milan, Italy	1,000	Food Safety	Leased, expires 01/2022
Bray, Ireland	39,000	Food Safety	Owned
Indaiatuba, Brazil	6,800	Food Safety	Leased, month to month
Pindamonhangaba, Brazil	76,000	Food Safety	Owned
Naucalpan, Mexico	27,000	Food Safety	Leased, expires 10/2021
Buenos Aires, Argentina	7,500	Food Safety	Leased, expires 8/2023
Ciudad de la Costa, Uruguay	3,200	Food Safety	Leased, expires 09/2022
Santiago, Chile	3,200	Food Safety	Leased, expires 3/2022
Shanghai, China	7,900	Food Safety	Leased, expires 10/2021
Kochi, India	5,500	Food Safety	Leased, month to month
Kochi, India	4,000	Food Safety	Owned
Gatton, Australia	4,600	Animal Safety	Leased, expires 1/2023
Ipswitch, Australia	30,000	Animal Safety	Owned

Our corporate headquarters are located in Lansing, Michigan, with administrative, sales, manufacturing and warehousing in other locations domestically and globally. These properties are in good condition, well-maintained, and generally suitable and adequate to support our business. For those leases expiring within the next 12 months, we believe that we will be able to negotiate agreements to extend such leases on similar terms.

ITEM 3. LEGAL PROCEEDINGS

Neogen is subject to certain legal proceedings in the normal course of business that, in the opinion of management, should not have a material effect on our future results of operations or financial position. On March 6, 2020, the Company received an administrative subpoena from the U.S. Treasury Department's Office of Foreign Assets Control (OFAC) regarding activities or transactions involving parties located in Iran. The Company subsequently conducted an internal investigation under the direction of outside legal counsel and disclosed information concerning certain genomic testing services provided to an unrelated U.S.-based party engaged in veterinary activities involving an Iranian party. The Company continues to cooperate with OFAC's investigation and is currently examining whether certain of these activities may be eligible for OFAC General Licenses authorizing agricultural and veterinary activities. In addition to responding to the administrative subpoena, the Company is implementing additional compliance measures to prevent inadvertent dealings with restricted countries or parties. These measures will further enhance the Company's international trade compliance program, which is designed to assure that the Company does not conduct business directly or indirectly with any countries or parties subject to U.S. economic sanctions and export control laws. Although it is too early to predict what action, if any, that OFAC will take, the Company does not currently have any reason to believe that OFAC's pending investigation will have a meaningful impact on its operations, the results of operations for any future period, or its overall financial condition. In fiscal 2020, the Company took a charge to expense and recorded a reserve of $600,000 to provide for potential fines or penalties on this matter. At this time, the Company believes that it is adequately reserved for this issue.

ITEM 4. MINE SAFETY DISCLOSURES — NOT APPLICABLE

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Neogen Common Stock is traded on the NASDAQ Global Select Market under the symbol NEOG.

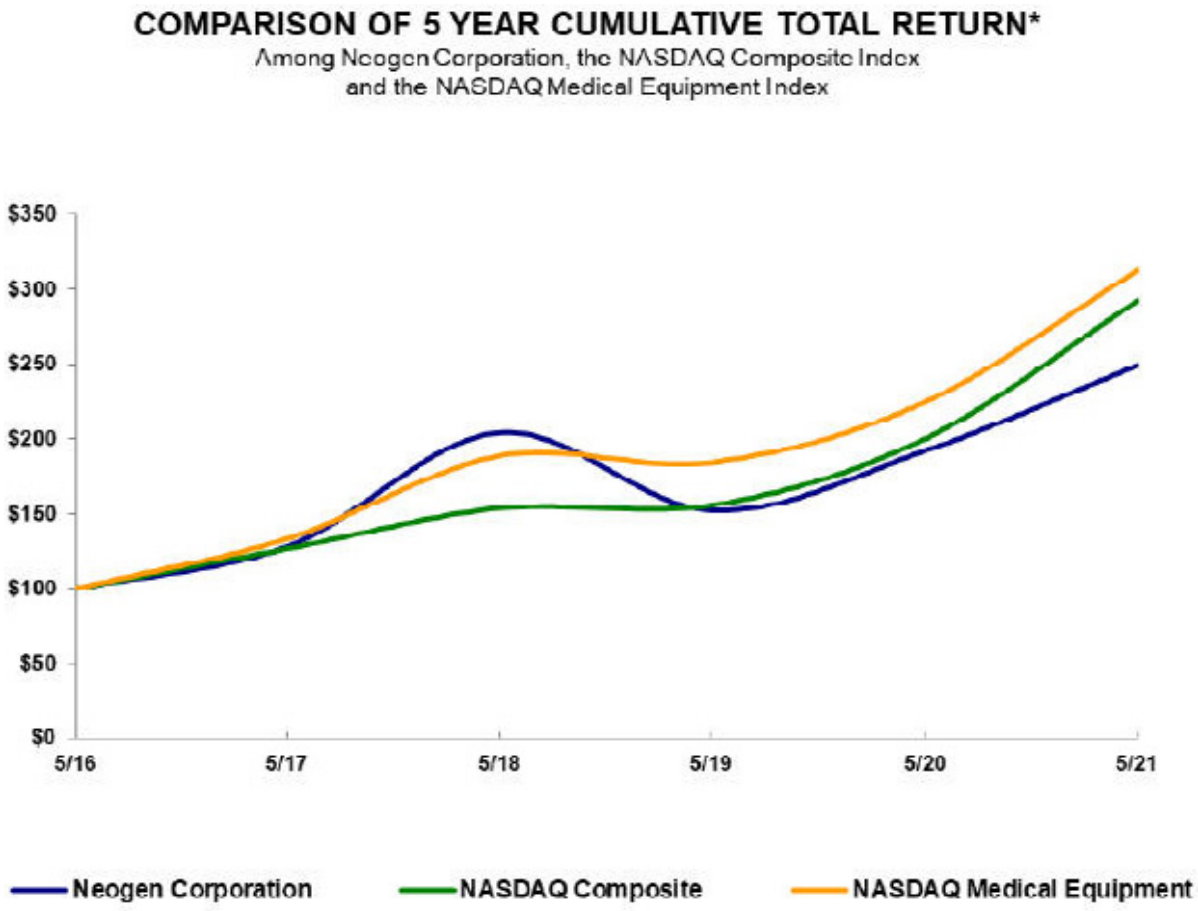
Holders

As of June 30, 2021, there were approximately 221 stockholders of record of Common Stock and management believes there are a total of approximately 10,000 beneficial holders.

Dividends

Neogen has never paid cash dividends on its Common Stock.

The graph below matches Neogen Corporation's cumulative 5-Year total shareholder return on common stock with the cumulative total returns of the NASDAQ Composite index and the NASDAQ Medical Equipment index. The graph tracks the performance of a $100 investment in our common stock and in each index (with the reinvestment of all dividends) from 5/31/2016 to 5/31/2021.



*$100 invested on 5/31/16 in stock or index, including reinvestment of dividends.
Fiscal year ending May 31.

	5/16	5/17	5/18	5/19	5/20	5/21
Neogen Corporation	**100.00**	**128.20**	**204.47**	**152.18**	**192.34**	**249.30**
NASDAQ Composite	**100.00**	**126.75**	**153.80**	**155.70**	**200.33**	**292.39**
NASDAQ Medical Equipment	**100.00**	**133.48**	**188.69**	**184.23**	**224.92**	**312.79**

The stock price performance included in this graph is not necessarily indicative of future stock price performance.

ITEM 6. SELECTED FINANCIAL DATA

The following tables set forth selected consolidated financial data of Neogen for the year ended May 31, 2021, and each of the four preceding fiscal years. The selected consolidated financial data presented below have been derived from our consolidated financial statements. This financial data should be read in conjunction with the consolidated financial statements, related notes and other financial information appearing elsewhere in this Form 10-K.

	Year Ended May 31				
	2021	2020	2019	2018	2017
(in thousands, except per share data)					
Income Statement Data:					
Food Safety Revenues	$234,244	$212,691	$213,474	$194,477	$170,034
Animal Safety Revenues	234,215	205,479	200,712	203,453	188,243
Total Revenues	468,459	418,170	414,186	397,930	358,277
Total Cost of Revenues	253,403	221,891	222,266	211,658	189,353
Gross Margin	215,056	196,279	191,920	186,272	168,924
Sales and Marketing	73,443	69,675	70,230	66,929	59,380
General and Administrative	51,197	44,331	40,791	38,294	34,214
Research and Development	16,247	14,750	12,805	10,855	10,385
Operating Income	74,169	67,523	68,094	70,194	64,945
Other Income	1,099	4,782	4,865	3,271	1,728
Income Before Income Taxes	75,268	72,305	72,959	73,465	66,673
Provision for Income Taxes	14,386	12,830	12,783	10,250	22,700
Net Income	60,882	59,475	60,176	63,215	43,973
Net (Income) Loss Attributable to Non-controlling Interest	—	—	—	(70)	(180)
Net Income Attributable to Neogen	$ 60,882	$ 59,475	$ 60,176	$ 63,145	$ 43,793
Net Income per Share (basic) (1)	$ 0.57	$ 0.57	$ 0.58	$ 0.62	$ 0.43
Net Income per Share (diluted) (1)	$ 0.57	$ 0.56	$ 0.57	$ 0.61	$ 0.43
Weighted Average Shares Outstanding (diluted) (1)	107,120	105,720	104,850	104,298	102,330

	Year Ended May 31				
	2021	2020	2019	2018	2017
Balance Sheet Data:					
Cash and Cash Equivalents and Marketable Securities	$381,087	$343,673	$267,524	$210,810	$143,635
Working Capital (2)	537,852	488,917	411,278	337,101	256,959
Total Assets	920,192	797,182	695,740	618,009	528,409
Long-Term Debt	—	—	—	—	—
Total Equity	840,377	725,177	637,899	560,175	471,757

(1) On December 29, 2017, the Company effected a 4-for-3 stock split whereby shareholders of record on December 18, 2017 received a dividend of one additional share of stock for each three shares held. On June 4, 2021, the Company effected a 2-for-1 stock split whereby shareholders on record as of May 26, 2021 received a dividend of one additional share of common stock for each share held. All share and per share amounts in this Form 10-K have been adjusted to reflect both stock splits as if they had taken place at the beginning of the periods presented.

(2) Defined as current assets less current liabilities.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and related notes appearing elsewhere in this Annual Report on Form 10-K.

In addition, any forward-looking statements represent management's views only as of the day this Form 10-K was first filed with the Securities and Exchange Commission and should not be relied upon as representing management's views as of any subsequent date. While we may elect to update forward-looking statements at some point in the future, we specifically disclaim any obligation to do so, even if our views change.

COVID-19

As we closely monitor the COVID-19 pandemic, our top priority remains protecting the health and safety of our employees, their families, and those in our communities. While essential operations continue in our locations around the world, many of our non-manufacturing employees continue to work remotely and travel remains limited. Safety guidelines and procedures, including social distancing and enhanced cleaning, have been developed for on-site employees and these policies are regularly monitored and updated by our internal Emergency Response Team.

In fiscal 2021, the COVID-19 pandemic continued to impact our business operations and financial results. There has been a positive impact in sales of our biosecurity product lines, as the pandemic has created increased demand for these products, and sales into companion animal markets have benefitted, as remote work and stay at home orders have driven increased pet ownership. A number of our food safety diagnostic product lines have been negatively impacted due to decreased demand in many of our customers' businesses, particularly those serving restaurants, bars and other institutional food service markets; supply chain difficulties including vendor disruptions, border closures and shipping issues; and restricted travel, which hinders our ability to connect with customers. During the current fiscal year, we have incurred less expense for travel, meals, trade shows and some other customer-facing marketing activities; higher spend on shipping, cleaning activities and personal protective equipment has somewhat offset these savings. We expect the COVID-19 pandemic will continue to impact our business operations and financial results through the majority of our 2022 fiscal year.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The discussion and analysis of our financial condition and results of operations are based on the consolidated financial statements that have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires that management make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, management evaluates the estimates, including but not limited to, those related to receivable allowances, inventories and intangible assets. These estimates are based on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Though the impact of the COVID-19 pandemic to our business and operating results presents additional uncertainty, we continue to use the best information available to inform our critical accounting estimates. Actual results may differ from these estimates under different assumptions or conditions.

The following critical accounting policy reflects management's more significant judgments and estimates used in the preparation of the consolidated financial statements.

Income Taxes

We account for income taxes using the asset and liability method. Under this method, deferred income tax assets and liabilities are determined based on differences between the financial reporting and tax bases of assets and liabilities and for tax credit carryforwards and are measured using the enacted tax rates in effect for the years in which the differences are expected to reverse. Deferred income tax expense represents the change in net deferred income tax assets and liabilities during the year. The determination of income subject to income tax in each tax paying jurisdiction requires us to apply transfer pricing guidelines for certain intercompany transactions.

Our tax rate is subject to adjustment over the balance of the year due to, among other things, income tax rate changes by governments; the jurisdictions in which our profits are determined to be earned and taxed; changes in the valuation of our deferred tax assets and liabilities; adjustments to our interpretation of transfer pricing standards; changes in available tax credits or other incentives; changes in stock-based compensation expense; changes in tax laws or the interpretation of such tax laws; and changes in U.S. generally accepted accounting principles.

Although we believe our tax estimates are reasonable and we prepare our tax filings in accordance with all applicable tax laws, the final determination with respect to any audit, and any related litigation, could be materially different from our estimates or from our historical income tax provisions and accruals. The results of an audit or litigation could have a material effect on operating results and/or cash flows in the periods for which that determination is made. In addition, future period earnings may be adversely impacted by litigation costs, settlements, penalties, and/or interest assessments.

Our wholly owned foreign subsidiaries are comprised of Neogen Europe, Quat-Chem Ltd, Megazyme Ltd, Megazyme IP, Neogen Italia S.r.l., Neogen do Brasil, Rogama Industria e Comercio Ltda, Neogen Latinoamérica, Neogen Argentina, Neogen Uruguay, Neogen Chile SpA, Neogen Bio-Scientific Technology Co (Shanghai), Neogen Food and Animal Security (India), Neogen Canada and Neogen Australasia Pty Limited. Based on historical experience, as well as management's future plans, earnings from these subsidiaries are expected to be re-invested indefinitely for future expansion and working capital needs. Furthermore, our domestic operations have historically produced sufficient operating cash flow to mitigate the need to remit foreign earnings. On an annual basis, we evaluate the current business environment and whether any new events or other external changes might require a re-evaluation of the decision to indefinitely re-invest foreign earnings. It is not practicable to determine the income tax liability that would be payable if such earnings were not reinvested indefinitely.

RESULTS OF OPERATIONS

Executive Overview

- Consolidated revenues were $468.5 million in fiscal 2021, an increase of 12% compared to $418.2 million in fiscal 2020. Organic sales overall increased 9% compared to the prior year.
- Food Safety segment sales were $234.2 million in fiscal 2021 compared to $212.7 million in fiscal 2020, an increase of 10%. Organic sales increased 6%, while the purchase of four former distributors and a small manufacturer (Abtek) in fiscal 2020 and the December 2020 acquisition of Megazyme contributed $8.0 million in revenues.
- Animal Safety segment sales were $234.2 million in fiscal 2021, an increase of 14% compared to $205.5 million in fiscal 2020. Organic sales rose 13%, with the acquisitions of Cell BioSciences, in fiscal 2020, and StandGuard, in July 2020, contributing the remainder of the growth.
- International sales were 39.1% of total sales in fiscal 2021 compared to 39.4% of total sales in fiscal 2020.
- Our effective tax rate was 19.1% in fiscal 2021 compared to an effective tax rate of 17.7% in fiscal 2020.
- Net income was $60.9 million, or $0.57 per diluted share, an increase of 2% compared to $59.5 million, or $0.56 per share, in the prior year.
- Cash generated from operating activities in fiscal 2021 was $81.2 million, compared to $85.9 million in fiscal 2020.

Neogen's international revenues were $183.2 million in fiscal 2021, compared to $164.7 million in fiscal 2020. Currency translation had a negligible impact on revenues for the full year, with gains in the U.K., Italy, China, Australia and Canada almost entirely offset by negative impact in Brazil, Mexico and Argentina. In a neutral currency environment, sales would have been $3.4 million higher than reported in the first nine months of fiscal 2021. However, the Brazilian real and Mexican peso strengthened significantly in the fourth quarter, resulting in an overall positive effect of approximately $3.3 million from currency translations; the full year impact from currency translations was minimal.

Sales results for fiscal 2021 compared to the prior year are as follows for each of our international locations:

	Revenue Change USD	Revenue Change Local Currency
UK Operations	10%	4%
Brazil Operations	(8%)	15%
Neogen Latinoamerica	9%	13%
Neogen China	101%	89%
Neogen India	4%	7%
Neogen Australasia	78%	61%
Neogen Canada	14%	9%

The revenue increase in U.S. dollars at Neogen Europe was led by a 22% increase in sales of disinfectant and veterinary products, primarily due to COVID-19 related sales of hand sanitizer and disinfectant in the U.K. in the first quarter and strong cleaner and disinfectant sales throughout the entire year to Asia to mitigate the impact of African Swine Fever. Partially offsetting this growth were lower sales of diagnostic test kits due to COVID-19 shutdowns; additionally, a large portion of sales into European Union countries from January through May were sold through our Neogen Italia subsidiary as Brexit created export issues from the U.K.

Revenues in Brazil decreased 8% in USD in fiscal 2021 but increased 15% in local currency, as the Brazilian real devalued significantly against the U.S. dollar during the year. In local currency, sales of our diagnostic test kits increased 10%, genomics revenues increased 19%, due to new business in the beef market, and insecticides revenues grew 22%, partially the result of a large tender sale. Neogen Latinoamerica grew revenues by 9% in USD, with growth in biosecurity products, veterinary instruments and diagnostic test kits. China's sales approximately doubled, from growth in biosecurity products and genomics services. Neogen Australasia benefitted from the February 2020 acquisition of a food safety distributor; organic sales increased 59% at this location in fiscal 2021, from strength in genomics services for the companion animal and bovine markets and increased market share of food safety diagnostic test kits.

Service revenue, which consists primarily of genomics services sales to animal protein and companion animal markets, was $92.2 million in fiscal 2021, an increase of 12% over prior fiscal year sales of $82.6 million. The growth was led by increases in sample volumes from the global companion animal and commercial beef markets and the Chinese porcine market, as that country has begun recovery from its African swine fever outbreak.

REVENUES

	Year Ended				
(dollars in thousands)	**May 31, 2021**	**Change**	**May 31, 2020**	**Change**	**May 31, 2019**
Food Safety:					
Natural Toxins, Allergens & Drug Residues	$ 76,614	1%	$ 76,207	(3%)	$ 78,373
Bacterial & General Sanitation	44,009	5%	41,780	(0%)	41,966
Culture Media & Other	56,922	19%	47,847	(4%)	49,857
Rodenticides, Insecticides & Disinfectants	36,542	26%	28,890	13%	25,584
Genomics Services	20,157	12%	17,967	2%	17,694
	$ 234,244	10%	$ 212,691	(0%)	$ 213,474
Animal Safety:					
Life Sciences	5,715	(10%)	6,322	(20%)	7,858
Veterinary Instruments & Disposables	48,128	12%	42,941	(4%)	44,582
Animal Care & Other	35,897	26%	28,389	(5%)	29,941
Rodenticides, Insecticides & Disinfectants	77,458	13%	68,815	4%	66,389
Genomics Services	67,017	14%	59,012	14%	51,942
	$ 234,215	14%	$ 205,479	2%	$ 200,712
Total Revenue	$ 468,459	12%	$ 418,170	1%	$ 414,186

Year Ended May 31, 2021 Compared to Year Ended May 31, 2020

Food Safety:

The COVID-19 pandemic, which began in the second half of fiscal 2020, continued to cause difficult operating conditions in many of our key market segments in fiscal 2021. Shelter in place orders across the U.S. and in most of our international markets, the closure or reduced output of businesses due to quarantine and/or local legislation, disruption in the supply chain resulting from reduction in end-market demand and shipping issues, and the inability of some markets to react quickly to these changes, each disrupted our revenues.

Natural Toxins, Allergens & Drug Residues – Sales in this category increased 1% in fiscal 2021, with a 6% increase in sales of natural toxin test kits and a 5% increase in our allergens product line partially offset by a 30% decrease in sales of drug residue test kits. Sales of drug residue test kits have continued to decline as we ended an exclusive distributor agreement in Europe and faced competitive pressure and lower demand due to poor economic conditions.

Bacterial & General Sanitation – Sales in this category increased 5% in fiscal 2021 compared to the prior year. Sales of products to detect spoilage organisms in processed foods increased 19% in fiscal 2021, resulting from sales of our new instrument (Soleris NG), which launched in the first quarter, and increased consumables sales from new instrument placements. Sales of our AccuPoint sanitation monitoring product line were flat as many customers were shut down or operating at reduced capacity for a portion of the year, resulting in use of less consumables. A next generation reader for this product line was launched late in the fourth quarter; there will be significant sales and marketing focus on this product line in fiscal 2022. Sales of test kits to detect pathogens decreased 2%, as lower sales of ANSR equipment were only partially offset by increases from our *Listeria* Right Now test kit, which grew 21% in fiscal 2021.

Culture Media & Other – Sales in this category increased 19% in fiscal 2021 compared to fiscal 2020. Excluding sales from the December 2020 acquisition of Megazyme, sales increased 8%. This category includes sales of acquired inventory of non-Neogen manufactured products from our new businesses in Italy and the South American southern cone countries; these sales are not expected to continue long-term. Sales of Neogen Culture Media increased 1% as new business gained in the U.S. from a COVID-19 vaccine manufacturer offset the loss of some business due to competitor pricing.

Rodenticides, Insecticides & Disinfectants – Revenues of products in this category sold through our Food Safety operations increased 26% in fiscal 2021 compared to fiscal 2020, due primarily to continued strength in cleaners and disinfectant sales in China resulting from increased demand due to the African swine fever outbreak in that country and the COVID-19 pandemic. We also benefitted from strong sales of hand and skin sanitizing products at our U.K.-based Quat-Chem location in the first quarter of this fiscal year.

Genomics Services – Sales of genomics services sold through our Food Safety operations increased 12% in fiscal 2021 compared to the prior year, primarily due to higher sales in the Chinese porcine and bovine markets.

Animal Safety:

Life Sciences – Sales in this category decreased 10% in fiscal 2021 compared to the same period in the prior year, primarily the result of lower forensic drug test kit sales to large commercial labs in the U.S. as the COVID-19 pandemic created less demand for testing; a reduction in sales of products to the U.S. horse racing industry in the U.S. also contributed to the decline, as racing activity was down.

Veterinary Instruments & Disposables – Revenues in this category increased 12% in fiscal 2021 compared to fiscal 2020. Veterinary instruments sales increased 16% for the year, led by increases in detectable needles and syringes as we gained new customers and benefitted from increased demand resulting from higher numbers of production animals in existing markets. Partially offsetting this increase was a 9% decline in protective wear sales, as gloves were on backorder for much of the current year due to COVID related demand.

Animal Care & Other – Sales of these products increased 26% in fiscal 2021 compared to fiscal 2020; this category includes sales of food safety products sold through our Australian operation, the result of a February 2020 acquisition of a distributor. Excluding these sales, revenues in this category increased 21%. Sales of our small animal supplements, vitamin injectables, and joint pain products benefitted from growth in veterinary markets, as the COVID-19 pandemic has led to an increase in pet ownership, particularly dogs and cats. Additionally, sales rose for our equine supplements and antibiotics, due to strong demand in these markets. This category also includes sales of our thyroid treatment for dogs, which became available for sale late in the fourth quarter. Partially offsetting these gains was a 49% decline in sales of dairy supplies due to the June 2020 termination of an agreement in which we distributed these products for a large manufacturer of dairy equipment.

Rodenticides, Insecticides & Disinfectants – Sales in this category increased 13% in fiscal 2021, compared to the prior year. Rodenticide sales increased 42% as rodent pressure in certain areas of the U.S. increased significantly. Insecticide sales rose 15%, due in part to our acquisition of the StandGuard product line for fly control on July 31, 2020; organic sales in this category increased 7%. Cleaners and disinfectants sales decreased 15% resulting from lower sales of water treatment products and the transfer of a product line to our U.K. operation; additionally, opportunistic sales of sanitizing products in the fourth quarter of the prior year, due to extremely high demand early in the COVID-19 pandemic, did not continue at those levels in fiscal 2021.

Genomics Services – Sales in this category increased 14% in fiscal 2021 compared to fiscal 2020. The growth was led by strong increases to the U.S. and Australian companion animal markets, driven by increased pet adoption and higher consumer spending on pets during the COVID-19 pandemic. Gains in the commercial beef and beef association markets in the U.S., Canada and Australia also contributed to the growth, as well as the recent launch of a new high-density chip for white leg shrimp.

Year Ended May 31, 2020 Compared to Year Ended May 31, 2019

Food Safety:

The COVID-19 pandemic in the second half of fiscal 2020 resulted in difficult operating conditions in many of our key market segments. Shelter in place orders across the U.S. and in a number of our international markets, the closure or reduced output of businesses due to quarantine, disruption in the supply chain resulting from reduction in end-market demand, and the inability of some markets to react quickly to these changes, each adversely impacted our revenues.

Natural Toxins, Allergens & Drug Residues – Sales in this category were 3% lower in fiscal 2020 compared to the prior year, driven by a 30% decline in sales of drug residues test kits, due to lower demand from a large distributor in Europe. In January 2020, we ended our exclusive relationship with this distributor and have begun marketing these products directly into the European market. Partially offsetting the decrease in drug residue testing, the natural toxins and allergens product lines each increased 4% for the year. The natural toxin increase was due to continued new business earned in Brazil for aflatoxin and DON test kits, partially offset by lower sales of DON test kits in the U.S. and France, the result of mild outbreaks in the prior year which did not recur in fiscal 2020. The allergen test kit increase was primarily the result of strong gliadin, milk and coconut allergen test kit sales in the U.S. market, although fourth quarter sales declined 7% due to lower business with customers supplying restaurants and other food service organizations, which were adversely impacted by COVID-19.

Bacterial & General Sanitation – Sales in this category were essentially flat in fiscal 2020 compared to the prior year. Sales of test kits to detect pathogens decreased 2%, as lower sales of ANSR equipment were only partially offset by increases from our *Listeria* Right Now test kit, which grew 24% in fiscal 2020. Sales of our AccuPoint sanitation monitoring product line increased 6%, on increases in both readers and samplers. Sales of products to detect spoilage organisms in foods decreased 7% in fiscal 2020 on reduced sales of readers and consumable vials during the year, resulting from lower market demand and customer losses.

Culture Media & Other – Sales in this category decreased 4% in fiscal 2020 compared to fiscal 2019. This category includes forensic drug test kits sold within Brazil, which declined significantly as a large commercial lab customer in that country moved to an alternative new technology which provided higher throughput. Culture media revenues declined 5%, due to lower end market demand from several large customers in the U.S. Higher shipping revenues, which rose 12% for the year, and lower rebates offered to certain customers, both of which are reported in this category, partially offset the lower forensic and culture media revenues.

Rodenticides, Insecticides & Disinfectants – Revenues of products in this category sold through our Food Safety operations increased 13% in fiscal 2020 compared to fiscal 2019. This category was led by increases in sales of cleaners and disinfectants to customers in Europe, the Middle East and China, partially offset by a decrease in sales of rodenticides in Central America due to lower demand from a large distributor, and reduced demand of cleaners and disinfectants in India, due to a large order in 2019 which did not recur in fiscal 2020.

Genomics Services – Sales of genomics services sold through our Food Safety operations increased 2% in fiscal 2020 compared to the prior year, primarily due to higher sales in the European bovine and equine markets. Partially offsetting this increase were lower revenues from our genomics operation in Brazil due to a research project with the Brazilian government from 2019 which did not recur in fiscal 2020.

Animal Safety:

A significant proportion of the Animal Safety products are marketed and sold through our veterinary distributor network; this channel was impacted in both fiscal years 2019 and 2020, as difficult market conditions resulting from increased tariffs and political uncertainties in our agricultural and animal protein markets continued. The COVID-19 pandemic in the second half of fiscal 2020 has exacerbated these market conditions; further, the market uncertainty resulting from COVID-19 has caused our larger distributor partners to implement working capital improvement programs by lowering inventory levels which resulted in lower sales of many products in our animal health portfolio. Partially offsetting this weakness in the fourth quarter were higher sales of several of our cleaning and disinfecting products due to demand caused by the COVID-19 pandemic.

Life Sciences – Sales in this category decreased 20% in fiscal 2020 compared to the same period in the prior year, the result of lower forensic drug test kit sales to a large commercial lab in the U.S. serving the Brazilian market, a reduction in sales of products to the U.S. horse racing industry in the U.S. due to a decline in domestic racing activity, and the consolidation of several state laboratories.

Veterinary Instruments & Disposables – Revenues in this category decreased 4% in fiscal 2020 compared to fiscal 2019. Veterinary instruments sales were down 7% for the year, primarily the result of a 20% decline in needles and 3% decline in syringes, due to lower demand from our largest distributors. Partially offsetting these decreases, protective wear and consumables increased 24% for the year, on the strength of a $956,000 increase in gloves in the fourth quarter of fiscal 2020, the result of demand caused by the COVID-19 pandemic.

Animal Care & Other – Sales of these products decreased 5% in fiscal 2020 compared to fiscal 2019. Antibiotics and injectable vitamin products were down 20% and 15%, respectively, due primarily to inventory destocking at distributors. Sales of our biologics product line, marketed primarily into the equine market, declined 17%, and our equine supplements were also down 20%, due to lower demand from end customers in this market. Sales of wound care products rose 9% to partially offset these losses.

Rodenticides, Insecticides & Disinfectants – Sales in this category increased 4% in fiscal 2020, compared to the prior year. The increase was due primarily to a $2.6 million increase in sales of cleaners and disinfectants for the year, driven in large part by growth in hand sanitizers, disinfectants, and disinfecting wipes in the fourth quarter resulting from the COVID-19 pandemic. Revenues for water disinfection in animal protein production environments rose 8% over fiscal 2019. Rodenticide sales increased 1% over the prior year, as strong growth in the retail market was almost entirely offset by lower sales to agricultural markets in the northwest U.S., due to lower rodent pressure. Insecticide revenues declined 2% for the year.

Genomics Services – Sales in this category increased 14% in fiscal 2020, aided by the acquisition of Livestock Genetics (September 2018) and Delta Genomics (January 2019); organic growth in this category was 12%. Strong growth in the companion animal and commercial beef cattle markets was partially offset by revenue decreases in the U.S. commercial dairy market due to weak economic conditions in that market, resulting from a movement away from dairy milk towards alternative products.

COST OF REVENUES

(in thousands)	2021	Change	2020	Change	2019
Cost of Revenues	$253,403	14%	$221,891	0%	$222,266

Cost of revenues increased 14% in fiscal 2021 compared to fiscal 2020 and was essentially flat in fiscal 2020 compared to fiscal 2019. This compares with revenue increases of 12% in fiscal 2021 and 1% in fiscal 2020. Expressed as a percentage of sales, cost of revenues was 54.1%, 53.1% and 53.7% in fiscal years 2021, 2020 and 2019, respectively. Gross margins were 45.9%, 46.9%, and 46.3% for fiscal years 2021, 2020, and 2019, respectively.

Fiscal 2021 – Our overall gross margin declined 100 basis points in fiscal 2021 as pressure on the worldwide supply chain caused by the COVID-19 pandemic resulted in increased overhead costs; in particular, freight costs on inventory purchases increased 53% in fiscal 2021 compared to the prior year. Additional cost increases resulted from personnel costs, in part from the increased volumes, but also due to labor shortages, contracted services primarily related to our recently launched instruments, and higher health insurance costs domestically, as employees and their families utilized elective medical services postponed from the fourth quarter of fiscal 2020 due to COVID-19. To a lesser extent, the shift in mix within the Food Safety segment towards products with lower gross margins negatively impacted the consolidated gross margin percentage.

Fiscal 2020 – Our overall gross margin improved 60 basis points in fiscal 2020, primarily from improved gross margin in the Animal Safety segment and improved efficiencies, resulting from a focus on cost reductions in certain areas. These efforts resulted in a slight decrease in cost of revenues compared to the prior fiscal year.

Food Safety Gross Margins:

Food Safety gross margins were 49.2%, 51.4% and 51.8% in fiscal years 2021, 2020 and 2019, respectively.

Fiscal 2021 –Food Safety margins decreased 220 basis points in fiscal 2021, primarily due to higher sales of equipment such as the Soleris NG, which was launched in the current year and has lower gross margins than our diagnostic test kits, and cleaners and disinfectants sold through our China location, which reports through the Food Safety segment. We were also negatively impacted by increased freight, labor and other overhead costs throughout the segment.

Fiscal 2020 –Food Safety margins decreased 40 basis points in fiscal 2020, primarily due to lower sales of higher margin forensic test kits in Brazil, and the continued strength of the U.S. dollar against currencies in the countries in which we operate; our international operations pay for their inventory primarily in U.S. dollars. In a neutral currency environment, Food Safety segment sales would have been $5.4 million higher in fiscal 2020.

Animal Safety Gross Margins:

Animal Safety gross margins were 42.6%, 42.3% and 40.6% in fiscal years 2021, 2020 and 2019, respectively.

Fiscal 2021 – Animal Safety gross margins increased by 30 basis points, primarily from strong sales of higher margin rodenticide and companion animal products and cost efficiencies; somewhat offsetting these gains, gross margin in this segment was negatively impacted by higher freight costs as rates to bring product into inventory rose significantly during the year, from both domestic and international sources.

Fiscal 2020 – Animal Safety gross margins increased by 170 basis points, driven by increased sales of higher margin disinfectant products, particularly in the fourth quarter of the year as a result of the COVID-19 pandemic, which caused heavy demand for our sanitizing products. In addition, a mix shift towards genomics services for the companion animal markets, which have higher gross margins within the genomics business, contributed to the improvement.

OPERATING EXPENSES

(dollars in thousands)	2021	Change	2020	Change	2019
Sales and Marketing	$ 73,443	5%	$ 69,675	(1%)	$ 70,230
General and Administrative	51,197	15%	44,331	9%	40,791
Research and Development	16,247	10%	14,750	15%	12,805
Total Operating Expense	$140,887	9%	$128,756	4%	$123,826

Overall operating expenses increased by 9% in fiscal 2021 and 4% in fiscal 2020, each compared to the prior year. These increases compare to revenue increases of 12% and 1%, respectively, for each comparative period.

Sales and Marketing:

Sales and marketing expenses increased by 5% in fiscal 2021 compared to fiscal 2020 and decreased 1% in fiscal 2020 compared to the prior year. As a percentage of sales, sales and marketing expense was 15.7%, 16.7% and 17.0% in fiscal years 2021, 2020 and 2019, respectively.

Fiscal 2021 – The $3.8 million, or 5%, increase in sales and marketing expenses in fiscal 2021 resulted primarily from increases in employee compensation expenses such as salaries, bonuses, and commissions, reflecting the increase in sales for the year, as well as increased headcount as we returned to normal staffing levels. In addition, shipping costs rose in line with revenues, health insurance costs rose as employees and their families resumed receiving medical treatment and procedures which had been deferred in the fourth quarter of the prior fiscal year. Advertising and outside services also increased to support the launch of a number of new products during the year, most notably the Soleris NG and Accupoint NG readers. Partially offsetting these increases was $3 million in decreased spending for travel and meals and entertainment for the year, the result of travel restrictions and reductions in face-to-face sales activities in most of our markets for the majority of the year. Travel and in person customer meetings did begin to pick up in some geographic areas in the second half of fiscal 2021 as COVID-19 restrictions were eased.

Fiscal 2020 – The $550,000 decline in sales and marketing expenses in fiscal 2020 was driven by a $1.3 million, or 7.4%, decline in spending in this category in the fourth quarter of the year, caused by a reduction in business travel, meals and entertainment, trade shows, and related marketing expenses, as the COVID-19 global pandemic resulted in strict travel restrictions and reductions in face to face sales activities in many of our markets during the quarter. Partially offsetting these declines were higher compensation and related fringe benefits, the result of increased headcount, increased shipping expenses, and higher regulatory expense due to product registration efforts in our international markets.

General and Administrative:

General and administrative expenses rose 15% in fiscal 2021 compared to fiscal 2020 and by 9% in fiscal 2020 compared to fiscal 2019. As a percentage of sales, general and administrative expense was 10.9%, 10.6% and 9.8% in fiscal years 2021, 2020 and 2019, respectively.

Fiscal 2021 – In fiscal 2021, we spent $3.1 million on strategic consulting, legal and other professional fees related to acquisition activity for businesses which we were ultimately not successful in acquiring. Excluding these costs, the increase in general and administrative expense in fiscal 2021 was 8%. Other increases in the current year included compensation increases due to increased headcount, including the addition of a number of senior management positions, incremental amortization expenses (non-cash) resulting from recent acquisitions, and higher levels of depreciation (non-cash) and related software and licensing costs from continued investments in information technology infrastructure and applications. Increases in this cost category resulting from the Megazyme acquisition totaled $957,000.

Fiscal 2020 – Higher stock-based compensation costs and a significant uptick in legal fees, driven in part from the number of acquisitions completed during the year, resulted in the overall 9% expense increase. In addition, the Company continued to invest in information technology infrastructure, network capabilities and e-commerce initiatives. This resulted in higher depreciation on IT-related hardware and increased license fees on software investments. These increases were somewhat offset by a reduction in outside consulting. General and administrative expenses at five new company locations, the result of acquisitions in the second half of fiscal 2020, totaled $520,000.

Research and Development:

Research and development expenses increased 10% in fiscal 2021 and 15% in fiscal 2020, each compared to the prior year. As a percentage of revenue, these expenses were 3.5% in fiscal year 2021, 3.5% in fiscal year 2020 and 3.1% in fiscal year 2019; we expect to spend between 3% and 4% of total revenue on research and development annually as we continue to make investments in our future growth.

Fiscal 2021 – The 10% increase in research and development expenses in fiscal 2021 was primarily the result of increased compensation expense, resulting from scheduled annual increases and additional headcount from the Megazyme acquisition, project expense relating to new product innovation, spending with outside partners on the new readers launched in this fiscal year, and testing and approval costs for new product development.

Fiscal 2020 – The 15% increase in research and development expenses in fiscal 2020 was primarily the result of continued spending with development partners for two new readers, launched in fiscal 2021. Increased compensation expense, resulting from investments in people as we heighten the development capabilities of the group, higher depreciation expense from continued investment in analytical equipment, and an increase in contracted services also contributed to the expense growth.

OPERATING INCOME

(dollars in thousands)	2021	Change	2020	Change	2019
Operating Income	$ 74,169	10%	$ 67,523	(1%)	$ 68,094

Our operating income rose 10% in fiscal 2021 compared to fiscal 2020 and decreased by 1% in fiscal 2020 compared to fiscal 2019. Expressed as a percentage of revenues, operating income was 15.8%, 16.1% and 16.4% in fiscal years 2021, 2020 and 2019, respectively.
Gross margins rose by $18.8 million, or 10% in fiscal 2021; this increase was partially offset by an increase of $12.1 million, or 9%, in operating expenses, resulting in a $6.6 million, or 10%, increase in operating income compared to fiscal 2020.

Gross margins rose by $4.4 million in fiscal 2020; the increase was more than offset by an overall increase of $4.9 million, or 4.0%, in operating expenses, resulting in a 1% decrease in operating income compared to fiscal 2019.

OTHER INCOME (EXPENSE)

Other Income (Expense) for the previous three fiscal years consisted of the following:

(dollars in thousands)	2021	2020	2019
Interest income (net of expense)	$1,614	$ 5,992	$ 4,683
Foreign currency transactions	(541)	(1,178)	(1,279)
Royalty income	—	1	150
Licenses and settlements	9	(38)	672
Quat-Chem contingent consideration	—	—	422
Deoxi contingent consideration	—	—	(10)
Magiar contingent consideration	111	—	—
Livestock Genomics contingent consideration	37	—	—
Other	(131)	5	227
Total Other Income	$1,099	$ 4,782	$ 4,865

Interest income declined by $4.4 million in fiscal 2021 compared to fiscal 2020, despite higher cash and marketable securities balances, as yields on fixed income securities declined significantly during the year; the U.S. Federal Reserve intervened in markets to lower rates to stimulate the economy during the COVID-19 pandemic. Interest income rose in fiscal year 2020 compared to fiscal 2019, due to higher cash balances and rising interest rates during most of fiscal 2020. The loss from foreign currency translations in fiscal years 2021, 2020 and 2019 is primarily the result of the changes in the value of foreign currencies relative to the U.S. dollar in countries in which we operate; the dollar strengthened against most of these currencies in all three years.

In fiscal 2021, we received proceeds of $309,000 for a property loss settlement and recorded $300,000 of expense resulting from a legal settlement with a vendor. Additionally, adjustments to contingent consideration accruals resulted in $148,000 of income. In fiscal 2020, we took a charge to expense and recorded a reserve of $600,000 to provide for potential fines or penalties resulting from an administrative subpoena issued by the U.S. Treasury Department's Office of Foreign Asset Control. This was partially offset by a $483,000 gain resulting from a settlement with the Brazilian government related to sales taxes charged over several years, and proceeds received for a property loss settlement. In fiscal 2019, gains were recognized on insurance proceeds received for property loss settlements; additionally, adjustments were made to Quat-Chem and Deoxi contingent consideration amounts based on the level of achievement of revenue targets for the acquired businesses in that fiscal year.

PROVISION FOR INCOME TAXES

(dollars in thousands)	2021	Change	2020	Change	2019
Provision for Income Taxes	$14,386	12%	$12,830	0%	$12,783

Income tax expense for fiscal 2021 was $14,386 million, an effective tax rate of 19.1%, compared to income tax expense of $12.8 million in 2020, an effective tax rate of 17.7%. For fiscal 2019, income tax expense of $12.8 million represented an effective tax rate of 17.5%.

Differences from the U. S. statutory rate of 21% to our effective rate are primarily due to provisions in the U.S. Tax Act and the exercise of stock options. Please refer to Note 6 to the consolidated financial statements for more information.

NET INCOME AND INCOME PER SHARE

(dollars in thousands, except per share data)	2021	Change	2020	Change	2019
Net Income Attributable to Neogen	$60,882	2%	$59,475	(1%)	$60,176
Net Income Per Share-Basic	$ 0.57		$ 0.57		$ 0.58
Net Income Per Share-Diluted	$ 0.57		$ 0.56		$ 0.57

Net income increased 2% in fiscal 2021 compared to fiscal 2020, primarily due to the $6.7 million increase in operating income. The increase in operating income was partially offset by lower other income and higher tax expense for the year.

Net income decreased $701,000 in fiscal 2020 compared to fiscal 2019, primarily due to the $654,000 decrease in pre-tax income.

FUTURE OPERATING RESULTS

Neogen Corporation's future operating results involve a number of risks and uncertainties. Actual events or results may differ materially from those discussed in this report. Factors that could cause or contribute to such differences include, but are not limited to, the factors discussed below as well as those discussed elsewhere in this report. Management's ability to grow the business in the future depends upon our ability to successfully implement various strategies, including:

- developing, manufacturing and marketing new products with new features and capabilities, and having those new products successfully accepted in the marketplace;
- expanding our markets by fostering increased use of our products by customers;
- maintaining or increasing gross and net operating margins in changing cost environments;
- strengthening operations and sales and marketing activities in geographies outside of the U.S.;
- developing and implementing new technology development strategies; and
- identifying and completing acquisitions that enhance existing product categories or create new products or services.

FINANCIAL CONDITION AND LIQUIDITY

On May 31, 2021, we had $75.6 million in cash and cash equivalents, $305.5 million in marketable securities, and net working capital of $537.9 million. For the year ended May 31, 2021, cash generated from operating activities was $81.2 million, compared to $85.9 million generated in fiscal 2020; proceeds from stock option exercises provided an additional $34.6 million of cash. For the same period, additions to property, equipment and other non-current assets were $26.7 million and business acquisitions used cash of $52.0 million. We have a financing agreement with a bank providing for an unsecured revolving line of credit of $15.0 million, which expires on November 30, 2023. There were no advances against this line of credit during fiscal years 2021, 2020 and 2019, and no balance outstanding at May 31, 2021 and 2020.

Net accounts receivable at May 31, 2021 were $91.8 million, compared to $84.7 million at May 31, 2020; the increase is primarily due to the increased sales in the fourth quarter of fiscal 2021 compared to the corresponding period a year ago. Our days sales outstanding, a measurement of the time it takes to collect receivables, improved to 66 days at May 31, 2021 compared to 68 days at May 31, 2020. We have been carefully monitoring our customer receivables as the COVID-19 pandemic has spread across our global markets; to date, although there has been some slowdown in collections, we have not experienced an appreciable increase in bad debt write offs.

Inventory balances were $100.7 million at May 31, 2021, an increase of $5.6 million, or 6%, compared to $95.1 million at May 31, 2020; excluding inventory from the Megazyme acquisition in December 2020, our inventory is flat compared to a year ago. While we took proactive measures over the last 18 months to ensure adequate supply of inventory during the COVID-19 pandemic, we have also continued to focus on improving inventory turns across the business.

Neogen has been consistently profitable and has generated strong cash flow from operations during each of the past three fiscal years. However, our cash on hand and current borrowing capacity may not be sufficient to meet our cash requirements to commercialize products currently under development or our future plans to acquire additional businesses, technology and products that fit within our strategic plan. Accordingly, we may be required, or may choose, to issue equity securities or enter into other financing arrangements for a portion of our future capital needs.

We are subject to certain legal and other proceedings in the normal course of business that have not had, and, in the opinion of management, are not expected to have, a material effect on our results of operations or financial position.

CONTRACTUAL OBLIGATIONS

As of May 31, 2021, we have the following contractual obligations due by period:

(dollars in thousands)	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Long-Term Debt	$ —	$ —	$ —	$ —	$ —
Operating Leases	2,574	1,313	1,219	42	—
Unconditional Purchase Obligations (1)	84,265	83,773	488	4	—
	$86,839	$85,086	$ 1,707	$ 46	$ —

(1) Unconditional purchase obligations are primarily purchase orders for future inventory and capital equipment purchases.

NEW ACCOUNTING PRONOUNCEMENTS

See discussion of any New Accounting Pronouncements in Note 1 to consolidated financial statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISKS

We have interest rate and foreign exchange rate risk exposure but no long-term fixed rate investments or borrowings. Our primary interest rate risk is due to potential fluctuations of interest rates for short-term investments.

Foreign exchange risk exposure arises because we market and sell our products throughout the world. Revenues in certain foreign countries as well as certain expenses related to those revenues are transacted in currencies other than the U.S. dollar. Our operating results are exposed to changes in exchange rates between the U.S. dollar and the British pound sterling, the euro, the Mexican peso, the Brazilian real, the Chinese yuan, the Australian dollar and to a lesser extent, the Indian rupee, the Canadian dollar, the Argentine peso, the Uruguayan peso and the Chilean peso; there is also exposure to a change in exchange rate between the British pound sterling and the euro. When the U.S. dollar weakens against foreign currencies, the dollar value of revenues denominated in foreign currencies increases. When the U.S. dollar strengthens, the opposite situation occurs. Additionally, previously invoiced amounts can be positively or negatively affected by changes in exchange rates in the course of collection. We use derivative financial instruments to help manage the economic impact of fluctuations in certain currency exchange rates. These contracts are adjusted to fair value through earnings.

Neogen has assets, liabilities and operations outside of the U.S., located in Scotland, England, Ireland, Italy, Brazil, Mexico, Argentina, Uruguay, Chile, China, India, Canada and Australia where the functional currency is the British pound sterling, Brazilian real, Mexican peso, Argentine peso, Uruguayan peso, Chilean peso, Chinese yuan, Indian rupee, Canadian dollar and Australian dollar, respectively, and also transacts business throughout Europe in the euro. Our investments in foreign subsidiaries are considered to be long-term. As discussed in ITEM 1A. RISK FACTORS, our financial condition and results of operations could be adversely affected by currency fluctuations.

The following table sets forth the potential loss in future earnings or fair values, resulting from hypothetical changes in relevant market rates or prices:

Risk Category	Hypothetical Change	May 31, 2021	Impact
(in thousands)			
Foreign Currency—Revenue	10% Decrease in exchange rates	$ (18,317)	Earnings
Foreign Currency—Hedges	10% Decrease in exchange rates	(1,998)	Earnings

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The response to this item is submitted in a separate section of this report starting on page F-1.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE—NONE

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

An evaluation was performed under the supervision and with the participation of our management, including the Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15 (e) under the Securities Exchange Act of 1934) as of May 31, 2021. Based on and as of the time of such evaluation, our management, including the Chief Executive Officer and Chief Financial Officer, concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report to ensure that information required to be disclosed in the reports that are filed or submitted under the Securities and Exchange Act of 1934 is appropriately recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure the information required to be disclosed in the reports that are filed or submitted under the Securities Exchange Act of 1934 is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13-a-15(f) and 15d-15(f). Under the supervision and with the participation of our management, including the Chief Executive Officer and Chief Financial Officer, an evaluation was conducted as to the effectiveness of internal control over financial reporting as of May 31, 2021, based on the framework in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on that evaluation, management concluded that internal control over financial reporting was effective as of May 31, 2021. The effectiveness of internal control over financial reporting as of May 31, 2021 has been audited by BDO USA, LLP, an independent registered public accounting firm, as stated in its attestation report, which is included on the following page and is incorporated into this Item 9A by reference.

Changes in Internal Control over Financial Reporting

No changes in our internal control over financial reporting were identified as having occurred during the quarter ended May 31, 2021 that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

ITEM 9B. OTHER INFORMATION—NONE

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS—NOT APPLICABLE

Report of Independent Registered Public Accounting Firm

Shareholders and Board of Directors
Neogen Corporation
Grand Rapids, Michigan

Opinion on Internal Control over Financial Reporting

We have audited Neogen Corporation's (the "Company's") internal control over financial reporting as of May 31, 2021, based on criteria established in ***Internal Control — Integrated Framework (2013)*** issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO criteria"). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of May 31, 2021, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheets of the Company as of May 31, 2021 and 2020, the related consolidated statements of income, comprehensive income, stockholders' equity, and cash flows for each of the three years in the period ended May 31, 2021, and the related notes and our report dated July 30, 2021 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Item 9A, Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit of internal control over financial reporting in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ BDO USA, LLP

Grand Rapids, Michigan

July 30, 2021

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information regarding the Company and certain corporate governance matters appearing under the captions "Proposal 1—Election of Directors," "Information About the Board and Corporate Governance Matters," and "Miscellaneous-Delinquent Section 16(a) Reports" is incorporated by reference to Neogen's 2021 proxy statement to be filed within 120 days of May 31, 2021.

We have adopted a Code of Conduct that applies to our directors, officers and employees. This Code of Conduct is available on our website at https://www.Neogen.com/globalassets/pdfs/corporate-governance-sec-and-investor-information/codeofconduct.pdf

Information About Our Executive Officers

The officers of Neogen serve at the discretion of the Board of Directors. The names and titles of our officers as of May 31, 2021 are set forth below.

Name	Position with the Company	Year Joined the Company
John E. Adent	President & Chief Executive Officer	2017
Joseph A. Corbett	Vice President, Animal Safety Sales	1993
Robert S. Donofrio, Ph.D.	Vice President, Research & Development	2016
Shane M. Fitzwater	Vice President, Animal Safety Operations	2018
Jerome L. Hagedorn	Vice President, North American Operations	2018
Douglas E. Jones	Vice President & Chief Commercial Officer	2020
Jason W. Lilly, Ph.D.	Vice President, International Business	2005
Julie L. Mann	Vice President & Chief Human Resources Officer	2017
Marylinn Munson	Vice President, Agrigenomics	2020
Steven J. Quinlan	Vice President & Chief Financial Officer	2011
Amy M. Rocklin, Ph.D.	Vice President, General Counsel & Corporate Secretary	2021

Information concerning the officers of Neogen follows:

John E. Adent, age 53, joined Neogen as Chief Executive Officer on July 17, 2017 and was then named President on September 22, 2017. Prior to joining Neogen, Mr. Adent served as the Chief Executive Officer of Animal Health International, Inc., formerly known as Lextron, Inc., from 2004 to 2015, also serving as its President during that time. Animal Health International was sold to Patterson Companies, Inc. in 2015, and Mr. Adent served as the Chief Executive Officer of the $3.3 billion Animal Health Division of Patterson Animal Health from that period until his resignation on July 1, 2017. Mr. Adent began his career with management responsibilities for Ralston Purina Company, developing animal feed manufacturing and sales operations in China and the Philippines. When Ralston Purina spun off that business to Agribrands, he continued his management role in the European division in Spain and Hungary, serving as managing director of the Hungarian operations. He left Ralston Purina in 2004.

Joseph A. Corbett, age 52, joined Neogen in December 1993 as a sales representative in the Animal Safety operation based in Lexington, Kentucky. Prior to joining Neogen, he worked for the Marriott Corporation in sales and operations. He has served in various sales, marketing and operational roles in the Neogen Animal Safety segment. He was named Vice President, Animal Safety Sales in October 2014, responsible for all Animal Safety revenues, excluding Genomics and Life Sciences.

Dr. Robert S. Donofrio, age 48, joined Neogen in February 2016 as Director of Microbiology Research and Development, and was promoted to Director of Food Safety Research and Development in December 2016. In April 2018, Dr. Donofrio was named Vice President, Food Safety Research and Development. Prior to joining Neogen, he worked for 15 years at NSF International in various positions of increasing responsibility, including Director of Microbiology and Molecular Biology and Director of Applied Research, where he led efforts in grant research and method development with partners in academia, industry and government. At Neogen, Dr. Donofrio is responsible for our worldwide food safety and animal safety research activities.

Shane M. Fitzwater, age 48, joined Neogen in April 2018 as Vice President, Animal Safety Operations. In his role, Mr. Fitzwater is responsible for manufacturing, quality systems, supply chain, shipping and warehousing for our Animal Safety operations, excluding Genomics. Prior to joining Neogen, he spent 18 years in positions of increasing responsibility at Ecolab, Inc., including five years as Ecolab's Vice President of Supply Chain, Global Specialty Sector. Mr. Fitzwater managed Ecolab's global supply chain for a $750 million business unit with worldwide manufacturing and logistics operations. Before being named a vice president, he spent four years as a director of operations at Ecolab, managing a group of 450 employees and an annual operating budget of $40 million.

Jerome L. Hagedorn, age 55, joined Neogen in April 2018 as Vice President, Food Safety Operations; in 2020, he was named Vice President, North American Operations. In the role, Mr. Hagedorn is responsible for the manufacturing, supply chain, shipping and warehousing, production engineering and quality systems for Neogen's North American operations. Prior to joining Neogen, Mr. Hagedorn spent the past eight years as Vice President of Operations at Siemens Healthcare Diagnostics. At Siemens, he was responsible for multiple plant operations, including diagnostic instrument manufacturing and new product introduction. Prior to joining Siemens, Mr. Hagedorn held a variety of senior level positions over a 20 year career, including Director of Manufacturing at Bayer Healthcare in Indiana, Director of Lean Manufacturing at Invensys in Ohio, and Manager of Automated Manufacturing at Siemens Electronic Components in Mexico.

Douglas E. Jones, age 51, joined Neogen as Chief Commercial Officer on August 17, 2020. Prior to joining Neogen, Mr. Jones served as the President of the Companion Animal Division at Patterson Companies from 2016 to August 2020. Prior to joining Patterson, Mr. Jones served as the Head of Business Operations for the North American Merial Animal Health Division of Sanofi. Mr. Jones began his career as a management consultant with the North Highland Company and PriceWaterhouseCoopers, focusing on commercial transformation and strategy projects in the pharmaceutical, healthcare distribution, and high-tech industries.

Dr. Jason W. Lilly, age 47, joined Neogen in June 2005 as Market Development Manager for Food Safety. In June 2009, he moved to the Corporate Development group. He was named Vice President of Corporate Development in December 2011, responsible for the identification and acquisition of new business opportunities for the Company. In January 2019, Dr. Lilly was named Vice President, International Business, responsible for Neogen's operations outside of the U.S. and Canada. Prior to joining Neogen, he served in various technical sales and marketing roles at Invitrogen Corporation.

Julie L. Mann, age 56, joined Neogen in 2017 as Director of Human Resources and was promoted to Senior Director of Human Resources in June 2019. On June 1, 2020, Ms. Mann was named Vice President & Chief Human Resources Officer, with responsibilities for people-focused programs and initiatives for Neogen's more than 1,800 global employees. Ms. Mann has more than 30 years of experience focused on all aspects of strategic human resources including talent acquisition, compensation and benefits, employee development and employee relations. Prior to joining Neogen, Ms. Mann held the positions of Director, Talent Acquisition at Holland, a logistics company, and Director, People Services Consulting at Herman Miller.

Marylinn Munson, age 57, joined Neogen in May 2020 as Vice President, Agrigenomics. Ms. Munson has held positions with increasing responsibility in sales and operations in the life science, biotechnology and agriculture industries for more than 20 years, with an additional seven years of experience in clinical and research labs. In the five years prior to joining Neogen, Ms. Munson was Board Chair at NorthShore Bio, Sr Partner at TNK Associates, LLC (dba Devil Doc Distributors) and provided consulting services at MPower Network. Her previous positions included VP of Global NGS Informatics at Qiagen, VP of Global Business Development and Sales at Biomatrica, Director of Global Sales Operations and America Sales at Illumina, and Global Market/Business Development Manager at Agilent Technologies.

Steven J. Quinlan, age 58, joined Neogen in January 2011 as Vice President & Chief Financial Officer and was also Corporate Secretary until March 2021. He is responsible for all internal and external financial reporting for Neogen, and manages the accounting, information technology corporate purchasing, treasury and investor relations functions. Mr. Quinlan came to Neogen following 19 years at Detrex Corporation (1992-2010), the last eight years serving as Vice President-Finance, CFO and Treasurer. He was on the audit staff at the public accounting firm Price Waterhouse (now PWC) from 1985-1989.

Amy M. Rocklin, Ph.D., age 49, joined Neogen in March 2021 as Vice President, General Counsel & Corporate Secretary. In this role, she is responsible for all legal and compliance matters and serves as the Corporate Secretary. Prior to joining Neogen, Dr. Rocklin was the Division Vice President, Corporate Law at Corning Incorporated, one of the world's leading innovators in materials science. In her nearly ten years at

Corning, she held multiple leadership positions within Corning's Law Department, including Director of Law, M&A and Emerging Innovations. Before Corning, Dr. Rocklin held positions at Smiths Group plc and was in private practice at the law firm of Foley & Lardner LLP.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item, and pursuant to Regulation 14A of the Exchange Act, is incorporated by reference from the sections entitled "Compensation Discussion and Analysis", "Compensation Committee Report", "Executive Compensation", "Information About the Board and Corporate Governance Matters-Compensation Committee Interlocks and Insider Participation", "CEO Pay Ratio", and "Compensation of Directors" in the Company's definitive Proxy Statement to be filed within 120 days of May 31, 2021.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT, AND RELATED STOCKHOLDER MATTERS

The information required by this Item, and pursuant to Regulation 14A of the Exchange Act, is incorporated by reference from the section entitled "Security Ownership of Certain Beneficial Owners, Directors and Management" in the Company's definitive Proxy Statement to be filed within 120 days of May 31, 2021.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this Item, and pursuant to Regulation 14A of the Exchange Act, is incorporated by reference from the section entitled "Information about the Board and Corporate Governance Matters-Independent Directors" and "-Certain Relationships and Related Party Transactions" in the Company's definitive Proxy Statement to be filed within 120 days of May 31, 2021.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this Item, and pursuant to Regulation 14A of the Exchange Act, is incorporated by reference from the section entitled "Proposal 3 — Ratification of the Appointment of the Company's Independent Registered Public Accounting Firm" in the Company's definitive Proxy Statement to be filed within 120 days of May 31, 2021.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) (1) and (2) and (c). The response to this portion of ITEM 15 is submitted as a separate section of this report starting on page F-1.

(a) (3) and (b). The Exhibits, listed on the accompanying Exhibit Index on page 40, are incorporated herein by reference.

ITEM 16. FORM 10-K SUMMARY — NONE

EXHIBIT INDEX

EXHIBIT NO.	DESCRIPTION
3.1	Restated Articles of Incorporation, as amended on November 23, 2011 (incorporated by reference to Exhibit 3.1 filed with the Registrant's Quarterly Report on Form 10-Q filed December 30, 2011).
3.2	Certificate of Amendment to Articles of Incorporation filed on October 11, 2010 (incorporated by reference to Exhibit 3.2 filed with the Registrant's Annual Report on Form 10-K filed July 30, 2020).
3.3	Certificate of Amendment to Articles of Incorporation filed on November 20, 2018 (incorporated by reference to Exhibit 3 filed with the Registrant's Quarterly Report on Form 10-Q filed December 28, 2018).
3.4	By-Laws, as amended (incorporated by reference to Exhibit 3.2 to the Registrant's Quarterly Report on Form 10-Q filed April 14, 2000).
10.1	Neogen Corporation 2007 Stock Option Plan as amended and restated (incorporated by reference to Exhibit A to the Registrant's 2011 Proxy Statement August 31, 2011 filed September 1, 2011).
10.2	Neogen Corporation 2015 Omnibus Incentive Plan (incorporated by reference to Appendix A to the Registrant's 2015 Proxy Statement dated and filed August 25, 2015).
10.3	Neogen Corporation 2018 Omnibus Incentive Plan (incorporated by reference to Appendix A to the Registrant's 2018 Proxy Statement dated and filed August 28, 2018).
10.4	Amended and Restated Credit Agreement dated as of November 30, 2016 between Registrant and JP Morgan Chase N.A. (incorporated by reference to Exhibit 10.A of the Registrant's Form 8-K file on December 6, 2016).
10.5	First Amendment to Amended and Restated Credit Agreement dated as of November 30, 2018 between Registrant and JPMorgan Chase N.A. (incorporated by reference to Exhibit 10.A to the Registrant's Form 8-K filed on December 6, 2018).
10.6	Second Amendment to Amended and Restated Credit Agreement dated as of November 30, 2020 between Registrant and JP Morgan Chase N.A. (incorporated by reference to Exhibit 10.A of the Registrant's Form 8-K filed on December 17, 2020).
21	Listing of Subsidiaries
23	Consent of Independent Registered Public Accounting Firm BDO USA, LLP
24	Power of Attorney
31.1	Section 302 Certification of Principal Executive Officer
31.2	Section 302 Certification of Principal Financial Officer
32	Certification Pursuant to 18 U.S.C Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	Inline XBRL Instance Document
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

NEOGEN CORPORATION

By: /s/ John E. Adent	By: /s/ Steven J. Quinlan
John E. Adent, President & Chief Executive Officer (Principal Executive Officer)	Steven J. Quinlan, Vice President & Chief Financial Officer (Principal Financial & Accounting Officer)

Dated: July 30, 2021

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ John E. Adent John E. Adent	President & Chief Executive Officer (Principal Executive Officer)	July 30, 2021
/s/ Steven J. Quinlan Steven J. Quinlan	Vice President & Chief Financial Officer (Principal Financial & Accounting Officer)	July 30, 2021
* James C. Borel	Chairman of the Board of Directors	July 30, 2021
* William T. Boehm, Ph.D.	Director	July 30, 2021
* Ronald D. Green, Ph.D.	Director	July 30, 2021
* Ralph A. Rodriguez	Director	July 30, 2021
* James P. Tobin	Director	July 30, 2021
* Darci L. Vetter	Director	July 30, 2021
* Catherine E. Woteki, Ph.D.	Director	July 30, 2021

*By: /s/ John E. Adent
John E. Adent, Attorney-in-fact — July 30, 2021

ANNUAL REPORT ON FORM 10-K

ITEM 15 (a)(1)(a)(2) and (c)

LIST OF FINANCIAL STATEMENTS AND FINANCIAL STATEMENT SCHEDULES

YEAR ENDED MAY 31, 2021

NEOGEN CORPORATION

LANSING, MICHIGAN

FORM 10-K—ITEM 15(a)(1) AND (2) AND 15(c)

LIST OF FINANCIAL STATEMENTS AND FINANCIAL STATEMENT SCHEDULES

The following consolidated financial statements of Neogen Corporation and subsidiaries are included below and incorporated in ITEM 8:

Schedules for which provision is made in the applicable accounting regulation of the United States Securities and Exchange Commission are not required under the related instructions or are inapplicable and, therefore, have been omitted.

Report of Independent Registered Public Accounting Firm

Shareholders and Board of Directors
Neogen Corporation
Lansing, Michigan

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Neogen Corporation (the "Company") as of May 31, 2021 and 2020, the related consolidated statements of income, comprehensive income, stockholders' equity, and cash flows for each of the three years in the period ended May 31, 2021, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at May 31, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended May 31, 2021**,** in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of May 31, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") and our report dated July 30, 2021 expressed an unqualified opinion thereon.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing separate opinions on the critical audit matter or on the accounts or disclosures to which it relates it relates.

Evaluation of the Accounting for Income Taxes

As described in Notes 1 and 6 to the consolidated financial statements, the Company recorded income tax expense related to U.S. and Foreign tax paying jurisdictions totaling $14.39 million for the year ended May 31, 2021. International components of U.S. income taxes have a significant impact on total income tax expense including global intangible low-taxed income and Subpart F income representing $2.69 million of expense and foreign derived intangible income deduction and foreign tax credits which provide income tax benefit of $3.96 million. The Company's accounting for income taxes involves the application of tax regulations in each of the tax paying jurisdictions in which it operates. The determination of income subject to income tax in each tax paying jurisdiction requires management to apply transfer pricing guidelines for certain intercompany transactions. Additionally, the Company is entitled to claim foreign tax credits for taxes paid in international tax paying jurisdictions. Management's assumptions and allocations used in the determination of the foreign tax credits are based on current interpretations of complex income tax regulations and can have a material effect on the calculation of U.S. income taxes.

We identified the assumptions and allocations used to calculate international components of U.S. income taxes to be a critical audit matter. These assumptions and allocations include: (i) technical merit of tax positions including considerations related to transfer pricing guidelines for certain intercompany transactions, and (ii) allocation methodologies that are subjective in nature. Auditing these assumptions and allocations involved subjective auditor judgment due to the complexity and the extent of specialized knowledge needed.

The primary procedures we performed to address this critical audit matter included:

- Assessing the design and testing operating effectiveness of certain controls over the Company's income tax provision process, including controls over the identification and application of tax laws over earnings from multiple tax jurisdictions and the process to assess the technical merits of tax positions taken.
- Evaluating the reasonableness and appropriateness of the data used to develop the assumptions and allocations made by management against relevant evidence obtained in other areas of the audit.
- Utilizing professionals with specialized skills and knowledge in taxation to evaluate the Company's application of the applicable tax laws, the technical merit of tax positions taken, and the reasonableness of the Company's apportionment methodologies used.

/s/ BDO USA, LLP

We have served as the Company's auditor since 2014.

July 30, 2021

Neogen Corporation and Subsidiaries
Consolidated Balance Sheets – Assets
(in thousands)

	May 31	
	2021	**2020**
Assets		
Current Assets		
Cash and cash equivalents	$ 75,602	$ 66,269
Marketable securities	305,485	277,404
Accounts receivable, net of allowance of $1,400 and $1,350 at May 31, 2021 and 2020, respectively	91,823	84,681
Inventories	100,701	95,053
Prepaid expenses and other current assets	17,840	13,999
Total Current Assets	591,451	537,406
Property and Equipment		
Land and improvements	7,783	5,456
Building and improvements	72,754	48,881
Machinery and equipment	108,194	90,351
Furniture and fixtures	6,270	4,324
Construction in progress	3,261	4,968
	198,262	153,980
Less accumulated depreciation	(97,809)	(75,309)
Net Property and Equipment	100,453	78,671
Other Assets		
Right of use assets	2,477	1,952
Goodwill	131,476	110,340
Other non-amortizable intangible assets	15,545	15,217
Amortizable intangible assets, net of accumulated amortization of $53,462 and $44,690 at May 31, 2021 and 2020, respectively	76,771	51,364
Other non-current assets	2,019	2,232
Total Other Assets	228,288	181,105
Total Assets	$920,192	$797,182

See accompanying notes to consolidated financial statements.

Neogen Corporation and Subsidiaries
Consolidated Balance Sheets – Liabilities and Stockholders' Equity
(in thousands, except share and per share)

	May 31	
	2021	**2020**
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts payable	$ 23,900	$ 25,650
Accruals		
Accrued compensation	11,251	7,735
Income taxes	1,848	1,456
Other accruals	16,600	13,648
Total Current Liabilities	53,599	48,489
Deferred Income Taxes	21,917	18,125
Other Non-Current Liabilities	4,299	5,391
Total Liabilities	79,815	72,005
Commitments and Contingencies (note 7)		
Stockholders' Equity		
Preferred stock, $1.00 par value — shares authorized 100,000; none issued and outstanding	—	—
Common stock, $0.16 par value — shares authorized 120,000,000; 107,468,304 and 105,891,682 shares issued and outstanding at May 31, 2021 and 2020, respectively	17,195	16,943
Additional paid-in capital	294,953	249,221
Accumulated other comprehensive loss	(11,375)	(19,709)
Retained earnings	539,604	478,722
Total Neogen Corporation and Subsidiaries Stockholders' Equity	840,377	725,177
Total Liabilities and Stockholders' Equity	$ 920,192	$ 797,182

See accompanying notes to consolidated financial statements.

Neogen Corporation and Subsidiaries
Consolidated Statements of Income
(in thousands, except per share)

	Year Ended May 31		
	2021	2020	2019
Revenues			
Product revenues	$ 376,302	$ 335,539	$ 339,439
Service revenues	92,157	82,631	74,747
Total Revenues	468,459	418,170	414,186
Cost of Revenues			
Cost of product revenues	201,348	173,566	179,660
Cost of service revenues	52,055	48,325	42,606
Total Cost of Revenues	253,403	221,891	222,266
Gross Margin	215,056	196,279	191,920
Operating Expenses			
Sales and marketing	73,443	69,675	70,230
General and administrative	51,197	44,331	40,791
Research and development	16,247	14,750	12,805
Total Operating Expenses	140,887	128,756	123,826
Operating Income	74,169	67,523	68,094
Other Income			
Interest income, net	1,614	5,992	4,683
Royalty income	—	—	150
Other, net	(515)	(1,210)	32
Total Other Income	1,099	4,782	4,865
Income Before Income Taxes	75,268	72,305	72,959
Provision for Income Taxes	14,386	12,830	12,783
Net Income	$ 60,882	$ 59,475	$ 60,176
Net Income per Share			
Basic	$ 0.57	$ 0.57	$ 0.58
Diluted	$ 0.57	$ 0.56	$ 0.57
Weighted Average Shares Outstanding			
Basic	106,499	105,100	103,776
Diluted	107,120	105,720	104,850

See accompanying notes to consolidated financial statements.

Neogen Corporation and Subsidiaries

Consolidated Statements of Comprehensive Income

(in thousands)

	Year Ended May 31		
	2021	2020	2019
Net Income	$ 60,882	$ 59,475	$ 60,176
Other comprehensive income (loss), net of tax: foreign currency translations	8,602	(8,495)	(1,894)
Other comprehensive income (loss), net of tax: unrealized gain on marketable securities	(268)	426	—
Comprehensive income	$ 69,216	$ 51,406	$ 58,282

See accompanying notes to consolidated financial statements.

Neogen Corporation and Subsidiaries
Consolidated Statements of Stockholders' Equity
(in thousands, except shares)

	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Non-Controlling Interest	Total Equity
Balance, June 1, 2018	103,471,464	$ 16,555	$ 194,295	$ (9,746)	$ 359,071	$ —	$ 560,175
Exercise of options and share-based compensation expense	1,025,054	164	21,253	—	—	—	21,417
Issuance of shares under employee stock purchase plan	36,660	6	1,154	—	—	—	1,160
Shares repurchased	(100,000)	(16)	(3,119)	—	—	—	(3,135)
Net income for 2019	—	—	—	—	60,176	—	60,176
Other comprehensive loss	—	—	—	(1,894)	—	—	(1,894)
Balance, May 31, 2019	104,433,178	$ 16,709	$ 213,583	$ (11,640)	$ 419,247	$ —	$ 637,899
Exercise of options and share-based compensation expense	1,415,348	227	34,452	—	—	—	34,679
Issuance of shares under employee stock purchase plan	43,156	7	1,186	—	—	—	1,193
Net income for 2020	—	—	—	—	59,475	—	59,475
Other comprehensive loss	—	—	—	(8,069)	—	—	(8,069)
Balance, May 31, 2020	105,891,682	$ 16,943	$ 249,221	$ (19,709)	$ 478,722	$ —	$ 725,177
Exercise of options and share-based compensation expense	1,410,948	226	39,454	—	—	—	39,680
Issuance of shares under employee stock purchase plan	38,406	6	1,382	—	—	—	1,388
Issuance of shares for Megazyme acquisition	127,268	20	4,896	—	—	—	4,916
Net income for 2021	—	—	—	—	60,882	—	60,882
Other comprehensive gain	—	—	—	8,334	—	—	8,334
Balance, May 31, 2021	107,468,304	$ 17,195	$ 294,953	$ (11,375)	$ 539,604	$ —	$ 840,377

See accompanying notes to consolidated financial statements.

Neogen Corporation and Subsidiaries
Consolidated Statements of Cash Flows
(in thousands)

	Year Ended May 31		
	2021	2020	2019
Cash Flows From Operating Activities			
Net income	$ 60,882	$ 59,475	$ 60,176
Adjustments to reconcile net income to net cash provided from operating activities:			
Depreciation and amortization	21,041	18,396	17,624
Deferred income taxes	(640)	1,601	1,197
Share-based compensation	6,437	6,468	5,543
Changes in operating assets and liabilities, net of business acquisitions:			
Accounts receivable	(2,595)	(2,881)	(4,025)
Inventories	2,450	(10,011)	(10,437)
Prepaid expenses and other assets	(3,386)	(1,017)	(3,569)
Accounts payable	(3,206)	6,745	(1,461)
Accruals and other changes	106	7,102	(1,206)
Net Cash From Operating Activities	81,089	85,878	63,842
Cash Flows Used for Investing Activities			
Purchase of property, equipment and other non-current intangible assets	(26,712)	(24,052)	(14,661)
Proceeds from the maturities of marketable securities	764,597	406,731	339,225
Purchase of marketable securities	(792,678)	(458,300)	(437,324)
Business acquisitions, net of cash acquired	(50,771)	(13,164)	(6,388)
Net Cash Used for Investing Activities	(105,564)	(88,785)	(119,148)
Cash Flows From Financing Activities			
Exercise of stock options and other	34,631	29,405	17,034
Payment of contingent consideration	(1,087)	—	—
Repurchase of common stock	—	—	(3,135)
Net Cash From Financing Activities	33,544	29,405	13,899
Effects of Foreign Exchange Rate on Cash	264	(1,917)	21
Net Increase (Decrease) in Cash and Cash Equivalents	9,333	24,581	(41,386)
Cash and Cash Equivalents, Beginning of Year	66,269	41,688	83,074
Cash and Cash Equivalents, End of Year	$ 75,602	$ 66,269	$ 41,688
Supplementary Cash Flow Information			
Income taxes paid, net of refunds	$ 14,966	$ 7,364	$ 13,027

See accompanying notes to consolidated financial statements.

Neogen Corporation and Subsidiaries
Notes to Consolidated Financial Statements

1. Summary of Significant Accounting Policies

Nature of Operations

Neogen Corporation develops, manufactures and markets a diverse line of products and services dedicated to food and animal safety.

Basis of Consolidation

The consolidated financial statements include the accounts of Neogen Corporation and its subsidiaries, all of which are wholly-owned as of May 31, 2021.

All intercompany accounts and transactions have been eliminated in consolidation.

Share and per share amounts reflect the June 4, 2021 2-for-1 stock split as if it took place at the beginning of the periods presented.

Functional Currency

Our functional currency is the U.S. dollar. We translate our non-U.S. operations' assets and liabilities denominated in foreign currencies into U.S. dollars at current rates of exchange as of the balance sheet date and income and expense items at the average exchange rate for the reporting period. Translation adjustments resulting from exchange rate fluctuations are recorded in other comprehensive income (loss). Gains or losses from foreign currency transactions are included in other income (expense) on our consolidated statement of income.

Recently Adopted Accounting Standards

Financial Instruments—Credit Losses

On June 1, 2020, the Company adopted ASU No. 2016-13—Measurement of Credit Losses on Financial Instruments, which changes how the Company measures credit losses on most financial instruments measured at amortized cost and certain other instruments, such as loans, receivables and held-to-maturity debt securities. Rather than generally recognizing credit losses when it is probable that the loss has been incurred, the revised guidance requires the Company to recognize an allowance for credit losses for the difference between the amortized cost basis of a financial instrument and the amount of amortized cost that the Company expects to collect over the instrument's contractual life. The adoption of this guidance did not have a material impact on our consolidated financial statements due to the Company's short-term contractual life of receivables and minimal expected losses.

Fair Value Measurements

On June 1, 2020, the Company adopted ASU 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement, which modifies the disclosure requirements of fair value measurements. The adoption of this guidance did not have an impact on our consolidated financial statements.

Cloud Computing Implementation Cost

On June 1, 2020, the Company adopted ASU 2018-15, Intangible-Goodwill and Other Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Cost Incurred in a Cloud Computing Arrangement That Is a Service Contract, which clarifies the accounting for implementation costs in cloud computing arrangements. The adoption of this guidance did not have an impact on our consolidated financial statements.

Recent Accounting Pronouncements Not Yet Adopted

Reference Rate Reform

In March 2020, FASB issued Update 2020-04, Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting. This update provides temporary optional expedients to applying the reference rate reform guidance to contracts that reference LIBOR or another reference rate expected to be discontinued. Under this update, contract modifications resulting in a new reference rate may be accounted for as a continuation of the existing contract. This guidance is effective upon issuance of the update and applies to contract modifications made through December 31, 2022. We will adopt this standard when LIBOR is discontinued. We are evaluating the impact the new standard will have on our consolidated financial statements and related disclosures but do not anticipate a material impact.

Income Tax Simplification

In December 2019, the Financial Accounting Standards Board ("FASB") issued Update 2019-12, Income Taxes ("Topic 740") as part of its Simplification Initiative. This guidance provides amendments to simplify the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The amendments also improve consistent application of and simplify GAAP for other areas of Topic 740 by clarifying and amending existing guidance. This guidance is effective for annual and interim reporting periods beginning after December 15, 2020, and early adoption is permitted. We plan to adopt during the first quarter of 2021, and we expect an immaterial impact to our consolidated financial statements.

Comprehensive Income

Comprehensive income represents net income and any revenues, expenses, gains and losses that, under U.S. generally accepted accounting principles, are excluded from net income and recognized directly as a component of stockholders' equity. Accumulated other comprehensive income (loss) consists of foreign currency translation adjustments and unrealized gains and losses on our marketable securities.

Changes in our Accumulated Other Comprehensive Income (Loss) ("AOCI") balances, net of tax, were as follows:

(in thousands)	Foreign Currency Translation Adjustments	Unrealized Gain on Marketable Securities	Total AOCI
Balance, May 31, 2019	$ (11,640)	$ —	$ (11,640)
Other comprehensive income (loss)	(8,495)	426	(8,069)
Balance, May 31, 2020	$ (20,135)	$ 426	$ (19,709)
Other comprehensive income (loss)	8,602	(268)	8,334
Balance, May 31, 2021	$ (11,533)	$ 158	$ (11,375)

Fair Value of Financial Instruments

The carrying amounts of the Company's financial instruments other than cash equivalents and marketable securities, which include accounts receivable and accounts payable, approximate fair value based on either their short maturity or current terms for similar instruments.

Fair value measurements are determined based upon the exit price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants exclusive of any transaction costs. The Company utilizes a fair value hierarchy based upon the observability of inputs used in valuation techniques as follows:

Level 1: Observable inputs such as quoted prices in active markets;
Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and
Level 3: Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

Cash and Cash Equivalents

Cash and cash equivalents consist of bank demand accounts, savings deposits, certificates of deposit and commercial paper with original maturities of 90 days or less. Cash and cash equivalents are maintained at financial institutions and, at times, balances may exceed federally insured limits. The Company has not experienced losses related to these balances and believes it is not exposed to significant credit risk regarding its cash and cash equivalents. Cash and cash equivalents were $75,602,000 and $66,269,000 at May 31, 2021 and 2020, respectively. The carrying value of these assets approximates fair value due to the short maturity of these instruments and is classified as Level 1 in the fair value hierarchy. Cash held by foreign subsidiaries was $15,246,000 and $13,060,000 at May 31, 2021 and 2020, respectively.

Marketable Securities

The Company has marketable securities held by banks or broker-dealers at May 31, 2021, consisting of short-term domestic certificates of deposit of $5,785,000 and commercial paper and corporate bonds rated at least A-1/P-1 (short-term) and A/A2 (long-term) with original maturities between 91 days and two years of $299,700,000. Total outstanding marketable securities at May 31, 2021 were $305,485,000; there were $277,404,000 in marketable securities outstanding at May 31, 2020. Changes in market value are monitored and recorded on a monthly basis; in the event of a downgrade in credit quality subsequent to purchase, the marketable security investment is evaluated to determine the appropriate action to take to minimize the overall risk to our marketable security portfolio. As these securities are highly rated and short-term in nature, they have very little credit risk; therefore, the Company does not believe a reserve for expected credit losses on marketable securities is material. These securities are classified as available for sale. The primary objective of management's short-term investment activity is to preserve capital for the purpose of funding operations, capital expenditures and business acquisitions; short-term investments are not entered into for trading or speculative purposes. These securities are recorded at fair value based on recent trades or pricing models and therefore meet the Level 2 criteria. Interest income on these investments is recorded within other income on our consolidated statements of income. Adjustments in the fair value of these assets are recorded in other comprehensive income.

Marketable Securities as of May 31, 2021 and 2020 are listed below by classification and remaining maturities.

		Year ended May 31	
(in thousands)	**Maturity**	**2021**	**2020**
US Treasuries	0 - 90 days	$ —	$ —
	91 -180 days	—	—
	181 days - 1 year	—	2,532
	1 - 2 years	—	—
Commercial Paper & Corporate Bonds	0 - 90 days	106,631	133,130
	91 - 180 days	78,727	73,824
	181 days - 1 year	87,590	43,231
	1 - 2 years	26,752	7,839
Certificates of Deposit	0 - 90 days	3,262	1,003
	91 - 180 days	1,260	5,184
	181 days - 1 year	1,263	6,069
	1 - 2 years	—	4,592
Total Marketable Securities		$305,485	$277,404

The components of marketable securities as of May 31, 2021 are as follows:

(in thousands)	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
US Treasuries	$ —	$ —	$ —	$ —
Commercial Paper & Corporate Bonds	299,524	209	(33)	299,700
Certificates of Deposit	5,755	30	—	5,785
Total Marketable Securities	$305,279	$ 239	$ (33)	$305,485

The components of marketable securities as of May 31, 2020 are as follows:

(in thousands)	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
US Treasuries	$ 2,502	$ 30	$ —	$ 2,532
Commercial Paper & Corporate Bonds	257,700	347	(23)	258,024
Certificates of Deposit	16,648	200	—	16,848
Total Marketable Securities	$276,850	$ 577	$ (23)	$277,404

Use of Estimates

The preparation of these consolidated financial statements requires that management make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures of contingent assets and liabilities. On an ongoing basis, management evaluates the estimates, including, but not limited to, variable consideration related to revenue recognition, allowances for doubtful accounts, the market value of, and demand for, inventories, stock-based compensation, provision for income taxes and related balance sheet accounts, accruals, goodwill and other intangible assets. We believe that these estimates have the greatest potential impact on our financial statements, so we consider them to be our critical accounting policies and estimates. These estimates are based on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Though the impact of the COVID-19 pandemic to our business and operating results presents additional uncertainty, we continue to use the best information available to inform our critical accounting estimates. Actual results may differ from these estimates under different assumptions or conditions.

Accounts Receivable and Concentrations of Credit Risk

Financial instruments which potentially subject Neogen to concentrations of credit risk consist principally of accounts receivable. Management attempts to minimize credit risk by reviewing customers' credit histories before extending credit and by monitoring credit exposure on a regular basis. Collateral or other security is generally not required for accounts receivable. We maintain an allowance for customer accounts that reduces receivables to amounts that are expected to be collected. In estimating the allowance for doubtful accounts, management considers relevant information about past events, current conditions and reasonable and supportable forecasts that affect the collectability of financial assets. Once a receivable balance has been determined to be uncollectible, generally after all collection efforts have been exhausted, that amount is charged against the allowance for doubtful accounts. No customer accounted for more than 10% of accounts receivable at May 31, 2021 or 2020, respectively. The activity in the allowance for doubtful accounts was as follows:

	Year ended May 31		
(in thousands)	2021	2020	2019
Beginning Balance	$1,350	$1,700	$1,550
Provision	239	393	263
Recoveries	139	49	38
Write-offs	(328)	(792)	(151)
Ending Balance	$1,400	$1,350	$1,700

Inventories

Inventories are stated at the lower of cost or net realizable value, determined on the first-in, first-out method. The components of inventories were as follows:

	Year ended May 31	
(in thousands)	**2021**	**2020**
Raw Materials	$ 47,588	$45,058
Work-in-process	6,412	6,887
Finished goods	46,701	43,108
	$100,701	$95,053

The Company's inventories are analyzed for slow moving, expired and obsolete items on a quarterly basis and the valuation allowance is adjusted as required within cost of sales expense. The valuation allowance for inventory was $3,100,000 and $2,850,000 at May 31, 2021 and 2020, respectively.

Property and Equipment

Property and equipment is stated at cost. Expenditures for major improvements are capitalized while repairs and maintenance are charged to expense as incurred. Depreciation is provided on the straight-line method over the estimated useful lives of the respective assets, which are generally seven to 39 years for buildings and improvements and three to ten years for furniture, fixtures, machinery and equipment. Depreciation expense was $13,288,000, $11,907,000 and $11,315,000 in fiscal years 2021, 2020 and 2019, respectively.

Goodwill and Other Intangible Assets

Goodwill represents the excess of purchase price over fair value of tangible net assets of acquired businesses after amounts are allocated to other identifiable intangible assets. Other intangible assets include customer relationships, trademarks, licenses, trade names, covenants not-to-compete and patents. Amortizable intangible assets are amortized on either an accelerated or a straight-line basis, generally over 5 to 25 years. Management reviews the carrying amounts of goodwill and other non-amortizable intangible assets annually, or when indications of impairment exist, to determine if such assets may be impaired. In evaluating goodwill for impairment, we have the option to first assess the qualitative factors to determine whether it is more likely than not that the fair value of the reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the goodwill impairment test. In contrast, we can opt to bypass the qualitative assessment for any reporting unit in any period and proceed directly to assessing the fair value of all of our reporting units and compare the fair value of the reporting unit to carrying value to determine if any impairment is necessary. Doing so does not preclude us from performing the qualitative assessment in any subsequent period. In the fourth quarter of fiscal 2021, we elected to bypass the qualitative approach that allows the assessment of qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount and instead proceeded directly to assessing the fair value of all of our reporting units and comparing the fair values of the reporting units to the carrying values to determine if any impairment is necessary.

If the carrying amounts of these assets are deemed to be less than fair value based upon a discounted cash flow analysis and comparison to comparable earnings multiples of peer companies, such assets are reduced to their estimated fair value and a charge is made to operations. No goodwill impairments were identified during the years ended May 31, 2021, 2020 and 2019, respectively. The remaining weighted-average amortization period for intangibles was 10 years and 9 years at May 31, 2021 and May 31, 2020, respectively.

Long-lived Assets

Management reviews the carrying values of its long-lived assets to be held and used, including definite-lived intangible assets, for possible impairment whenever events or changes in business conditions warrant such a review. The carrying value of a long-lived asset is considered impaired when the anticipated separately identifiable undiscounted cash flows over the remaining useful life of the asset are less than the carrying value of the asset. In such an event, fair value is determined using discounted cash flows, and if lower than the carrying value, impairment is recognized through a charge to operations. No impairments of long-lived assets were identified during the years ended May 31, 2021, 2020 and 2019, respectively.

Reclassifications

Certain immaterial amounts in the fiscal 2020 and 2019 consolidated financial statements have been reclassified to conform with the fiscal 2021 presentation.

Equity Compensation Plans

At May 31, 2021, the Company had stock option plans which are described more fully in Note 5 to the consolidated financial statements.

We measure stock-based compensation at the grant date, based on the estimated fair value of the award, and recognize the cost (net of estimated forfeitures) as compensation expense on a straight-line basis over the requisite service period. Our stock-based compensation expense is reflected in general and administrative expense in our consolidated statements of income.

The weighted-average fair value per share of stock options granted during fiscal years 2021, 2020 and 2019, estimated on the date of grant using the Black-Scholes option pricing model, was $7.71, $7.78 and $7.46, respectively. The fair value of stock options granted was estimated using the following weighted-average assumptions:

	Year ended May 31		
	2021	2020	2019
Risk-free interest rate	0.2%	1.9%	2.6%
Expected dividend yield	0.0%	0.0%	0.0%
Expected stock volatility	31.3%	29.4%	27.0%
Expected option life	3.25 years	3.5 years	3.5 years

The risk-free interest rate for periods within the expected life of options granted is based on the United States Treasury yield curve in effect at the time of grant. Expected stock price volatility is based on historical volatility of the Company’s stock. The expected option life, representing the period of time that options granted are expected to be outstanding, is based on historical option exercise and employee termination data. We include recent historical experience in estimating our forfeitures. As employees terminate, grant tranches expire or as forfeitures are known, estimated expense is adjusted to actual. For options granted in fiscal years 2021, 2020 and 2019, the Company recorded charges in general and administrative expense based on the fair value of stock options using the straight-line method over the vesting period, generally five years.

The Company also issues restricted stock units (RSUs), which are described more fully in Note 5 to the consolidated financial statements. The RSUs generally vest over three to five years and have a weighted average value of $34.21 in fiscal 2021, which was the first year this type of award was issued.

Income Taxes

We account for income taxes using the asset and liability method. Under this method, deferred income tax assets and liabilities are determined based on differences between the financial reporting and tax bases of assets and liabilities and for tax credit carryforwards and are measured using the enacted tax rates in effect for the years in which the differences are expected to reverse. Deferred income tax expense represents the change in net deferred income tax assets and liabilities during the year.

Our wholly-owned foreign subsidiaries are comprised of Neogen Europe, Quat-Chem Ltd, Megazyme Ltd, Megazyme IP, Neogen Italia S.r.l., Neogen do Brasil, Rogama Industria e Comercio Ltda, Neogen Latinoamérica, Neogen Argentina, Neogen Uruguay, Neogen Chile SpA, Neogen Bio-Scientific Technology Co (Shanghai), Neogen Food and Animal Security (India), Neogen Canada, and Neogen Australasia Pty Limited. Based on historical experience, as well as management's future plans, earnings from these subsidiaries are expected to be re-invested indefinitely for future expansion and working capital needs. Furthermore, our domestic operations have historically produced sufficient operating cash flow to mitigate the need to remit foreign earnings. On an annual basis, we evaluate the current business environment and whether any new events or other external changes might require a re-evaluation of the decision to indefinitely re-invest foreign earnings. It is not practicable to determine the income tax liability that would be payable if such earnings were not reinvested indefinitely.

Research and Development Costs

Research and development costs, which consist primarily of compensation costs, administrative expenses and new product development, among other items, are expensed as incurred.

Advertising Costs

Advertising costs are expensed within sales and marketing as incurred and totaled $1,687,000, $1,454,000 and $1,471,000 in fiscal years 2021, 2020 and 2019, respectively.

Net Income per Share

Basic net income per share is based on the weighted average number of common shares outstanding during each year. Diluted earnings per share is based on the weighted average number of common shares and dilutive potential common shares outstanding. Our dilutive potential common shares outstanding during the years result entirely from dilutive stock options. The following table presents the net income per share calculations:

	Year ended May 31		
(in thousands, except per share)	**2021**	**2020**	**2019**
Numerator for basic and diluted net income per share — Net Income	$ 60,882	$ 59,475	$ 60,176
Denominator for basic net income per share — Weighted average shares	106,499	105,100	103,776
Effect of dilutive stock options	621	620	1,074
Denominator for diluted net income per share	107,120	105,720	104,850
Net income attributable to Neogen per share			
Basic	$ 0.57	$ 0.57	$ 0.58
Diluted	$ 0.57	$ 0.56	$ 0.57

At May 31, 2021, no potential shares from option exercises were excluded from the computation of diluted net income per share, as the option exercise prices did not exceed the average market price of the common shares. At May 31, 2020, 56,000 potential shares were excluded from the computation. At May 31, 2019, 10,000 potential shares were excluded from the computation.

Leases

On June 1, 2019, we adopted Topic 842 using the prospective approach and did not retrospectively apply to prior periods. Topic 842 requires the Company to recognize in the statement of financial position a liability to make lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term. Upon adoption of Topic 842, we recognized all leases with terms greater than 12 months in duration on our consolidated balance sheets as right-of-use assets and lease liabilities of approximately $2.0 million. Right-of-use assets are recorded in other assets on our consolidated balance sheets. Current and non-current lease liabilities are recorded in other accruals within current liabilities and other non-current liabilities, respectively, on our consolidated balance sheets. The recognition, measurement and presentation of expenses and cash flows arising from a lease by a lessor have not significantly changed from previous U.S. GAAP.

We lease various manufacturing, laboratory, warehousing and distribution facilities, administrative and sales offices, equipment and vehicles under operating leases. We evaluate our contracts to determine if an arrangement is a lease at inception and classify it as a finance or operating lease. Currently, all of our leases are classified as operating leases. Leased assets and corresponding liabilities are recognized based on the present value of the lease payments over the lease term. Our lease terms may include options to extend when it is reasonably certain that we will exercise that option.

We have made certain assumptions and judgments when applying ASC 842, the most significant of which are:

- We elected the package of practical expedients available for transition that allow us to not reassess: whether expired or existing contracts contain leases under the new definition of a lease, lease classification for expired or existing leases, and whether previously capitalized initial direct costs would qualify for capitalization under ASC 842.
- We did not elect to use hindsight when considering judgments and estimates such as assessments of lessee options to extend or terminate a lease or purchase the underlying asset.
- For all asset classes, we elected to not recognize a right-of-use asset and lease liability for short-term leases (i.e. leases with a term of 12 months or less).
- For all asset classes, we elected to not separate non-lease components from lease components to which they relate and have accounted for the combined lease and non-lease components as a single lease component.
- The determination of the discount rate used in a lease is our incremental borrowing rate that is based on our estimate of what we would normally pay to borrow on a collateralized basis over a similar term an amount equal to the lease payments.

Supplemental balance sheet information related to operating leases was as follows:

	Year ended May 31	
(in thousands)	**2021**	**2020**
Rights of use—assets	$ 2,477	$ 1,952
Lease liabilities—current	1,285	1,054
Lease liabilities—non-current	1,207	913

The weighted average remaining lease term and weighted average discount rate were as follows:

	Year ended May 31	
	2021	**2020**
Weighted average remaining lease term	2 years	2.5 years
Weighted average discount rate	2.0%	3.2%

Operating lease expenses are classified as cost of revenues or operating expenses on the consolidated statements of income. The components of lease expense were as follows:

	Year ended May 31	
(in thousands)	**2021**	**2020**
Operating leases	$1,352	$1,207
Short term leases	134	166
Total lease expense	$1,486	$1,373

Cash paid for amounts included in the measurement of lease liabilities for operating leases included in cash flows from operations on the statement of cash flows was approximately $1,397,000, $1,178,000 and $1,633,000 for the years ended May 31, 2021, 2020 and 2019, respectively. There were no non-cash additions to right-of-use assets obtained from new operating lease liabilities for the year ended May 31, 2021.

Maturities of operating lease liabilities as of May 31, 2021 are as follows:

(in thousands)	**Amount**
Years ending May 31, 2022	$1,313
2023	874
2024	345
2025	42
2026 and thereafter	—
Total lease payments	$2,574
Less: imputed interest	(82)
Total lease liabilities	$2,492

Revenue Recognition

We determine the amount of revenue to be recognized through application of the following steps:

- Identification of the contract with a customer;
- Identification of the performance obligations in the contract;
- Determination of the transaction price;
- Allocation of the transaction price to the performance obligations in the contract; and
- Recognition of revenue when or as the Company satisfies the performance obligations.

Essentially all of Neogen's revenue is generated through contracts with its customers. A performance obligation is a promise in a contract to transfer a product or service to a customer. We generally recognized revenue at a point in time when all of our performance obligations under the terms of a contract are satisfied. Revenue is recognized upon transfer of control of promised products or services in an amount that reflects the consideration we expect to receive in exchange for those products or services. The collectability of consideration on the contract is reasonably assured before revenue is recognized. To the extent that customer payment has been received before all recognition criteria are met, these revenues are initially deferred in other accruals on the balance sheet and the revenue is recognized in the period that all recognition criteria have been met.

Certain agreements with customers include discounts or rebates on the sale of products and services applied retrospectively, such as volume rebates achieved by purchasing a specified purchase threshold of goods and services. We account for these discounts as variable consideration and estimate the likelihood of a customer meeting the threshold in order to determine the transaction price using the most predictive approach. We typically use the most-likely-amount method, for incentives that are offered to individual customers, and the expected-value method, for programs that are offered to a broad group of customers. Variable consideration reduces the amount of revenue that is recognized. Rebate obligations related to customer incentive programs are recorded in accrued liabilities; the rebate estimates are adjusted at the end of each applicable measurement period based on information currently available.

The performance obligations in Neogen's contracts are generally satisfied well within one year of contract inception. In such cases, management has elected the practical expedient to not adjust the promised amount of consideration for the effects of a significant financing component. Management has elected to utilize the practical expedient to recognize the incremental costs of obtaining a contract as an expense when incurred because the amortization period for the prepaid costs that would otherwise have been deferred and amortized is one year or less. We account for shipping and handling for products as a fulfillment activity when goods are shipped. Shipping and handling costs that are charged to and reimbursed by the customer are recognized as revenues, while the related expenses incurred by Neogen are recorded in sales and marketing expense; these expenses totaled $15,180,000, $13,514,000 and $13,503,000 in fiscal years 2021, 2020 and 2019, respectively. Revenue is recognized net of any tax collected from customers; the taxes are subsequently remitted to governmental authorities. Our terms and conditions of sale generally do not provide for returns of product or reperformance of service except in the case of quality or warranty issues. These situations are infrequent; due to immateriality of the amount, warranty claims are recorded in the period incurred.

The Company derives revenue from two primary sources — product revenue and service revenue.

Product revenue consists primarily of shipments of:

- Diagnostic test kits, culture media and related products used by food producers and processors to detect harmful natural toxins, foodborne bacteria, allergens and levels of general sanitation;
- Consumable products marketed to veterinarians, retailers, livestock producers and animal health product distributors; and
- Rodenticides, disinfectants and insecticides to assist in the control of rodents, insects and disease in and around agricultural, food production and other facilities.

Revenue for Neogen's products are recognized and invoiced when the product is shipped to the customer.

Service revenue consists primarily of:

- Genomic identification and related interpretive bioinformatic services; and
- Other commercial laboratory services.

Revenues for Neogen's genomics and commercial laboratory services are recognized and invoiced when the applicable laboratory service is performed and the results are conveyed to the customer.

Payment terms for products and services are generally 30 to 60 days.

The following table presents disaggregated revenue by major product and service categories for the years ended May 31, 2021, 2020 and 2019:

(dollars in thousands)	Year Ended May 31, 2021	Change	May 31, 2020	Change	May 31, 2019
Food Safety:					
Natural Toxins, Allergens & Drug Residues	$ 76,614	1%	$ 76,207	(3%)	$ 78,373
Bacterial & General Sanitation	44,009	5%	41,780	(0%)	41,966
Culture Media & Other	56,922	19%	47,847	(4%)	49,857
Rodenticides, Insecticides & Disinfectants	36,542	26%	28,890	13%	25,584
Genomics Services	20,157	12%	17,967	2%	17,694
	$ 234,244	10%	$ 212,691	(0%)	$ 213,474
Animal Safety:					
Life Sciences	5,715	(10%)	6,322	(20%)	7,858
Veterinary Instruments & Disposables	48,128	12%	42,941	(4%)	44,582
Animal Care & Other	35,897	26%	28,389	(5%)	29,941
Rodenticides, Insecticides & Disinfectants	77,458	13%	68,815	4%	66,389
Genomics Services	67,017	14%	59,012	14%	51,942
	$ 234,215	14%	$ 205,479	2%	$ 200,712
Total Revenue	$ 468,459	12%	$ 418,170	1%	$ 414,186

See Note 9 to the consolidated financial statements for disaggregated revenues by geographical location.

2. Goodwill and Other Intangible Assets

Management completed the annual impairment analysis of goodwill and intangible assets with indefinite lives using a quantitative assessment as of the first day of the fourth quarter of fiscal years 2021, 2020 and 2019, respectively, and determined that recorded amounts were not impaired and that no write-down was necessary.

The following table summarizes goodwill by reportable segment:

(in thousands)	Food Safety	Animal Safety	Total
Balance, May 31, 2019	$ 42,553	$ 61,066	$103,619
Goodwill acquired	6,254	2,095	8,349
Goodwill and/or currency adjustments (1)	(1,592)	(36)	(1,628)
Balance, May 31, 2020	$ 47,215	$ 63,125	$110,340
Goodwill acquired	18,775	—	18,775
Goodwill and/or currency adjustments (1)	1,832	529	2,361
Balance, May 31, 2021	$ 67,822	$ 63,654	$131,476

(1) Includes final purchase price allocation adjustments and currency adjustments for goodwill recorded at international locations.

At May 31, 2021, non-amortizable intangible assets included licenses of $569,000, trademarks of $13,752,000 and other intangibles of $1,224,000. At May 31, 2020, non-amortizable intangible assets included licenses of $569,000, trademarks of $13,424,000 and other intangibles of $1,224,000.

Amortizable intangible assets consisted of the following and are included in customer-based intangibles and other non-current assets within the consolidated balance sheets:

(in thousands)	Gross Carrying Amount	Less Accumulated Amortization	Net Carrying Amount
Licenses	$ 16,913	$ 4,580	$12,333
Covenants not to compete	1,006	571	435
Patents	8,363	4,243	4,120
Customer-based intangibles	76,384	35,209	41,175
Other products and service-related intangibles	27,567	8,859	18,708
Balance, May 31, 2021	$130,233	$ 53,462	$76,771
Licenses	$ 10,346	$ 3,330	$ 7,016
Covenants not to compete	706	407	299
Patents	8,509	4,118	4,391
Customer-based intangibles	59,847	29,898	29,949
Other products and service-related intangibles	16,646	6,937	9,709
Balance, May 31, 2020	$ 96,054	$ 44,690	$51,364

Amortization expense for intangibles totaled $7,753,000, $6,489,000 and $6,309,000 in fiscal years 2021, 2020, and 2019, respectively. The estimated amortization expense for each of the five succeeding fiscal years is as follows: $8,331,000 in 2022, $7,639,000 in 2023, $7,335,000 in 2024, $7,007,000 in 2025 and $6,943,000 in 2026. The amortizable intangible assets useful lives are 2 to 20 years for licenses, 2 to 13 years for covenants not to compete, 5 to 25 years for patents, 5 to 20 years for customer-based intangibles and 5 to 20 years for other product and service-related intangibles, which primarily consist of product formulations. All definite-lived intangibles are amortized on a straight-line basis with the exception of definite-lived customer-based intangibles and product and service-related intangibles, which are amortized on either a straight-line or an accelerated basis.

3. Business Combinations

The Consolidated Statements of Income reflect the results of operations for business acquisitions since the respective dates of purchase. All are accounted for using the acquisition method. Goodwill recognized in the acquisitions described below relates primarily to enhancing the Company's strategic platform for the expansion of available product offerings.

Fiscal 2019

On August 1, 2018, the Company acquired all of the stock of Clarus Labs, Inc., a manufacturer of water testing products. Neogen has distributed Clarus' Colitag water test to the food and beverage industries since 2004; this acquisition has given the Company the ability to sell this product to new markets. Consideration for the purchase was $4,204,000 in cash and $1,256,000 of contingent consideration, due semiannually for the first five years, based on an excess net sales formula. The final purchase price allocation, based upon the fair value of these assets and liabilities determined using the income approach, included inventory of $32,000, machinery and equipment of $120,000, accounts payable of $53,000, contingent consideration accrual of $1,256,000, non-current deferred tax liability of $544,000, non-amortizable intangible assets of $878,000, intangible assets of $1,487,000 (with an estimated life of 5-15 years) and the remainder to goodwill (non-deductible for tax purposes). These values are Level 3 fair value measurements. Since February 2019, $450,000 has been paid to the former owners as contingent consideration from the accrual. Manufacturing of these products was moved to the Company's Lansing, Michigan location in October 2018, reporting within the Food Safety segment.

On September 4, 2018, the Company acquired the assets of Livestock Genetic Services, LLC, a Virginia-based company that specializes in genetic evaluations and data management for cattle breeding organizations. Livestock Genetic Services had been a long-time strategic partner of Neogen and the acquisition enhanced the Company's in-house genetic evaluation capabilities. Consideration for the purchase was $1,100,000 in cash, with $700,000 paid at closing and $400,000 payable to the former owner on September 1, 2019, and up to $585,000 of contingent consideration, payable over the next three years. The final purchase price allocation, based upon the fair value of these assets and liabilities determined using the income approach, included office equipment of $15,000, contingent consideration accrual of $385,000, intangible assets of $942,000 (with an estimated life of 5-15 years) and the remainder to goodwill (deductible for tax purposes). These values are Level 3 fair value measurements. In September 2019, the former owner was paid the $400,000 installment of the purchase price owed and was also paid $107,000 in contingent consideration based on the achievement of sales targets in the first year. In November 2020, the former owner was paid $100,000 in contingent consideration based on the achievement of sales targets in the second year; the accrual was adjusted to the expected payment for the final year and, as a result, $37,000 was recorded as a gain in Other Income. Services provided by this operation are now performed at the Company's Lincoln, Nebraska location, reporting within the Animal Safety segment.

On January 1, 2019, the Company acquired the assets of Edmonton, Alberta based Delta Genomics Centre, an animal genomics laboratory in Canada. Delta's laboratory operations were renamed Neogen Canada and the acquisition was intended to accelerate growth of the Company's animal genomics business in Canada. Consideration for the purchase was $1,485,000 in cash. The final purchase price allocation, based upon the fair value of these assets and liabilities determined using the income approach, included inventory of $38,000, machinery and equipment of $371,000, unearned revenue liability of $125,000, intangible assets of $532,000 (with an estimated life of 5 to 10 years) and the remainder to goodwill (deductible for tax purposes). These values are Level 3 fair value measurements. Services provided by this operation continue to be performed in Edmonton, reporting within the Animal Safety segment.

Fiscal 2020

On January 1, 2020, the Company acquired all of the stock of Productos Quimicos Magiar, a distributor of Neogen's Food Safety products for the past 20 years, located in Argentina. This acquisition gives Neogen a direct sales presence in Argentina. Consideration for the purchase was $3,776,000 in net cash, with $3,237,000 paid at closing and $540,000 payable to the former owner on January 1, 2022, and up to $979,000 of contingent consideration, payable in one year, based upon an excess net sales formula. The final purchase price allocation, based upon the fair value of these assets and liabilities determined using the income approach, included accounts receivable of $603,000, inventory of $446,000, machinery and equipment of $36,000, other current assets of $221,000, accounts payable of $383,000, other current liabilities of $312,000, contingent consideration accrual of $640,000, non-current deferred tax liabilities of $441,000, intangible assets of $1,471,000 (with an estimated life of 5-10 years) and the remainder to goodwill (non-deductible for tax purposes). These values are Level 3 fair value measurements. In February 2021, the former owner was paid $530,000 of contingent consideration based on the achievement of sales targets; the remaining $110,000 accrued but not earned was recorded as a gain in Other Income in the third quarter of fiscal 2021. This operation continues to operate from its current location in Buenos Aires, Argentina, reporting within the Food Safety segment. It is managed through Neogen's Latin America operation.

On January 1, 2020, the Company acquired all of the stock of Productos Quimicos Magiar, a distributor of Neogen's Food Safety products for the past 20 years, located in Uruguay. This acquisition gives Neogen a direct sales presence in Uruguay. Consideration for the purchase was $1,488,000 in net cash, with $1,278,000 paid at closing and $210,000 payable to the former owner on January 1, 2022, and up to $241,000 in contingent consideration, payable in one year, based upon an excess net sales formula. The final purchase price allocation, based upon the fair value of these assets and liabilities determined using the income approach, included accounts receivable of $280,000, inventory of $174,000, machinery and equipment of $16,000, other current assets of $68,000, accounts payable of $204,000, other current liabilities of $11,000, contingent consideration accrual of $159,000, non-current deferred tax liabilities of $99,000, intangible assets of $398,000 (with an estimated life of 5-10 years) and the remainder to goodwill (non-deductible for tax purposes). These values are Level 3 fair value measurements. In February 2021, the former owner was paid $158,000 of contingent consideration based on the achievement of sales targets; the remaining $1,000 accrued but not earned was recorded as a gain in Other Income in the third quarter of fiscal 2021. This operation continues to operate from its current location in Montevideo, Uruguay, reporting within the Food Safety segment. It is managed through Neogen's Latin America operation.

On January 9, 2020, the Company acquired all of the stock of Diessechem Srl, a distributor of food and feed diagnostics for the past 27 years, located in Italy. This acquisition gives Neogen a direct sales presence in Italy. Consideration for the purchase was $3,455,000 in net cash. The final purchase price allocation, based upon the fair value of these assets and liabilities determined using the income approach, included accounts receivable of $780,000, inventory of $5,000, other current assets of $160,000, accounts payable of $140,000, other current liabilities of $305,000, non-current deferred tax liabilities of $294,000, intangible assets of $1,225,000 (with an estimated life of 5-10 years) and the remainder to goodwill (non-deductible for tax purposes). These values are Level 3 fair value measurements. This operation continues to operate from its current location in Milan, Italy, reporting within the Food Safety segment. It is managed through Neogen's Scotland operation.

On January 31, 2020, the Company acquired all of the stock of Abtek Biologicals Limited, a manufacturer and supplier of culture media supplements and microbiology technologies. This acquisition enhances the Company's culture media product line offering for the worldwide industrial microbiology markets. Consideration for the purchase was $1,401,000 in net cash, with $1,282,000 paid at closing and $119,000 payable to the former owner on January 31, 2021. The final purchase price allocation, based upon the fair value of these assets and liabilities determined using the income approach, included accounts receivable of $135,000, inventory of $207,000, machinery and equipment of $105,000, prepayments of $6,000, accounts payable of $118,000, other current liabilities of $34,000, non-current deferred tax liabilities of $92,000, intangible assets of $484,000 (with an estimated life of 5-10 years) and the remainder to goodwill (non-deductible for tax purposes). These values are Level 3 fair value measurements. The final $119,000 owed was paid to the former owner in January 2021. This manufacturing operation continues to operate from its current location in Liverpool, England, reporting within the Food Safety segment. It is managed through Neogen's Scotland operation.

On February 28, 2020, the Company acquired the assets of Cell BioSciences, an Australian distributor of food safety and industrial microbiology products. This acquisition gives Neogen a direct sales presence across Australasia for its entire product portfolio. Consideration for the purchase was $3,768,000 in cash, with $3,596,000 paid at closing and $172,000 payable in one year. The final purchase price allocation, based upon the fair value of these assets and liabilities determined using the income approach, included inventory of $420,000, unearned revenue liability of $13,000, intangible assets of $1,338,000 (with an estimated life of 3 to 10 years) and the remainder to goodwill (non-deductible for tax purposes). These values are Level 3 fair value measurements. The final $172,000 owed was paid to the former owner in March 2021. The business operates in Gatton, Australia, reporting within the Australian operations in the Animal Safety segment.

On March 26, 2020, the Company acquired the assets of Chile-based Magiar Chilena, a distributor of food, animal and plant diagnostics, including Neogen products. This acquisition gives Neogen a direct sales presence in Chile. Consideration for the purchase was $400,000 in cash, with $350,000 paid at closing and $50,000 payable to the former owner on March 26, 2021. The final purchase price allocation, based upon the fair value of these assets and liabilities determined using the income approach, included inventory of $164,000, machinery and equipment of $53,000, and intangible assets of $183,000 (with an estimated life of 5-10 years). The business is operated from its current location in Santiago, Chile, reporting within the Food Safety segment. It is managed through Neogen's Latin America operation.

Fiscal 2021

On July 31, 2020, the Company acquired the U.S. (including territories) rights to Elanco's StandGuard Pour-on for horn fly and lice control in beef cattle, and related assets. This product line fits in well with Neogen's existing agricultural insecticide portfolio and organizational capabilities. Consideration for the purchase was $2,351,000 in cash, all paid at closing. The final purchase price allocation, based upon the fair value of these assets determined using the income approach, included inventory of $51,000 and intangible assets of $2,300,000 (with an estimated life of 15 years). This product line is currently being toll manufactured for the Company but is eventually expected to be manufactured at Neogen's operation in Iowa; the sales are reported within the Animal Safety segment.

On December 30, 2020, the Company acquired all of the stock of Megazyme, Ltd, an Ireland-based company, and its wholly-owned subsidiaries, U.S.-based Megazyme, Inc. and Ireland-based Megazyme IP. Megazyme is a manufacturer and supplier of diagnostic assay kits and enzymes to measure dietary fiber, complex carbohydrates and enzymes in food and beverages as well as animal feeds. This acquisition will allow Neogen to expand its commercial relationships across food, feed and beverage companies, and provide additional food quality diagnostic products to commercial labs and food science research institutions. Consideration for the purchase was net cash of $39.8 million paid at closing, $8.6 million of cash placed in escrow payable to the former owner in two installments in two and four years, $4.9 million of stock issued at closing, and up to $2.5 million of contingent consideration, payable in two installments over the next year, based upon an excess net sales formula. The preliminary purchase price allocation, based upon the fair value of these assets and liabilities determined using the income approach, included accounts receivable of $1,376,000, inventory of $5,595,000, net property, plant and equipment of $12,599,000, prepayments of $69,000, accounts payable of $4,000, other current liabilities of $1,815,000, contingent consideration accrual of $2,458,000, non-current liabilities of $319,000, non-current deferred tax liabilities of $3,306,000, intangible assets of $22,945,000 (with an estimated life of 15-20 years) and the remainder to goodwill (non-deductible for tax purposes). These values are Level 3 fair value measurements. In February 2021, the former owner was paid $1,229,000 for the first installment of contingent consideration, based upon the achievement of sales targets. The Irish companies continue to operate from their current locations in Bray, Ireland, reporting within the Food Safety segment and are managed through Neogen's Scotland operation. The U.S. company's business is managed by our Lansing-based Food Safety team.

For each acquisition listed above, the revenues and net income were not considered material and were therefore not disclosed.

4. Long-Term Debt

The Company has a financing agreement with a bank providing for a $15,000,000 unsecured revolving line of credit, which was amended in the second quarter to extend the expiration to November 30, 2023. There were no advances against the line of credit during fiscal years 2021 and 2020; there was no balance outstanding at May 31, 2021. Interest on any borrowings is LIBOR plus 100 basis points (rate under the terms of the agreement was 1.06% at May 31, 2021). See Note 1, Recent Accounting Pronouncements Not Yet Adopted, for information on reference rate reform. Financial covenants include maintaining specified levels of tangible net worth, debt service coverage, and funded debt to EBITDA; the Company believes it was in compliance with these covenants at May 31, 2021.

5. Equity Compensation Plans

Incentive and non-qualified options to purchase shares of common stock have been granted to directors, officers and employees of Neogen under the terms of the Company's stock option plans. These options were granted at an exercise price of not less than the fair market value of the stock on the date of grant. Remaining shares available for grant under stock option plans were 6,355,000, 7,002,000 and 7,994,000 at May 31, 2021, 2020 and 2019, respectively. Options vest ratably over three and five-year periods and the contractual terms are generally five or ten years.

(options in thousands)	Options	Weighted-Average Exercise Price	Weighted-Average Grant Date Fair Value
Outstanding at May 31, 2018 (1,016 exercisable)	4,998	$ 21.32	$ 5.72
Granted	1,054	31.46	7.46
Exercised	(1,026)	15.64	4.46
Forfeited	(256)	23.54	6.21
Outstanding at May 31, 2019 (1,234 exercisable)	4,770	24.69	6.35
Granted	1,124	31.96	7.78
Exercised	(1,438)	20.12	5.53
Forfeited	(132)	28.72	7.10
Outstanding at May 31, 2020 (972 exercisable)	4,324	27.98	6.98
Granted	403	34.23	7.71
Exercised	(1,389)	24.38	6.31
Forfeited	(381)	28.99	7.20
Outstanding at May 31, 2021 (643 exercisable)	2,957	30.38	7.36

The following is a summary of stock options outstanding at May 31, 2021:

	Options Outstanding			Options Exercisable	
(options in thousands) Range of Exercise Price	Number	Average Contractual Life (in years)	Weighted-Average Exercise Price	Number	Weighted-Average Exercise Price
$10.75 - $20.00	54	3.1	$ 15.65	51	$ 15.45
$20.01 - $30.00	376	1.8	22.55	150	23.07
$30.01 - $31.50	1,150	2.1	30.87	299	30.76
$31.51 - $32.00	898	3.4	31.95	101	31.95
$32.01 - $35.28	479	4.1	34.07	42	33.53
	2,957	2.8	30.38	643	28.10

The weighted average exercise price of shares subject to options that were exercisable at May 31, 2020 and 2019 was $24.47 and $20.34, respectively.

Compensation expense related to share-based awards was $6,437,000, $6,468,000 and $5,543,000 in fiscal years 2021, 2020 and 2019, respectively. Remaining compensation cost to be expensed in future periods for non-vested options was $15,131,000 at May 31, 2021, with a weighted average expense recognition period of 3.1 years.

(in thousands)	Year Ended May 31, 2021	May 31, 2020	May 31, 2019
Aggregate intrinsic value of options outstanding	$ 46,667	$ 32,988	$ 22,798
Aggregate intrinsic value of options exercisable	$ 11,617	$ 10,814	$ 10,222
Aggregate intrinsic value of options exerised	$ 22,349	$ 19,597	$ 21,382

The Company granted 118,250 restricted stock units (RSUs) to directors, officers and employees under the terms of the 2018 Omnibus Incentive Plan in October 2020, which vest ratably over three and five year periods. RSUs have a weighted average value of $34.21 per share and will be expensed straight-line over the remaining weighted-average period of 4.24 years. On May 31, 2021 there was $3,064,000 in unamortized compensation cost related to non-vested RSUs.

The Company offers eligible employees the option to purchase common stock at a 5% discount to the lower of the market value of the stock at the beginning or end of each participation period under the terms of the 2011 Employee Stock Purchase Plan; the discount is recorded in general and administrative expense. Total individual purchases in any year are limited to 10% of compensation. Shares purchased by employees through this program were 38,406 in fiscal 2021, 43,156 in fiscal 2020 and 36,660 in fiscal 2019. As of May 31, 2021, common stock totaling 649,228 of the 1,425,000 authorized shares remained reserved for issuance under the plan.

6. Income Taxes

Income before income taxes by source consists of the following amounts:

(in thousands)	Year ended May 31, 2021	2020	2019
U.S.	$55,753	$62,329	$58,479
Foreign	19,515	9,976	14,480
	$75,268	$72,305	$72,959

The provision for income taxes consists of the following:

(in thousands)	Year ended May 31, 2021	2020	2019
Current			
Domestic			
Federal	$ 6,981	$ 6,886	$ 7,173
Change in tax-related uncertainties	(75)	269	13
State	2,147	1,262	1,265
Foreign	4,875	2,475	3,758
Deferred			
Domestic			
Federal	479	1,964	1,031
State	44	195	98
Foreign	(65)	(221)	(555)
Provision for Income Taxes	$14,386	$12,830	$12,783

The reconciliation of income taxes computed at the U.S. federal statutory tax rate to income tax expense is as follows:

(in thousands)	Year ended May 31 2021	2020	2019
Tax at U.S. statutory rate	$15,806	$15,184	$15,321
Permanent differences	292	360	(56)
Global intangible low-taxed income (GILTI)	2,064	438	840
Foreign derived intangible income deduction (FDII)	(1,210)	(1,120)	(1,531)
Foreign rate differential	669	(182)	495
Subpart F income	628	634	842
Tax benefits on stock-based compensation	(2,651)	(1,998)	(2,586)
Changes in tax contingencies—Increase/(Release)	(76)	269	13
Provision for state income taxes, net of federal benefit	1,601	1,412	1,251
Tax Credits	(3,298)	(1,417)	(1,726)
Other	561	(750)	(80)
Tax Expense	$14,386	$12,830	$12,783

Foreign tax credits, primarily offsetting taxes associated with Subpart F and GILTI income, were $2,753,000, $945,000 and $1,296,000 in fiscal years 2021, 2020 and 2019, respectively. The Company's research and development credits were $545,000, $472,000 and $430,000 in fiscal years 2021, 2020 and 2019, respectively.

Deferred income taxes reflect the tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of our deferred income tax liabilities and assets are as follows:

(in thousands)	Year ended May 31 2021	2020
Deferred income tax liabilities		
Indefinite and long-lived assets	$(25,072)	$(20,867)
Prepaid expenses	(721)	(795)
	(25,793)	(21,662)
Deferred income tax assets		
Stock options	1,106	1,479
Inventories and accounts receivable	2,081	1,336
Tax loss carryforwards	662	484
Accrued expenses and other	568	657
Less: valuation allowances	(541)	(419)
	3,876	3,537
Net deferred income tax liabilities	$(21,917)	$(18,125)

The Company has the following net operating loss carryforwards:

(in thousands) **Jurisdiction**	**As of 5/31/2021**	**Expiry**
U.S.	$ 345	2037 to indefinite
Foreign	1,938	2024 to 2039
	$ 2,283	

We are subject to income taxes in the U.S. (federal and state) and in numerous foreign jurisdictions. Significant judgment is required in evaluating our tax positions and determining our provision for income taxes. During the ordinary course of business, there are transactions and calculations for which the ultimate tax determination is uncertain. We establish reserves for tax-related uncertainties based on estimates of whether, and the extent to which, additional taxes will be due. These reserves are established when we believe that certain positions might be challenged despite our belief that our tax return positions are fully supportable. We adjust these reserves in light of changing facts and circumstances, such as the outcome of tax audits. The provision for income taxes includes the impact of reserve provisions and changes to reserves that are considered appropriate.

The reconciliation of our tax-related uncertainties is as follows:

	Year ended May 31		
(in thousands)	**2021**	**2020**	**2019**
Beginning balance	$ 880	$611	$ 598
Increase/(decrease) related to prior periods	(272)	56	(106)
Increase related to current period	197	213	119
Ending balance	$ 805	$880	$ 611

The Company is no longer subject to examination by the Internal Revenue Service for fiscal year 2017 and preceding years.

7. Commitments and Contingencies

The Company is involved in environmental remediation and monitoring activities at its Randolph, Wisconsin manufacturing facility and accrues for related costs when such costs are determined to be probable and estimable. The Company currently utilizes a pump and treat remediation strategy, which includes semi-annual monitoring and reporting, consulting, and maintenance of monitoring wells. We expense these annual costs of remediation, which have ranged from $38,000 to $131,000 per year over the past five years. The Company's estimated remaining liability for these costs was $916,000 at both May 31, 2021 and 2020, measured on an undiscounted basis over an estimated period of 15 years. In fiscal 2019, the Company performed an updated Corrective Measures Study on the site, per a request from the Wisconsin Department of Natural Resources (WDNR), and is currently in discussion with the WDNR regarding potential alternative remediation strategies going forward. The Company believes that the current pump and treat strategy is appropriate for the site. However, the Company has agreed to a pilot study in which chemical reagents are injected into the ground in an attempt to reduce on-site contamination, and is currently working with its consultant to design the system. At this time, the outcome of the pilot study is unknown, but a change in the current remediation strategy, depending on the alternative selected, could result in an increase in future costs and ultimately, an increase in the currently recorded liability, with an offsetting charge to operations in the period recorded. The Company has recorded $300,000 as a current liability, and the remaining $616,000 is recorded in other non-current liabilities in the consolidated balance sheet.

On March 6, 2020, the Company received an administrative subpoena from the U.S. Treasury Department's Office of Foreign Assets Control (OFAC) regarding activities or transactions involving parties located in Iran. The Company subsequently conducted an internal investigation under the direction of outside legal counsel and disclosed information concerning certain genomic testing services provided to an unrelated U.S.-based party engaged in veterinary activities involving an Iranian party. The Company continues to cooperate with OFAC's investigation and is currently examining whether certain of these activities may be eligible for OFAC General Licenses authorizing agricultural and veterinary activities.

In addition to responding to the administrative subpoena, the Company is implementing additional compliance measures to prevent inadvertent dealings with restricted countries or parties. These measures will further enhance the Company's international trade compliance program, which is designed to assure that the Company does not conduct business directly or indirectly with any countries or parties subject to U.S. economic sanctions and export control laws. Although it is too early to predict what action, if any, that OFAC will take, the Company does not currently have any reason to believe that OFAC's pending investigation will have a material impact on its operations, the results of operations for any future period, or its overall financial condition. In fiscal 2020, the Company took a charge to expense and recorded a reserve of $600,000 to provide for potential fines or penalties on this matter. At this time, the Company believes that it is adequately reserved for this issue.

The Company has agreements with unrelated third parties that provide for the payment of royalties on the sale of certain products. Royalty expense, recorded in sales and marketing, under the terms of these agreements was $2,129,000, $2,524,000 and $2,795,000 for fiscal years 2021, 2020 and 2019, respectively. Some of these agreements provide for guaranteed minimum royalty payments to be paid each fiscal year by the Company for certain technologies. Future minimum royalty payments are as follows: 2022—$115,000, 2023—$110,000, 2024—$110,000, 2025—$110,000 and 2026—$85,000.

The Company is subject to certain legal and other proceedings in the normal course of business that, in the opinion of management, are not expected to have a material effect on its future results of operations or financial position.

8. Defined Contribution Benefit Plan

The Company maintains a defined contribution 401(k) benefit plan covering substantially all domestic employees. Employees are permitted to defer compensation up to IRS limits, with Neogen matching 100% of the first 3% of deferred compensation and 50% of the next 2% of deferred compensation. In the first quarter of fiscal 2021, the Company suspended the 401(k) match, while we assessed the potential financial impact of COVID-19 on the Company. The match was restored in September 2020. Neogen's expense under this plan was $1,204,000, $1,535,000, and $1,361,000 in fiscal years 2021, 2020 and 2019, respectively.

9. Segment Information

The Company has two reportable segments: Food Safety and Animal Safety. The Food Safety segment is primarily engaged in the development, production and marketing of diagnostic test kits and related products used by food producers and processors to detect harmful natural toxins, foodborne bacteria, allergens and levels of general sanitation. The Animal Safety segment is primarily engaged in the development, production and marketing of products dedicated to animal safety, including a complete line of consumable products marketed to veterinarians and animal health product distributors; this segment also provides genomic identification and related interpretive bioinformatic services. Additionally, the Animal Safety segment produces and markets rodenticides, disinfectants, and insecticides to assist in the control of rodents, insects and disease in and around agricultural, food production and other facilities.

Neogen's international operations in the United Kingdom, Mexico, Brazil, China and India originally focused on the sales and marketing of our food safety products, and each of these units reports through the Food Safety segment. In recent years, these operations have expanded to offer the Company's complete line of products and services, including those usually associated with the Animal Safety segment such as cleaners, disinfectants, rodenticides, insecticides, veterinary instruments and genomics services. These additional products and services are managed and directed by existing management and are reported through the Food Safety segment.

Neogen's operation in Australia originally focused on providing genomics services and sales of animal safety products and reports through the Animal Safety segment. With the acquisition of Cell BioSciences in February 2020, this operation has expanded to offer our complete line of products and services, including those usually associated with the Food Safety segment. These additional products are managed and directed by existing management at Neogen Australasia and report through the Animal Safety segment.

The accounting policies of each of the segments are the same as those described in Note 1.

Segment information is as follows:

(in thousands)	Food Safety	Animal Safety	Corporate and Eliminations (1)	Total
Fiscal 2021				
Product revenues to external customers	$ 209,104	$ 167,198	$ —	$376,302
Service revenues to external customers	25,140	67,017	—	92,157
Total revenues to external customers	234,244	234,215	—	468,459
Operating income (loss)	33,725	48,685	(8,241)	74,169
Depreciation and amortization	11,575	9,466	—	21,041
Total Assets	295,065	244,039	381,088	920,192
Expenditures for long-lived assets	13,730	12,982	—	26,712
Fiscal 2020				
Product revenues to external customers	$ 189,893	$ 145,646	$ —	$335,539
Service revenues to external customers	22,798	59,833	—	82,631
Total revenues to external customers	212,691	205,479	—	418,170
Operating income (loss)	33,526	39,051	(5,054)	67,523
Depreciation and amortization	10,173	8,223	—	18,396
Total Assets	222,331	231,178	343,673	797,182
Expenditures for long-lived assets	15,867	8,185	—	24,052
Fiscal 2019				
Product revenues to external customers	$ 190,675	$ 148,764	$ —	$339,439
Service revenues to external customers	22,799	51,948	—	74,747
Total revenues to external customers	213,474	200,712	—	414,186
Operating income (loss)	39,020	33,875	(4,801)	68,094
Depreciation and amortization	9,525	8,099	—	17,624
Total Assets	206,267	221,950	267,523	695,740
Expenditures for long-lived assets	8,916	5,745	—	14,661

(1) Includes corporate assets, including cash and cash equivalents, marketable securities, current and deferred tax accounts, and overhead expenses not allocated to specific business segments. Also includes the elimination of intersegment transactions and non-controlling interests.

The following table presents the Company's revenue disaggregated by geographical location:

	Year ended May 31	
(in thousands)	**2021**	**2020**
Domestic	$285,262	$253,458
International	183,197	164,712
Total revenue	$468,459	$418,170

10. Stock Repurchases

In October 2018, the Company's Board of Directors passed a resolution terminating the Company's prior stock buyback program, which had been approved in December 2008, and authorized a new program to purchase, subject to market conditions, up to 6,000,000 shares of the Company's common stock. In December 2018, the Company purchased 100,000 shares under the new program in open market transactions for a total price, including commissions, of $3,134,727. Shares acquired under the program were retired. A total of 5,900,000 shares of common stock remained available for repurchase under this program as of May 31, 2021.

11. Summary of Quarterly Data (Unaudited)

(in thousands, except per share)	Quarter Ended August 2020	November 2020	February 2021	May 2021
Total Revenue	$109,325	$115,000	$116,709	$127,425
Gross Margin	50,302	53,214	53,849	57,691
Net income	15,860	15,885	13,377	15,760
Basic net income per share	$ 0.15	$ 0.15	$ 0.13	$ 0.15
Diluted net income per share	$ 0.15	$ 0.15	$ 0.12	$ 0.15

(in thousands, except per share)	Quarter Ended August 2019	November 2019	February 2020	May 2020
Total Revenue	$101,424	$107,803	$ 99,869	$109,074
Gross Margin	48,194	51,026	45,330	51,729
Net income	14,652	16,276	12,200	16,347
Basic net income per share	$ 0.14	$ 0.15	$ 0.12	$ 0.15
Diluted net income per share	$ 0.14	$ 0.15	$ 0.11	$ 0.15

Quarterly net income per share is based on weighted-average shares outstanding and potentially dilutive stock options for the specific period and as a result, will not necessarily aggregate to total net income per share as computed for the year as disclosed in the consolidated statements of income.

EXHIBIT 21
SUBSIDIARIES OF THE REGISTRANT
NEOGEN CORPORATION AND SUBSIDIARIES
May 31, 2021

	WHERE INCORPORATED	PERCENTAGE OWNED BY NEOGEN CORPORATION
Acumedia Manufacturers, Inc.	Michigan, U.S.	100%
Chem-Tech, Ltd.	Michigan, U.S.	100%
GeneSeek, Inc.	Nebraska, U.S.	100%
Hacco, Inc.	Michigan, U.S.	100%
Megazyme, Inc.	Delaware, U.S.	100%
Megazyme, IP	Ireland	100%
Megazyme, Ltd.	Ireland	100%
Neogen Argentina S.A.	Argentina	100%
Neogen Australasia Pty Limited	Australia	100%
Neogen Canada	Canada	100%
Neogen Chile SpA	Chile	100%
Neogen do Brasil Productos Para Labratories LTDA.	Brazil	100%
Neogen Europe Limited	Scotland, United Kingdom	100%
Neogen Guatemala S.A.	Guatemala	100%
Neogen Ireland	Ireland	100%
Neogen Italia S.r.l.	Italy	100%
Neogen Latinoamerica S.A.P.I. DE C.V.	Mexico	100%
Neogen Bio-Scientific Technology (Shanghai) Co., Ltd.	China	100%
Neogen Food and Animal Security (India) PVT, LTD	India	100%
Neogen Properties, LLC II	Michigan, U.S.	100%
Neogen Properties, LLC III	Michigan, U.S.	100%
Neogen Properties, LLC V	Michigan, U.S.	100%
Neogen Properties, LLC VI	Michigan, U.S.	100%
Neogen Properties, LLC VII	Nebraska, U.S.	100%
Neogen Uruguay S.A.	Uruguay	100%
Preserve International	Nevada, U.S.	100%
Quat-Chem, Ltd.	England, United Kingdom	100%
Rogama Industria Comercio Ltda.	Brazil	100%

All subsidiaries listed above are included in the consolidated financial statements of Neogen Corporation.

EXHIBIT 23
Consent of Independent Registered Public Accounting Firm

Neogen Corporation
Lansing, Michigan

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (No. 333-184176) of Neogen Corporation of our reports dated July 30, 2021, relating to the consolidated financial statements, and the effectiveness of Neogen Corporation's internal control over financial reporting, which appear in this Form 10-K.

/s/ BDO USA, LLP

Grand Rapids, Michigan

July 30, 2021

EXHIBIT 24
POWER OF ATTORNEY APPOINTING
JOHN E. ADENT AND STEVEN J. QUINLAN

Power of Attorney

Each of the undersigned, in his/her capacity as a director, officer, or both, of Neogen Corporation, appoints John E. Adent and Steven J. Quinlan, or either of them, to be his/her true and lawful attorney to execute in his/her name, place and stead, a Report on Form 10-K for the year ended May 31, 2021 and to file the same with any exhibits or amendments thereto and other documents in connection therewith, with the Securities and Exchange Commission. John E. Adent and Steven J. Quinlan shall have full power and authority to do and perform in the name and on the behalf of each of the undersigned, in any capacity, every act required or necessary to be done as fully as each of the undersigned might or could do in person.

Signature	Title	Date
/s/ John E. Adent John E. Adent	President & Chief Executive Officer (Principal Executive Officer)	July 30, 2021
/s/ Steven J. Quinlan Steven J. Quinlan	Vice President & Chief Financial Officer (Principal Financial & Accounting Officer)	July 30, 2021
/s/ James C. Borel James C. Borel	Chairman of the Board of Directors	July 30, 2021
/s/ William T. Boehm, Ph.D. William T. Boehm, Ph.D.	Director	July 30, 2021
/s/ Ronald D. Green, Ph.D. Ronald D. Green, Ph.D.	Director	July 30, 2021
/s/ Ralph A. Rodriguez Ralph A. Rodriguez	Director	July 30, 2021
/s/ James P. Tobin James P. Tobin	Director	July 30, 2021
/s/ Darci L. Vetter Darci L. Vetter	Director	July 30, 2021
/s/ Catherine E. Woteki, Ph.D. Catherine E. Woteki, Ph.D.	Director	July 30, 2021

EXHIBIT 31.1
CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO RULES 13a-14(a) and 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002
NEOGEN CORPORATION AND SUBSIDIARIES

I, John E. Adent, certify that:

1. I have reviewed this Annual Report on Form 10-K for the period ended May 31, 2021 of Neogen Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a) designed such disclosure controls and procedures or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation;

    d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting to the registrant's auditors and the audit committee of the registrant's board of directors:

    a) all significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: July 30, 2021

/s/ John E. Adent
John E. Adent
President & Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2
CERTIFICATION OF PRINCIPAL ACCOUNTING OFFICER
PURSUANT TO RULES 13a-14(a) and 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002
NEOGEN CORPORATION AND SUBSIDIARIES

I, Steven J. Quinlan, certify that:

1. I have reviewed this Annual Report on Form 10-K for the period ended May 31, 2021 of Neogen Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a) designed such disclosure controls and procedures or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation;

    d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting to the registrant's auditors and the audit committee of the registrant's board of directors:

    a) all significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: July 30, 2021

/s/ Steven J. Quinlan
Steven J. Quinlan
Vice President & Chief Financial Officer
(Principal Financial & Accounting Officer)

EXHIBIT 32
NEOGEN CORPORATION

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with this Annual Report on Form 10-K of Neogen Corporation (the "Company") for the period ended May 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, John E. Adent, as Chief Executive Officer and I, Steven J. Quinlan, as Chief Accounting Officer, hereby certify pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) This Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) Information contained in this Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: July 30, 2021

/s/ John E. Adent
John E. Adent
President & Chief Executive Officer
(Principal Executive Officer)

/s/ Steven J. Quinlan
Steven J. Quinlan
Vice President & Chief Financial Officer
(Principal Financial & Accounting Officer)

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.