## Commission file number 1-5725

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

DELAWARE
State or other jurisdiction of incorporation or organization

1900 WEST LOOP SOUTH, SUITE 1500 HOUSTON, TEXAS
Address of principal executive offices)

Securities registered pursuant to Section 12(b) of the Act:

COMMON STOCK, \$.50 PAR VALUE
RIGHTS TO PURCHASE SERIES A JUNIOR
PARTICIPATING PREFERRED STOCK
6.88\% CONVERTIBLE SUBORDINATED DEBENTURES

NEW YORK STOCK EXCHANGE, INC.
NEW YORK STOCK EXCHANGE, INC. NEW YORK STOCK EXCHANGE, INC.

Securities registered pursuant to Section $12(\mathrm{~g})$ of the Act:
NONE

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 $X$ No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation $S-K$ is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form $10-\mathrm{K}$ or any amendment to this Form $10-\mathrm{K}$. [ X ]

The aggregate market value of the registrant's voting stock held by non-affiliates as of November 30, 1996, computed by reference to the closing price for the Common Stock on the New York Stock Exchange, Inc. on that date, was $\$ 363,883,407$. Such calculation assumes only the registrant's officers and directors were affiliates of the registrant.

At November 30, 1996, there were outstanding $13,603,118$ shares of the registrant's Common Stock, $\$ .50$ par value.

## DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive Proxy Statement, to be filed with the Commission within 120 days of October 31, 1996, for its Annual Meeting of Stockholders to be held on February 27, 1997, are incorporated herein by reference in Items 10, 11,12 , and 13 of Part III of this Annual Report.

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## ITEM 1. BUSINESS

## GENERAL

The Company was organized in 1927 as a Michigan corporation under the name of Michigan Seamless Tube Company. The Company reincorporated in Delaware in 1968 under the same name and then changed its name to Quanex Corporation in 1977. The Company's executive offices are located at 1900 West Loop South, Suite 1500, Houston, Texas 77027. References made to the "Company" or "Quanex" include Quanex Corporation and its subsidiaries unless the context otherwise requires.

Quanex Corporation is a technological leader in the manufacture of value-added metal products made from carbon and alloy steel and aluminum. The Company's products include engineered hot rolled carbon and alloy steel bars, cold finished steel bars, seamless and welded steel tubing, aluminum sheet and fabricated products. Quanex's products include various high quality specialized products designed for specific markets and provide greater than average profit margins. The Company believes that its use of state-of-the-art process technology, low cost production and engineering to meet specific customer applications provides the Company with competitive advantages over many of its competitors. The Company has also sought to reduce the impact of cyclical economic downturns on its operations through diversification of the markets served. The markets served by the Company include the industrial machinery and capital equipment industries, the transportation industry (including auto and truck), energy processing and the home building and remodeling industries.

Since the mid-1980s Quanex has refocused its strategy from being a manufacturer principally of steel products with a heavy dependence on energy markets to a diversified, value-added specialized metals products company serving a broad range of markets. The Company's future growth strategy is focused on the continued penetration of higher margin markets for its various products, the continued expansion of its aluminum products manufacturing operations, rapid expansion of formed value-added products, and niche acquisitions. The Company's August 1996 acquisition of the assets of Piper Impact, Inc. ("Piper Impact"), a manufacturer of custom designed, impact extruded aluminum and steel parts for the transportation industry, is reflective of this strategy. Quanex also has implemented programs to increase capacity utilization by selectively producing certain commodity grade products at some of its facilities.

The Company has invested significantly in technologically advanced continuous manufacturing processes to meet demanding quality specifications and to achieve cost efficiencies. In its MacSteel operations, rotary centrifugal continuous casters are used with an in-line manufacturing process to produce bearing grade and aircraft quality, seam-free, specialty engineered carbon and alloy steel bars that enable Quanex to participate in higher margin markets. Since 1992, the Company has invested over $\$ 82$ million to enhance the steel refining processes, rolling and finishing capacity and the manufacturing capacity at its MacSteel operations by approximately 100,000 tons per year. The company is currently engaged in an additional \$60 million expansion and improvement program at MacSteel designed to increase caster productivity and productive capacity by approximately 70,000 tons, or $12 \%$, to 620,000 tons per year when completed. This project is expected to be completed in fiscal 1998.

The Company's business is managed on a decentralized basis. Each operating group has administrative, operating and marketing functions. Financial reporting systems measure each plant's return on investment, and the Company seeks to reward superior performance with incentive compensation, which is a significant portion of total employee compensation. Intercompany sales are conducted on an arms-length basis. Operational activities and policy are managed by corporate officers and a small staff who provide corporate accounting, financial and treasury management, tax and human resource services to operating divisions.

## MARKETS AND PRODUCT SALES BY BUSINESS SEGMENT

The Company's operations are primarily grouped into four business segments, consisting of (i) hot rolled steel bars, (ii) cold finished steel bars, (iii) steel tubes and (iv) aluminum products. General corporate expenses are classified as other operations.

Information with respect to major markets for the Company's products, expressed as a percentage of consolidated net sales, is shown under the heading "Sales by Major Markets" as set forth below. For financial information regarding each of Quanex's business segments, see "Management's Discussion and Analysis of Financial Condition and Results of Operation" herein and Note 10 to the Consolidated Financial Statements. Although Quanex has attempted to estimate its sales by product and market categories, many products have multiple end uses for several industries and sales are not recorded on the basis of product or market categories. A significant portion of sales is made to distributors who sell to different industries. Net sales by principal market are based upon the total dollar volume of customer invoices. For the year ended October 31, 1996, no single customer accounted for more than $10 \%$ of the Company's sales.

## SALES BY MAJOR MARKETS


(1) Decrease from prior years reflects the disposition of the Viking Metallurgical Corporation subsidiary during the second quarter of 1993.

The Company's hot rolled steel bar operations are conducted through its MacSteel division, consisting of two plants located in Ft. Smith, Arkansas and Jackson, Michigan. These plants manufacture hot finished precision engineered carbon and alloy steel bars. The Company believes that MacSteel has the only two plants in North America using continuous rotary centrifugal casting technology. This casting process produces inherently seam-free bars, without surface defects and inclusions, thereby reducing the need for subsequent surface conditioning. The continuous casting and automated in-line manufacturing operations at the MacSteel plants substantially reduce labor and energy costs by eliminating the intermittent steps that characterize manufacturing operations at most larger integrated steel mills. The Company typically sells only complete heat lots, or batches, which are made to specific customer requirements. Heat lots average 45 tons at Jackson and 50 tons at Ft. Smith. MacSteel's high quality steel bars currently sell for an average of approximately $\$ 540$ per ton, and its specialty products can sell at a considerable premium to that price.

Over time, MacSteel has focused its capital improvement programs on production of high quality specialty steel bars. Since 1991, the Company has invested significantly in the improvement of operations and expansion of annual manufacturing capacity at its MacSteel operations by a total of approximately 100,000 tons. These investments have resulted in improved metallurgical, melting and casting operations, provided ultrasonic testing facilities at both MacSteel facilities and upgraded and modernized MacSteel's rolling and finishing capacity and increased caster productivity. These improvements have also allowed the Company to produce bearing grade and aircraft quality steel bars and participate in the higher margin segments of the steel bar market. The Company is currently engaged in an additional \$60 million expansion and improvement program to increase capacity by approximately 70,000 tons per year by improving caster and melting utilization. Of the total $\$ 60$ million MacSteel project, $\$ 20$ million is related to a significant upgrade to pollution control systems to ensure compliance with EPA standards under the Clean Air Act.

MacSteel products are manufactured for customers in the automotive, light truck, heavy truck, anti-friction bearing, off-road and farm equipment, defense, capital equipment and seamless tubular industries. These industries use steel bar in critical applications such as camshafts, crankshafts, transmission gears, wheel spindles and hubs, bearing cages and rollers, steering components, hydraulic mechanisms and seamless tube production. Part of MacSteel's production may be sold to the Company's LaSalle Steel operations for conversion into cold finished bars. The Company's steel tube business also purchases MacSteel bars for piercing and extrusion into specialty tubular products. Piper Impact uses MacSteel for the manufacture of safety critical steel air bag inflators.

## Cold Finished Steel Bars

The Company's LaSalle Steel subsidiary produces cold finished bars in its Hammond, Indiana facility. LaSalle Steel is a technological leader in the production of cold finished and special purpose steel bar products, having obtained numerous foreign and domestic patents throughout its history. Like MacSteel, LaSalle Steel features products and manufacturing processes that emphasize quality and cost effectiveness. LaSalle Steel uses high quality hot finished steel bars that satisfy exacting quality and metallurgical specifications. The bars are cold drawn and, through a combination of turning, grinding and polishing operations, are manufactured into bars with precision surfaces and guaranteed size, length and straightness tolerances. These processes, together with heat treating, enhance the tensile and fatigue strength, machinability, wear and corrosion resistance, weldability and platability of the cold finished bar product.

LaSalle Steel's products are sold directly to customers in the machinery, industrial equipment, tooling and automotive markets and are used to produce items such as clutch shafts, gear box shafts, ball joints, sprockets and drive mechanisms. An increasing portion of these sales are precision bore, cut to precise lengths, packaged and shipped to customers on a just-in-time basis. Over one-half of LaSalle Steel's sales are to service centers that supply the same industries. LaSalle Steel has implemented programs to increase capacity utilization by selectively producing certain commodity grade products. In November 1996, a new $\$ 5$ million continuous coil-to-bar drawing line began operations, replacing an older single bar drawing line.

LaSalle Steel's Fluid Power plant in Griffith, Indiana is a major producer of chrome plated steel bars. The plant uses advanced techniques of surface removal, induction hardening and chrome plating to produce chrome plated bars and induction hardened chrome plated bars. These products, which represent the highest value-added products manufactured by LaSalle Steel, are used in hydraulic and pneumatic cylinders by customers in the construction, material handling, farm equipment and industrial machinery industries.

## Steel Tubes

The Company's steel tube business consists of its Michigan Seamless Tube plant in South Lyon, Michigan ("MST"), its Gulf States Tube plant in Rosenberg, Texas ("GST"), a heat treating plant in Huntington, Indiana ("Heat Treat"), and a NitroSteel plant in Kenosha, Wisconsin ("NitroSteel"). MST produces cold drawn seamless steel tubes and drawn-over-mandrel welded steel tube. GST produces hot finished and cold drawn seamless steel tubes and welded tubular products. Heat Treat provides tube and bar heat treating services. NitroSteel provides wear and corrosion resistant finishing to steel bars and tubes. A significant portion of production at all plants is manufactured to specific customer orders. The Company can deliver small quantities of finished products at competitive prices in considerably less time than many other mills as a result of its production efficiencies.

MST produces over 60 grades of carbon and alloy tubing. Major product lines include customized seamless carbon and alloy mechanical tubing, carbon and alloy boiler and condenser tubing and carbon and alloy pipe. These products are sold by MST to customers in the commercial and utility boiler market, industrial equipment market and capital goods market. A new finishing line made operational in October 1996 is expected to further increase manufacturing efficiency.

GST produces seamless and welded tubular products in 35 grades to over 100 specifications. The hot finished seamless carbon and alloy pipe and cold drawn tubing produced at GST are used in petroleum refining, petrochemical, aircraft, public utility, oil country and mechanical applications. Electric resistance welded tubing is also manufactured primarily for heat exchangers and condenser applications.

Heat Treat provides tube and bar heat treating services, such as quench and temper, stress relieving, normalizing and "cut-to-length". Metallurgical testing services are also provided. This plant serves customers in the energy, automotive, ordnance, mining and fluid power markets.

NitroSteel was acquired in January 1995, and began commercial operations in November 1995. This facility provides wear and corrosion resistant finishing to steel bars and tubes. NitroSteel's products are sold into fluid power markets.

The Company manufactures finished aluminum sheet and fabricates aluminum and steel products for the home improvement, new construction, light commercial construction and automotive markets. The principal products sold by the Company include aluminum window screens, patio door screens, window frames, window and screen components, rain carrying systems, exterior trim, mill finish sheet, air bag components and ordnance. Aluminum sheet is produced by the Company's mini-mill ("N-H Casting"). The aluminum sheet is cold rolled, finished and marketed from the Davenport, Iowa and Lincolnshire, Illinois finishing facilities (collectively, "Nichols-Aluminum"). The Company's fabricated products are manufactured at the AMSCO plant in Rice Lake, Wisconsin ("AMSCO"), its two Homeshield Fabricated Products plants in Chatsworth, Illinois ("HFP"), and at its two Piper Impact plants in New Albany, Mississippi and Park City, Utah. A third Piper Impact plant is currently under construction in New Albany and is scheduled to be completed and operational by April of 1997. The Company's aluminum products businesses are described below.

N-H Casting operates an aluminum mini-mill in Davenport, Iowa. The mini-mill has a capacity in excess of 300 million pounds annually of hot rolled coiled aluminum sheet for building products, transportation and service center markets, including the Company's fabricated products businesses and other markets. The N-H Casting mini-mill operates a state-of-the-art 52-inch wide Hazelett thin slab continuous caster, a three stand hot rolling mill and scrap processing and melting equipment. The three-stand hot rolling mill is able to reduce the cast aluminum slab from a thickness of approximately . 75 inches to coiled aluminum sheet with a thickness of .045 inches. This hot rolling mill process substantially reduces subsequent cold rolling requirements. The Company believes the advent of aluminum mini-mills, like the more developed steel mini-mills, offers competitive advantages over large integrated producers, including labor and energy savings and reduced capital and raw material costs.

Nichols Aluminum finishes the aluminum sheet produced at N-H Casting and markets both coated and mill finished aluminum sheet. This division includes the Nichols Aluminum Davenport ("NAD") plant and the Nichols Aluminum Lincolnshire ("NAL") plant. Operations include cold rolling to specific gauge, slitting to width, annealing, leveling and custom coating. The Company currently has cold rolling capacity of approximately 300 million pounds annually depending upon product mix.

The HFP plants manufacture a broad line of custom designed, roll formed and stamped shapes and residential building and home improvement products. HFP designs and manufactures custom engineered aluminum products at its plants in Chatsworth, Illinois, such as window and screen components, wood window cladding and other custom products for manufacturers of premium wood windows. HFP also coats and fabricates aluminum coil in many colors, sizes and finishes into rain carrying systems, soffit, exterior housing trim and painted coiled sheet and roofing products. These products are sold primarily through distributors and private label producers for the new housing, remodeling and do-it-yourself markets. Most of these products are marketed under the "Homeshield" brand name.

The AMSCO plant manufactures aluminum window and patio door screens, window frames, combination windows and related accessories. Most of the production from this facility is sold to Andersen Corporation, a major manufacturer of premium wood windows, for the home improvement, new construction and commercial construction markets. AMSCO combines a strong product design and development emphasis with reliable, just-in-time delivery.

Piper Impact, which was acquired in August 1996, manufactures custom designed, impact-extruded aluminum and steel parts for the transportation, electronics and defense markets. The majority of Piper Impact's sales are to the transportation market in the form of air bag components. Within the transportation market, one customer, Morton International, represents more than one-half of the sales of Piper Impact.

## MANUFACTURING

Quanex operates sixteen manufacturing facilities in nine states. These facilities feature efficient plant design and flexibility in manufacturing processes, enabling the Company to produce a wide variety of products for various industries and applications. The Company is generally able to maintain minimal levels of finished goods inventories at most locations because it typically manufactures products to customer specifications upon order.

Hot Rolled Steel Bars. The Company's MacSteel facilities produce various grades of specialty engineered steel bars by melting high quality steel scrap and casting it in a rotary continuous caster. MacSteel's molten steel goes through a secondary refining stage consisting of argon stirring, ladle injection and vacuum arc degassing prior to casting. This enables MacSteel to produce higher quality, "cleaner" steels. Precision engineered products are produced through a continuous in-line process by which scrap steel is converted into hot rolled steel bars without interruption.

As a result of its state-of-the-art continuous manufacturing technology, which reduces labor, energy and process yield loss, the Company believes that MacSteel is one of the lowest cost producers of precision engineered carbon and alloy steel bars. The Company believes that energy costs at MacSteel are significantly lower than those of its competitors because its bars are moved directly from the caster to the rolling mill before cooling, eliminating the need for costly reheating. MacSteel's unit labor costs are maintained at low levels with its highly automated manufacturing process enabling it to produce finished high quality steel bars using approximately 2 man-hours of labor per ton compared to an estimated average of 5.0 man-hours per ton for U.S. integrated steel producers.

Cold Finished Steel Bars. At the LaSalle Steel facility in Hammond, Indiana, hot finished steel bars meeting quality and metallurgical specifications are used as raw materials in the manufacturing process. These bars are cold drawn and, through a combination of turning, grinding and polishing operations, manufactured into bars having precision surfaces with guaranteed size, length and straightness tolerances. Heat treating further enhances the strength, machinability, wear and toughness of LaSalle Steel's cold finished bar products. The Company's Griffith, Indiana facility uses advanced techniques of surface preparation, induction hardening and chrome plating to produce chrome plated bars and induction hardened chrome plated bars with improved corrosion and wear resistance.

Steel Tubes. The Company produces seamless tubing at its MST and GST facilities. The manufacturing begins with solid steel bars that are heated and then pierced on a rotary piercing mill at MST or extruded at GST. The resulting hot tube shells are further reduced to the desired dimension (diameter) on draw benches. The product may be shipped as hot finished pipe at GST or, after cooling and inspection, be again reduced in size by cold drawing at both plants. After cold drawing, tubing is annealed to develop specific metallurgical characteristics and mechanical properties to customer order. Following straightening, the product is cut to length and transferred to final inspection where various mechanical and non-destructive tests are performed to insure product integrity. Cold drawn tubing offers a greater degree of dimensional consistency and better machinability than does hot finished tubing. GST also produces small diameter welded tubular products.

Aluminum Products. Manufacturing at the Company's various facilities ranges from the production of coiled aluminum sheet to the production and fabrication of finished metal products, such as window screens, window frames and air bag components.

The Company's aluminum casting operations are conducted at $\mathrm{N}-\mathrm{H}$ Casting's mini-mill in Davenport, Iowa. The single in-line manufacturing process at the facility has 300 million pounds of annual hot rolled aluminum capacity. The mini-mill converts scrap to aluminum sheet through melting, continuous casting and in-line hot rolling. N-H Casting also has the ability to shred scrap to broaden the diversity and sources of its scrap raw material. Delacquering equipment improves the quality of the raw material before it reaches the melting furnaces by burning off impurities within the scrap. The scrap is blended using computer programs to achieve the desired alloy composition and best economics. After melting and degassing, the molten metal flows into a single Hazelett thin-slab caster, which casts up to a 52 -inch wide aluminum slab at the rate of 20 to 26 feet per minute. The slab then is fed directly to a hot mill with three in-line rolling stands to reduce the slab from a thickness of approximately .75 inches to coiled aluminum sheet with a target thickness of . 045 inches. The combination of capacity increases and technological enhancements directed at producing quality hot rolled aluminum sheet with cost savings derived from optimized scrap utilization, reduced energy cost per pound, reduced cold rolling requirements and decreased labor costs results in a significant manufacturing advantage.

Further processing of the coiled aluminum sheet hot rolled from the mini-mill occurs at Nichols Aluminum. At Nichols Aluminum's Davenport, Iowa, and Lincolnshire, Illinois, plants, the specific product requirements of customers can be met through cold rolling to various gauges, annealing for additional product formability, tension levelling and slitting to specific widths. Products at Davenport can also be custom coated, an important feature for the building products applications of certain customers.

Manufacturing of value-added products and components takes place at the group's HFP facilities (including residential building products such as rain carrying systems and engineered products such as window and screen components), at AMSCO (including aluminum windows and patio door screens) and at Piper Impact (including air bag components, ordnance and electronic components). These facilities fabricate aluminum and steel into various components, some of which are then assembled into final products.

## RAW MATERIALS AND SUPPLIES

The Company's precision engineered steel bar plants purchase steel scrap and hot briquetted iron, their principal raw materials, on the open market. Transportation of these raw materials to Company plants can be adversely affected by cold weather, creating seasonal price increases. Prices for quality scrap also vary in relation to the general business cycle, typically declining in periods of slow economic growth. LaSalle Steel's primary raw material is hot finished steel bars that it purchases both from the Company's hot rolled steel bar plants and on the open market. The company's tube manufacturing facilities also purchase hot rolled steel bars from MacSteel and on the open market. MST also purchases tube hollows and GST purchases flat-rolled steel as raw material on the open market. Piper Impact's raw material consists of aluminum bars which it purchases on the open market and steel bars which it purchases from MacSteel.

Nichols-Homeshield's principal raw material is aluminum scrap. N-H Casting's mini-mill includes a scrap processing and delacquering facility, which enables the Company to use the broadest and most economical mix of aluminum scrap for its requirements. The Company also purchases aluminum ingot futures contracts on the London Metals Exchange in amounts equal to $\mathrm{N}-\mathrm{H}^{\prime} \mathrm{s}$ requirements for fixed price sales commitments for aluminum products and then sells these contracts coincident with delivery of product, thereby protecting against increases in the price of the aluminum used to manufacture the related products.

## BACKLOG

At October 31, 1996, Quanex's backlog of orders to be shipped in the next twelve months was $\$ 206.5$ million. This compares to $\$ 164.0$ million at October 31, 1995. The increase is mostly due to the Piper Impact acquisition Because many of the markets in which Quanex operates have short lead times, backlog figures are not reliable indicators of annual sales volume or operating results.

## COMPETITION

All of the Company's products are sold under highly competitive conditions. The Company competes with a number of companies, some of which have financial and other resources greater than those of the Company. Competitive factors include product quality, price, delivery and ability to manufacture products to customer specifications. The amounts of tubing, aluminum products, cold finished bar products and steel bars produced by the Company represent a small percentage of annual domestic production.

The hot rolled precision engineered steel bar plants compete with two large integrated steel producers, two large non-integrated steel producers and two smaller steel companies. Although many of these producers are larger and have greater resources than the Company, the Company believes that the technology used at the MacSteel facilities permits it to compete effectively in the markets it serves

LaSalle Steel has ten major competitors including both integrated and independent steel producers. Although a portion of LaSalle Steel's sales are in specialized products made by patented processes, many of their competitors have similar products using their own patents and processes.

The Company's steel tube manufacturing businesses compete with numerous domestic and foreign steel producers. As a specialized producer, the steel tube segment manufactures seamless steel tubing only in the smaller size ranges. Currently there are five other manufacturers of seamless tubing in the same size ranges as those produced by Quanex. Each of these manufacturers is either wholly or partially integrated in that they produce all or part of the steel used by them for their production of tubing. The Company's welded tube business is also highly competitive, with more than 100 companies producing welded steel tubing. For reasons of geography and product quality, however, the number of welded tube manufacturers with which Quanex is in direct competition is significantly lower. Imports are a significant factor in this market. Certain competitors of GST are currently subject to countervailing duties ranging from $3 \%$ to $124 \%$ due to a determination by the International Trade Commission that such competitors had engaged in dumping or benefited from subsidized sales.

The Company's aluminum products businesses compete with many small and large aluminum sheet manufacturers and metal fabricators. Some of these competitors are divisions or subsidiaries of major corporations with substantially greater resources. The Company also competes with major aluminum producers in coil-coated and mill products, primarily on the basis of the breadth of product lines, the quality and design of its products, the responsiveness of its services and its prices.

## SALES AND DISTRIBUTION

The Company has a nationwide system of sales offices. MacSteel sells hot finished steel bars primarily to original equipment manufacturers ("OEM's") through its sales organization and manufacturers' representatives. LaSalle Steel sells its cold finished bars to independent distributors, steel service centers and directly to OEM's. The steel tube segment's products are sold by its sales organization to steel service centers and directly to OEM's.

The sales and distribution of products in the Company's aluminum products businesses are organized by major product group. Residential products are sold primarily through distributors; engineered and fabricated products are sold primarily to OEM's; and mill products are sold directly to OEM's and through metal service centers.

## SEASONAL NATURE OF BUSINESS

With the exception of Piper Impact, the business of which is not seasonal, the Company's aluminum and fabricated products businesses are seasonal as its primary markets are in the Northeast and Midwest regions of the United States where winter weather reduces home building and home improvement activity. Historically, this business's lowest sales have occurred during the Company's first fiscal quarter. Because a high percentage of this business's manufacturing overhead and operating expenses is due to labor and costs that are generally fixed throughout the year, profits for the operations in this business tend to be lower in quarters with lower sales.

The other businesses in which the Company competes are not seasonal. However, due to the holidays in the Company's first fiscal quarter and steel plant shutdowns for vacations and maintenance in the Company's third fiscal quarter, sales have historically been lower in those quarters. Due to the combined effects of seasonality, the Company generally expects that, absent unusual activity or changes in economic conditions, its lowest sales will occur in the first fiscal quarter.

## TRADEMARKS, TRADE NAMES AND PATENTS

The Company's Nichols-Homeshield and MacSteel logos and designs are registered trademarks. The trade name "Homeshield" and its unregistered name "Nichols-Homeshield" are used in connection with the sale of the Company's aluminum products. The Homeshield and MacSteel logos and designs and their trade names are considered valuable in the conduct of the Company's business.

The businesses conducted by the Company generally do not depend upon patent protection. Although the Company holds numerous patents, in many cases the proprietary technology that the Company has developed for using the patents is more important than the patents themselves.

Expenditures for research and development of new products or services during the last three years were not significant. Although not technically defined as research and development, a significant amount of time, effort and expense is devoted to customizing and qualifying the Company's products for specific customer applications.

## ENVIRONMENTAL MATTERS

As a manufacturer of specialized metal products, Quanex is subject to extensive and expansive regulations concerning the discharge of materials into the environment, and the remediation of chemical contamination at its plant sites or offsite disposal locations. Quanex is required to make capital and other expenditures on an ongoing basis in order to comply with such regulations. The cost of environmental matters has not had a material adverse effect on Quanex's operations or financial condition in the past, and management is not currently aware of any existing conditions that it currently believes are likely to have a material adverse effect on Quanex's operations or financial condition.

Under applicable state and federal laws, including the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended ("CERCLA"), also known as "Superfund," the Company may be responsible for all or part of the costs required to remove or remediate wastes or hazardous substances at the locations Quanex at any time has owned or operated. This responsibility includes remediation and corrective action at the plant currently operated by the Company's Piper Impact subsidiary in New Albany, Mississippi that is subject to historic soil and groundwater contamination. Having undertaken preliminary technical studies of the contamination, Quanex estimates that $\$ 20$ million will be required to complete necessary cleanup. The timing and final extent of remedial work currently are not determined. The final cost could be more or less; however, Quanex has reserved $\$ 20$ million towards the cleanup and is attempting to negotiate mutually acceptable remediation plans with the State of Mississippi.

Quanex also may be liable pursuant to state and federal environmental laws such as CERCLA for all or part of the costs incurred to clean up third-party sites where it arranged for disposal of hazardous substances. The Company's most significant involvement to date at third-party Superfund sites is described below.

During fiscal 1987, Quanex's LaSalle Steel Company subsidiary paid approximately $\$ 200,000$, of which approximately $\$ 130,000$ has subsequently been contributed to Quanex by other potentially responsible parties, in connection with a removal action at the Conservation Chemical Co. of Illinois site in the State of Indiana in accordance with an order of the Environmental Protection Agency (the "EPA") pursuant to Section 106 of CERCLA. This matter relates to hazardous substances sold to owners of the waste site by a company whose assets were purchased by Quanex and transferred to LaSalle Steel. LaSalle was named in this matter by the EPA as a potentially responsible party. LaSalle and other parties named by the EPA as potentially responsible parties took various actions to comply with the EPA's order. The Company believes that the response actions contemplated by the EPA removal order have been substantially completed. In 1989, LaSalle withdrew from the group of potentially responsible parties because its only connection to the site was the purchase of assets, without contractually assuming liabilities, from a company that allegedly sent waste to the site. The extent of any further cleanup assessments against the company therefore is unknown by Quanex. Even if the company is unsuccessful in asserting its defenses, LaSalle was one of numerous parties contributing cleanup funds and it has no reason to believe that those other parties generally would not be able to pay costs apportioned to them. For all of these reasons, Quanex does not believe that its liability, if any, with respect to this facility, will have a material adverse effect on its business or financial position.

The EPA has placed on the Superfund National Priorities List the Lenz Oil site in the State of Illinois to which a company, whose assets were purchased by Quanex and transferred to LaSalle Steel, had previously sent used petroleum products. The State of Illinois previously had sent a letter to LaSalle Steel stating that those materials had been disposed of improperly at that site. LaSalle Steel, in conjunction with a group of parties who received similar letters, entered into a consent decree pursuant to which action was taken to address the matters referred to in the letter from the State of Illinois. LaSalle paid approximately $\$ 8$ thousand out of a $\$ 2.5$ million group settlement. LaSalle Steel is currently participating in a group that is assessing site conditions and further remediation options. Further liability could be asserted against Quanex as a result of the EPA's actions. The company that sold its assets to LaSalle Steel is one of many companies that had sent materials to this facility. It is Quanex's understanding that such company contributed approximately $0.041 \%$ of the total volume of materials handled at this facility. The Company has no reason to believe that the other companies involved will not be financially able to contribute to any possible future cleanup efforts at this site, or that the basis for allocation of liability will substantially change. As a result of the foregoing, Quanex does not believe that its liability, if any, with respect to this facility, will have a material adverse effect on its business or financial position.

The EPA also has placed on the National Priorities List the Douglassville, or Berks Associates, Disposal Site in the Commonwealth of Pennsylvania to which LaSalle Steel is alleged to have sent used petroleum products. The EPA currently is administering a multistage cleanup at the site. Liability has been asserted against the Company by a group of potentially responsible parties for contribution toward cleanup costs incurred at the facility. It is Quanex's understanding that many companies sent wastes to this site and that LaSalle is alleged to have contributed a tiny portion of the total volume. The group of defendants and third-party defendants include a number of large companies and several agencies of the federal government that the Company has no reason to believe will not be financially able to contribute their expected share of cleanup costs. These parties have expressed a willingness to participate in settlement efforts. Pursuant to settlement negotiations, LaSalle Steel currently is classified as a de minimis contributor. Based on the foregoing, Quanex does not believe that its liability, if any, with respect to this site, will have a material adverse effect on its business or financial position.

Amendments to the federal Clean Air Act were adopted in 1990, and the EPA currently is developing regulations to implement the requirements of those amendments. Depending on the nature of the regulations adopted, and upon requirements that may be imposed by state and local regulatory authorities, Quanex may be required to incur capital expenditures sometime in the next several years for air pollution control equipment, to maintain or obtain operating permits and approvals and address other air emission-related issues. The Company's Board of Directors has approved capital expenditures totaling approximately $\$ 20$ million to be spent in 1996, 1997, and 1998 to meet these requirements. Based upon its analysis to date, Quanex does not believe that its compliance with these requirements will have a material effect on its operations or financial condition.

Quanex incurred approximately $\$ 3,900,000$ and $\$ 3,300,000$ during fiscal 1996 and 1995, respectively, in expenses and capital expenditures in order to comply with existing or proposed environmental regulations. It is anticipated that Quanex will spend approximately $\$ 14,000,000$ at various of its facilities during fiscal 1997. The 1997 amount includes spending toward a significant upgrade to pollution control systems at MacSteel to ensure compliance with EPA standards under the Clean Air Act. Although not currently quantifiable or expected to be material to the Company as a whole, Quanex will continue to have expenditures in connection with environmental matters beyond 1997. Future expenditures relating to environmental matters will necessarily depend upon existing future regulations and their application to Quanex and its facilities.

At October 31, 1996, the Company employed 4,016 persons. Of the total employed, $32 \%$ were covered by collective bargaining agreements. During calendar year 1997, two labor contracts will expire affecting three Quanex facilities. The Progressive Steelworkers of Hammond contract at LaSalle Steel covering 299 employees will expire on May 11, 1997. The International Brotherhood of Teamsters contract with two facilities of Nichols Aluminum covering 247 employees will expire November 11, 1997.

ITEM 2. PROPERTIES
The following table lists Quanex's principal plants at October 31, 1996, together with their locations, general character and the industry segment which uses the facility. Each of the facilities identified as being owned by the Company is free of any material encumbrance.

| Owned | Hot Rolled Steel Bars | Square Footage |
| :---: | :---: | :---: |
| Fort Smith, Arkansas | MacSteel | 415, 723 |
| Jackson, Michigan | MacSteel | 245,150 |
| Owned | Cold Finished Steel Bars |  |
| Griffith, Indiana | Fluid Power | 37,000 |
| Hammond, Indiana | LaSalle Steel | 493, 000 |
| Owned | Steel Tubes |  |
| Rosenberg, Texas | Gulf States Tube | 128, 000 |
| South Lyon, Michigan | Michigan Seamless Tube | 323, 000 |
| Huntington, Indiana | Heat Treating | 82,000 |
| Leased (expires 2009) |  |  |
| Kenosha, Wisconsin | NitroSteel | 35,000 |
| Owned | Aluminum Products |  |
| Rice Lake, Wisconsin | AMSCO | 290,800 |
| Chatsworth, Illinois | Homeshield Fabricated Products | 212,000 |
| Lincolnshire, Illinois | Nichols Aluminum | 142, 000 |
| Davenport, Iowa | Nichols Aluminum | 236, 000 |
| Davenport, Iowa | Nichols-Aluminum Casting | 245,000 |
| New Albany, Mississippi | Piper Impact | 475, 000 |
| Park City, Utah | Piper Impact | 130, 000 |
| Leased (expires 1999) | Executive Offices |  |
| Houston, Texas | Quanex Corporation | 21,000 |

## ITEM 3. LEGAL PROCEEDINGS

Other than the proceedings described under Item 1, "Environmental Matters", there are no material legal proceedings to which Quanex, its subsidiaries, or their property is subject.

ITEM 4. SUBMISSION OF MATTERS TO VOTE OF SECURITY HOLDERS
None.

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS
Quanex's common stock, $\$ .50$ par value, is traded on the New York Stock
Exchange, ticker symbol: NX. Quarterly stock price information and annual
dividend information for the common stock is as follows:


The terms of Quanex's revolving credit arrangements with certain banks, limit the total amount of common and preferred stock dividends and other distributions on such stock. Under the most restrictive test under such credit facilities, the total common stock dividends the Company may declare and pay is limited to $\$ 21,000,000$, plus $50 \%$ of consolidated net earnings after October 31, 1989, adjusted for other factors as defined in their respective Loan Agreements. As of October 31, 1996, the amount of dividends and other distributions the Company was permitted to declare and pay under its credit facilities was $\$ 35,571,000$

There were 3,425 record holders of Quanex common stock on October 31, 1996.

## GLOSSARY OF TERMS

The exact definitions of commonly used financial terms and ratios vary somewhat among different companies and investment analysts. The following list gives the definition of certain financial terms that are used in this report:

Capital expenditures: Additions to property, plant and equipment
Book value per common share: Stockholders' equity less the stated value of preferred stock divided by the number of common shares outstanding.

Asset turnover: Net sales divided by average total assets.
Current ratio: Current assets divided by current liabilities.
Fixed charge coverage: The sum of income before income taxes plus interest expense, plus the estimated interest component of rentals, less capitalized interest, plus amortization of previously capitalized interest, plus amortization of deferred debt issuance costs; divided by interest expense, plus the estimated interest component of rentals, plus amortization of deferred debt issuance costs.

Return on investment: The sum of net income and the after-tax effect of interest expense less capitalized interest divided by the sum of the averages for long-term debt and stockholders' equity.

Return on common stockholders' equity: Net income attributable to common stockholders divided by average common stockholders' equity.

(1) On August 9, 1996, Quanex Corporation acquired Piper Impact, Inc. 1996 results include three months of Piper Impact's operations. On August 22, 1989, Quanex Corporation acquired Nichols-Homeshield, Inc. 1989 results include two months of Nichols-Homeshield operations.
(2) 1996 and 1995-early extinguishment of debt; 1992-cumulative effect of accounting change from postretirement welfare benefits; 1988-primarily loss on early extinguishment of debt; 1987-reduction of income taxes arising from carryforward of prior year operating losses.

| 1992 | 1991 | 1990 | 1989(1) | 1988 | 1987 | 1986 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 572, 090 | 588,888 | 650,316 | 501,991 | 462,916 | 345,409 | 324,835 |
| 506,778 | 514,894 | 551, 929 | 418,580 | 383, 399 | 305, 725 | 304, 330 |
| 65,312 | 73,994 | 98, 387 | 83,411 | 79,517 | 39,684 | 20,505 |
| 46,534(3) | 38,914 | 41,207 | 30,136 | 29,495 | 23,415 | 26,476 |
| 18,778 | 35, 080 | 57,180 | 53,275 | 50, 022 | 16,269 | $(5,971)$ |
| 3.3 | 6.0 | 8.8 | 10.6 | 10.8 | 4.7 | (1.8) |
| 2,399 | 673 | $(2,106)$ | 703 | 1,596 | 6,758 | 83 |
| 10,495 | 14,306 | 9,880 | 6,837 | 15,081 | 17,019 | 17,255 |
| 10,682 | 21,447 | 45,194 | 47,141 | 36,537 | 6,008 | $(23,143)$ |
| 4,487 | 9,007 | 17,174 | 17,891 | 13,600 | 2,958 | $(3,200)$ |
| $(25,108)(2)$ | -- | -- | -- | $(4,464)(2)$ | 2,158(2) | -- |
| $(18,913)$ | 12,440 | 28,020 | 29,250 | 18,473 | 5,208 | $(19,943)$ |
| (3.3) | 2.1 | 4.3 | 5.8 | 4.0 | 1.5 | (6.1) |
| 0.28 | 1.02 | 2.03 | 2.11 | 1.85 | 0.25 | (1.63) |
| (1.70) | 1.02 | 2.03 | 2.11 | 1.48 | 0.42 | (1.63) |
| 0.52 | 0.48 | 0.40 | 0.30 | 0.08 | -- | -- |
| 11.10 | 12.99 | 12.33 | 10.83 | 9.13 | 7.83 | 7.41 |
| 12,696 | 11,679 | 12,224 | 12,380 | 12,270 | 12,257 | 12,256 |
| 31 1/2 | 23 | 18 1/2 | 19 | 14 1/2 | 9 | 8 |
| 15 1/2 | 10 1/8 | 9 1/8 | 12 3/4 | 4 1/4 | 3 | 3 5/8 |
| 154,455 | 69,142 | 74,187 | 76,257 | 64,820 | 43,772 | 24,513 |
| 239,538 | 220, 038 | 187,712 | 194,638 | 141,640 | 155,766 | 169,782 |
| 44,801 | 45,431 | 44,683 | 35,580 | 3,688 | 7,662 | 13,132 |
| 534,749 | 446,459 | 451, 381 | 400, 076 | 301,465 | 277,612 | 265,595 |
| 16,675 | 32,428 | 31,400 | 37,132 | 14,890 | 4,623 | 3,545 |
| 128,894 | 162,792 | 131,498 | 94, 214 | 38,953 | 96,847 | 113, 055 |
| 237,592 | 152,488 | 181,430 | 167,630 | 146,654 | 95,988 | 90,764 |
| 366,486 | 315, 280 | 312,928 | 261,844 | 185,607 | 192,835 | 203,819 |
| 35.2 | 51.6 | 42.0 | 36.0 | 21.0 | 50.2 | 55.5 |
| 1.2 | 1.3 | 1.5 | 1.4 | 1.6 | 1.3 | 1.2 |
| 2.6 to 1 | 1.7 to 1 | 1.8 to 1 | 1.8 to 1 | 1.7 to 1 | 1.7 to 1 | 1.5 to 1 |
| 1.52 | 2.12 | 5.12 | 7.47 | 2.84 | 1.42 | (0.16) |
| (3.8) | 6.6 | 11.9 | 15.0 | 14.8 | 10.1 | (2.4) |
| (14.2) | 8.0 | 17.8 | 21.3 | 17.5 | 5.6 | (19.8) |
| 44,932 | 37,971 | 49,848 | 56,883 | 52,784 | 25,762 | $(2,918)$ |
| 26,777 | 25,741 | 22,920 | 17,442 | 18,355 | 18, 091 | 20,597 |
| 52,516 | 47,945 | 31,939 | 13,781 | 5,348 | 2,210 | 5, 045 |
| 119, 254 | 91, 396 | 114,534 | 116,641 | 110,955 | 101,679 | 69,941 |
| 3,596 | 3,894 | 4,262 | 4,578 | 5,318 | 5,483 | 5,808 |
| 2,725 | 2,886 | 3, 001 | 2,135 | 2,013 | 1,843 | 1,925 |
| 210 | 204 | 217 | 235 | 230 | 187 | 169 |

(3) Includes $\$ 7.2$ million facilities realignment charge.
(4) Working capital provided by operations is a supplemental financial measurement used in the evaluation of the company's business and should not be construed as an alternative to operating income or cash provided by operating activities since it excludes the effects of changes in working capital.

The Company classifies its operations into four business segments: hot rolled steel bars, cold finished steel bars, steel tubes and aluminum products. The Company's products are marketed to the industrial machinery and capital equipment industries, the transportation industry, the energy processing industry and the home building and remodeling industries.

The Company's results for 1996 continued the trend of record revenues and earnings for the Company. The Company, however, did recognize a decline in its margins due to, among other things, lower average selling prices, increased raw material costs and increased depreciation charges. These declines were substantially offset by increased sales and operating income in the Company's aluminum and fabrication products segment, principally due to the fourth quarter acquisition by the Company of Piper Impact. Overall demand for the Company's products was strong, with all of the Company's operations operating at high utilization levels.

The Company's hot rolled steel bar business experienced lower operating income for 1996 compared to 1995 even though sales unit volume was higher. The results for 1995 reflected the benefits of unusually high surcharges for molybdenum, chrome and scrap, which did not occur in 1996. Operating income was also negatively impacted in 1996 by increased depreciation related to the completion of Phase II of the Company's MacSteel expansion project and by higher accruals to the allowance for doubtful accounts. Lower operating income in the Company's cold finished steel bar business in 1996 compared to 1995 resulted principally from lower average selling prices and lower sales unit volume as the Company experienced a softening in demand for this segment's products. The Company's steel tube business results for 1996 were adversely affected by higher conversion costs as compared to 1995. The Company's aluminum products business was affected in 1996 by improved demand and lower conversion costs, partly offset by higher accruals to the allowance for doubtful accounts. The company's aluminum products business also benefited by the acquisition of Piper Impact and margins between selling prices and raw material costs, particularly in the first half of fiscal 1996. These margins, referred to herein as "price spreads", are a key financial performance indicator in the aluminum products business.

During the first quarter of fiscal 1996, the Company acquired its remaining $10.77 \%$ Senior Notes for a purchase price equal to $107.5 \%$ of the principal amount plus accrued interest. The purchase resulted in an extraordinary charge of $\$ 2.5$ million ( $\$ 4.3$ million before taxes).

The Company currently expects that overall business levels for fiscal 1997 should be similar to those experienced during 1996. However, domestic and global market factors will impact the Company and any slowdown in the U.S. economy could affect demand and pricing for many of the Company's products. The acquisition of Piper Impact will affect 1997 and is expected to result in higher sales and assuming no material declines in the markets in which it serves, be accretive to earnings. Improved financial results will be dependent upon, among other things, whether the continued strength of the economy can be sustained, improvements in the markets which the Company serves and improvement in the price spreads of aluminum products.

The following table sets forth selected operating data for the Company's four business segments:

## Years Ended October 31,

| 1996 | 1995 | 1994(1) |
| :---: | :---: | :---: |

(In thousands)

| Hot Rolled Steel Bars: |  |  |  |
| :---: | :---: | :---: | :---: |
| Units shipped (Tons) | 526.8 | 503.0 | 476.1 |
| Net sales | \$287, 290 | \$282, 100 | \$245, 219 |
| Operating income | 38,181 | 41, 552 | 31, 209 |
| Depreciation and amortization | 17,815 | 15,284 | 12,862 |
| Identifiable assets | \$167, 029 | \$172,544 | \$167,583 |
| Cold Finished Steel Bars: |  |  |  |
| Units shipped (Tons) | 176.5 | 182.9 | 182.9 |
| Net sales | \$158, 549 | \$170,675 | \$160, 010 |
| Operating income | 10,359 | 11,461 | 8,618 |
| Depreciation and amortization | 1,453 | 1,310 | 1,268 |
| Identifiable assets | \$ 54,740 | \$ 54,985 | \$ 51,405 |
| Steel Tubes: |  |  |  |
| Units shipped (Tons) | 94.2 | 94.2 | 81.4 |
| Net sales ......... | \$120, 282 | \$119,915 | \$106, 136 |
| Operating income | 7,640 | 8,724 | 6,492 |
| Depreciation and amortization | 2,285 | 1,966 | 1,992 |
| Identifiable assets | \$ 47,755 | \$ 43, 777 | \$ 38,939 |
| Aluminum Products(2): |  |  |  |
| Units shipped (Pounds) | 254,559 | 230, 039 | 154,503 |
| Net sales | \$344, 867 | \$331, 565 | \$200, 932 |
| Operating income | 25, 088 | 22, 080 | 9,606 |
| Depreciation and amortization | 16,184 | 13,135 | 12,077 |
| Identifiable assets | \$412, 048 | \$230, 586 | \$221, 332 |

(1) Excludes the effects of charges to a $\$ 7.2$ million general write-down reserve recorded against manufacturing facilities in 1992 that could not be allocated against specific facilities or between businesses and was therefore reflected as a charge against "Corporate and Other" operations and the
identifiable assets included within "Corporate and Other" operations. In 1994, $\$ 4.3$ million was charged against the reserve, which included $\$ 2.5$ million relating to the aluminum products business, $\$ 900$ thousand relating to the steel tubes business and $\$ 900$ thousand relating to write-downs of assets classified in "Corporate and Other". (See Note 10 to consolidated financial statements).
(2) 1996 Results include three months of Piper Impact's operations.

NET SALES - Net sales for fiscal 1996 were $\$ 895.7$ million, representing an increase of $\$ 4.5$ million when compared to fiscal 1995. This increase resulted principally from higher volumes in the hot rolled steel bar and aluminum products businesses, offset by lower selling prices in both of these businesses.

Net sales for fiscal 1996 from the Company's hot rolled steel bar business were $\$ 287.3$ million, representing an increase of $\$ 5.2$ million, or $2 \%$, when compared to fiscal 1995. This increase was primarily attributable to a 5\% increase in volume and was offset by a $3 \%$ decrease in average selling prices. Decreases in average selling prices resulted from unusually high surcharges for molybdenum, chrome and scrap during 1995. The increased volume resulted from improved market share and the additional capacity added during fiscal 1995.

Net sales for fiscal 1996 from the Company's cold finished steel bar business were $\$ 158.5$ million, representing a decrease of $\$ 12.1$ million, or $7 \%$, when compared to the record levels in fiscal 1995. The decrease was attributable to a decrease in volume of $3 \%$ and a decrease in average selling price of $4 \%$. The decrease in shipments was less than the decrease in total cold finished steel industry shipments due to continued improved market share.

Net sales from the Company's steel tube business for fiscal 1996 were $\$ 120.3$ million compared to $\$ 119.9$ million in 1995. Tons shipped and average selling prices were comparable in both periods.

Net sales from the Company's aluminum products business for fiscal 1996 were $\$ 344.9$ million, representing an increase of $\$ 13.3$ million, or $4 \%$, when compared to fiscal 1995. This increase was partly attributable to the acquisition of Piper Impact. Excluding Piper Impact, pounds shipped increased $9 \%$ in 1996 compared to 1995. Average selling prices, however, decreased $13 \%$ during the same period. The increase in pounds shipped was primarily the result of improved market share.

OPERATING INCOME - Consolidated operating income for fiscal 1996 was $\$ 66.5$ million, which is level with fiscal 1995.

Operating income from the Company's hot rolled steel bar business for fiscal 1996 was $\$ 38.2$ million, representing a decrease of $\$ 3.4$ million, or $8 \%$, when compared to fiscal 1995. This decrease was principally due to increased selling, general and administrative expenses related to higher accruals to the allowance for doubtful accounts.

Operating income from the Company's cold finished steel bar business for fiscal 1996 was $\$ 10.4$ million, representing a decrease of $\$ 1.1$ million, or $10 \%$, when compared to fiscal 1995. This decrease in operating income was principally due to the lower sales.

Operating income from the Company's steel tube business for fiscal
1996 was $\$ 7.6$ million, representing a decrease of $\$ 1.1$ million, or $12 \%$, when compared to fiscal 1995. This decrease was principally due to higher conversion costs and operating losses at the Company's NitroSteel division, a small division that was acquired by the Company in early fiscal 1995.

Operating income from the Company's aluminum products business for fiscal 1996 was $\$ 25.1$ million, representing an increase of $\$ 3.0$ million, or 14\%, when compared to fiscal 1995. This increase was principally due to the acquisition of Piper Impact in August 1996. Results for 1996 were also affected by higher volumes and lower conversion costs. These positive factors were mostly offset by lower price spreads and higher accruals to the allowance for doubtful accounts in 1996 compared to 1995. Recently, an aluminum products customer discontinued purchases of a particular product line. Although the Company expects to be able to replace most of this lost business, the impact on operating income is expected to be approximately $\$ 2$ million to $\$ 3$ million, if none of the lost sales volume can be replaced.

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES - Selling, general and administrative expenses increased in fiscal 1996 by $\$ 10.2$ million, or $22 \%$, as compared to fiscal 1995. This increase is principally due to higher accruals to the allowance for doubtful accounts in the hot rolled steel bar and the aluminum products businesses.

INTEREST EXPENSE AND CAPITALIZED INTEREST - Interest expense increased by $\$ 1.2$ million as compared to fiscal 1995 primarily due to increased long-term debt related to the Piper Impact acquisition in the fourth quarter of fiscal 1996. Through the first three quarters of fiscal 1996, interest expense was comparable to the same periods of 1995. Increased interest related to the Company's $\$ 84.9$ million of $6.88 \%$ Convertible Subordinated Debentures that were issued in June 1995 in exchange for the Company's outstanding preferred stock was offset by the early extinguishment of a portion of the Company's senior debt in the first quarter of fiscal 1995 and the early extinguishment of the remaining senior debt in the first fiscal quarter of 1996. Capitalized interest decreased by $\$ 1.3$ million in 1996 compared to 1995 primarily resulting from the completion in March 1995 of Phase II of the Company's MacSteel Ultra Clean Steel Program. Capitalized interest is expected to increase in fiscal 1997 as capital spending on Phase III of the MacSteel expansion project continues.

OTHER - Included in "Other, net" for fiscal 1996, was a $\$ 2.3$ million pretax gain which represents the final recovery of a business interruption claim related to a fire at the Company's Lincolnshire, Illinois facility that occurred in 1993. Also included in "Other, net" in 1996 was a $\$ 1.5$ million loss resulting from abandonment of idle assets. Included in "Other, net" for fiscal 1995 was a $\$ 1.1$ million pretax gain related to a life insurance policy on a deceased former officer. In addition, "Other, net" included investment income of $\$ 1.6$ million for fiscal 1996 as compared to $\$ 783$ thousand for fiscal 1995. In fiscal 1997, the amortization of the goodwill related to the Piper Impact acquisition will increase by approximately $\$ 1.6$ million.

EXTRAORDINARY CHARGE - Included in fiscal 1996 was an extraordinary charge of $\$ 2.5$ million compared to $\$ 2.0$ million in 1995 relating to early extinguishment of debt.

NET INCOME - Net income attributable to common shareholders for fiscal 1996 was $\$ 30.4$ million, compared to $\$ 27.9$ million for fiscal 1995. Preferred dividends reduced net income attributable to common shareholders by $\$ 4.0$ million for fiscal 1995. There were no preferred dividends in 1996.

NET SALES - Net sales for fiscal 1995 were $\$ 891.2$ million, representing an increase of $\$ 191.9$ million, or $27 \%$, when compared to fiscal 1994. This increase was due to significantly higher volume in the aluminum products business, additional volume from increased production capacity as compared to last year, improvements in the economy, increases in demand and higher average selling prices.

Net sales for fiscal 1995 from the Company's hot rolled steel bar business were $\$ 282.1$ million, representing an increase of $\$ 36.9$ million, or $15 \%$, when compared to fiscal 1994. This increase was primarily attributable to increased volume and a $9 \%$ increase in average selling prices. Volume increases reflected the additional capacity provided from the capital expenditures completed in March 1995. The hot rolled steel bar business also benefited from strength in the durable goods markets.

Net sales for fiscal 1995 from the Company's cold finished steel bar business were $\$ 170.7$ million, representing an increase of $\$ 10.7$ million, or $7 \%$, when compared to fiscal 1994. The increase was primarily attributable to an increase in average selling price of $7 \%$. Even though volume for the last half of the fiscal year was down $9 \%$ as compared to the last half of fiscal 1994, the strength experienced during the first half of the year, combined with the increase in average selling prices, resulted in the year-to-year net sales improvement.

Net sales from the Company's steel tube business for fiscal 1995 were $\$ 119.9$ million, representing an increase of $\$ 13.8$ million, or $13 \%$, when compared to fiscal 1994. This increase in sales resulted principally from a $16 \%$ increase in volume. The Company's steel tube business was adversely affected in fiscal 1994, and to a lesser degree in fiscal 1995, by downward pricing pressure from imports on certain products and a general weakness in this segment's primary markets, which include power generation and the petrochemical and refining industries. In June 1994, the Company filed petitions alleging that imports of carbon and alloy seamless pipe up to 4.5 inches in diameter from four countries were being dumped or subsidized. In August 1994, the International Trade Commission (the "ITC") made an affirmative preliminary determination that imports of small-diameter pipe from these countries were causing injury to the U.S. industry and in January 1995, dumping bonds were imposed on imports of these products by these countries. In July 1995, the ITC made a final determination that imports of small diameter seamless carbon and alloy standard, line and pressure pipe from four countries had caused injury to the U.S. industry. This final ruling results in the ongoing enforcement of countervailing duties imposed by the U.S. Department of Commerce. The Company believes that the volume improvement in fiscal 1995 over fiscal 1994 was due, in part, to the favorable ruling.

Net sales from the Company's aluminum products business for fiscal 1995 were $\$ 331.6$ million, representing an increase of $\$ 130.6$ million, or $65 \%$, when compared to fiscal 1994. This increase was attributable to an increase in volume of $49 \%$ due to improved demand and market share and an increase in average selling price of 11\%. First and second quarter results for fiscal 1994 were adversely affected by the fire at the Company's Lincolnshire plant. Results for fiscal 1995 were affected by aluminum price increases, which generally increased by more than the Company's average selling price because of a change in product mix.

OPERATING INCOME - Consolidated operating income for fiscal 1995 was $\$ 66.5$ million, representing an increase of $\$ 25.6$ million, or $63 \%$, when compared to fiscal 1994. This increase was principally due to higher net sales.

Operating income from the Company's hot rolled steel bar business for fiscal 1995 was $\$ 41.6$ million, representing an increase of $\$ 10.3$ million, or $33 \%$, when compared to fiscal 1994. This increase was principally due to higher volume, higher net sales and improved margins.

Operating income from the Company's cold finished steel bar business for fiscal 1995 was $\$ 11.5$ million, representing an increase of $\$ 2.8$ million, or $33 \%$, when compared to fiscal 1994. This increase was principally due to higher net sales and improved margins.

Operating income from the Company's steel tube business for fiscal 1995 was $\$ 8.7$ million, representing an increase of $\$ 2.2$ million, or $34 \%$, when compared to fiscal 1994. This increase was principally due to higher volume and net sales.

Operating income from the Company's aluminum products business for fiscal 1995 was $\$ 22.1$ million, representing an increase of $\$ 12.5$ million, or $130 \%$, when compared to fiscal 1994. This increase was principally due to substantially higher volume and net sales.

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES - Selling, general and administrative expenses increased in fiscal 1995 by $\$ 1.7$ million, or $4 \%$, as compared to fiscal 1994. As a percentage of net sales, however, selling, general and administrative expenses were $5.2 \%$ in fiscal 1995 as compared to $6.4 \%$ in fiscal 1994.

INTEREST EXPENSE AND CAPITALIZED INTEREST - Interest expense decreased by $\$ 3.2$ million as compared to fiscal 1994 primarily as a result of the early extinguishment of a portion of the Company's senior debt late in the first fiscal quarter of 1995. Interest expense is expected to increase in fiscal 1996 following the Company's exchange of its $6.88 \%$ Cumulative Convertible Exchangeable Preferred Stock for $\$ 84.9$ million principal amount of its 6.88\% Convertible Subordinated Debentures due June 30, 2007 on June 30, 1995. Capitalized interest decreased by $\$ 1.9$ million as compared to fiscal 1994 due to the completion in early fiscal 1995 of the construction at the Company's hot rolled steel bar business facilities.

OTHER - Included in "Other, net" for fiscal 1995, was a $\$ 1.1$ million pretax gain related to a life insurance policy on a deceased former officer. Included in "Other, net" for fiscal 1994 was a $\$ 1.7$ million pretax charge related to certain financing contracts, partially offset by $\$ 1.0$ million of income relating to partial reimbursement of a business interruption loss for the fire that occurred at the Company's Lincolnshire facility in August 1993. In addition, "Other, net" included investment income of $\$ 783$ thousand for fiscal 1995, compared to $\$ 3.0$ million for fiscal 1994. The decrease in investment income was due to a decline in cash and short-term investments as such funds were used to reduce debt, and losses on sales of short-term investments.

EXTRAORDINARY CHARGE - Included in fiscal 1995 was an extraordinary charge of $\$ 2.0$ million relating to early extinguishment of debt.

NET INCOME - Net income attributable to common shareholders for fiscal 1995 was $\$ 27.9$ million, compared to $\$ 12.9$ million for fiscal 1994. Preferred dividends reduced net income attributable to common shareholders by $\$ 4.0$ million for fiscal 1995, as compared to $\$ 5.9$ million for fiscal 1994. The improvement in net income attributable to common shareholders was primarily attributable to improved operating income.

## LIQUIDITY AND CAPITAL RESOURCES

The Company's principal sources of funds are cash on hand, cash flow from operations, and borrowings under an unsecured $\$ 250$ million Revolving Credit and Term Loan Agreement ("Bank Agreement"). The Bank Agreement replaced the Company's former $\$ 75$ million Revolving Credit and Letter of Credit Agreement (the "Old Bank Agreement"), effective July 23, 1996. The Bank Agreement consists of a revolving line of credit ("Revolver") and up to two term loans not to exceed $\$ 100$ million in the aggregate and repayable at a date selected by the Company to be no later than July 23, 2004. Any term loan elections reduce the amount available under the Revolver. The Bank Agreement expires July 23, 2001, and provides for up to $\$ 25$ million for standby letters of credit, limited to the undrawn amount available under the Revolver. All borrowings under the Revolver bear interest, at the option of the Company, at either (i) the prime rate or the federal funds rate plus one percent, whichever is higher, or (ii) a Eurodollar based rate. In the fourth quarter of fiscal 1996, the Company entered into interest rate swap agreements, which effectively converted $\$ 100$ million of its variable rate debt under the Bank Agreement, to fixed rate. Under these agreements, payments are made based on a fixed rate ( $\$ 50$ million at $7.025 \%$, and $\$ 50$ million at $6.755 \%$ ) and received on a LIBOR based variable rate $(5.53125 \%$ at October 31,1996$)$. Differentials to be paid or received under the agreements are recognized as interest expense. The agreements mature in 2003. The Bank Agreement contains customary affirmative and negative covenants and requirements to maintain a minimum consolidated tangible net worth, as defined. The Bank Agreement limits the payment of dividends and certain restricted investments. At October 31, 1996, retained earnings of $\$ 35,571,000$ were available for dividends. Under the Bank Agreement, at October 31, 1996, there were $\$ 160.0$ million of outstanding Revolver borrowings. Additional borrowings under the Bank Agreement were used to fund the acquisition of Piper Impact.

In December 1995, the Company acquired all of its outstanding 10.77\% Senior Notes for a purchase price equal to $107.5 \%$ of the principal amount plus accrued interest. The acquisition and related expenses resulted in an after-tax extraordinary charge of approximately $\$ 2.5$ million in the first quarter of 1996. The acquisition was funded with cash and additional borrowings under the Old Bank Agreement.

On June 30, 1995, the Company exercised its right under the terms of its Cumulative Convertible Exchangeable Preferred Stock to exchange such stock for an aggregate of $\$ 84,920,000$ of its $6.88 \%$ Convertible Subordinated Debentures due June 30, 2007 ("Debentures"). Interest is payable semi-annually on June 30 and December 31 of each year. The Debentures are subject to mandatory annual sinking fund payments sufficient to redeem $25 \%$ of the Debentures issued on each of June 30, 2005 and June 30, 2006, to retire a total of $50 \%$ of the Debentures before maturity. The Debentures are subordinate to all senior indebtedness of the Company and are convertible, at the option of the holder, into shares of the Company's common stock at a conversion price of $\$ 31.50$ per share.

On August 9, 1996, the Company completed the acquisition of substantially all of the assets of Piper Impact. Piper Impact's assets, net of various liabilities, were acquired for approximately $\$ 130$ million in cash, cash equivalents, and notes. This acquisition was financed with existing cash and bank borrowings. Subsequent to the acquisition, the Company's Board of Directors approved additional capital expenditures at Piper Impact totaling approximately $\$ 55$ million. These expenditures are expected to provide the capacity needed to supply major new customer programs phasing in over the next two years.

At October 31, 1996, the Company had commitments of $\$ 34$ million for the purchase or construction of capital assets, primarily relating to the Company's continued expansion at MacSteel and the expansion at Piper Impact. The capital project at MacSteel also includes significant upgrades to pollution control systems to ensure compliance with new EPA standards under the Clean Air Act. The MacSteel expansion is expected to cost approximately $\$ 60$ million and is expected to be completed during fiscal year 1998. The Company plans to fund this capital investment through cash flow from operations and, if necessary, additional borrowings.

The Company believes that it has sufficient funds and adequate financial sources available to meet its anticipated liquidity needs. The Company also believes that cash flow from operations, cash balances and available borrowings will be sufficient for the foreseeable future to finance anticipated working capital requirements, capital expenditures, debt service requirements, environmental expenditures and dividends.

## Operating Activities

Cash provided by operating activities during fiscal 1996 was $\$ 64.1$ million. This represents a decrease of \$3.0 million, or 4\%, as compared to fiscal 1995. Increased working capital requirements related to inventories and accounts payable were mostly offset by decreased accounts receivable.

## Investment Activities

Net cash used by investment activities in fiscal 1996 was $\$ 172.6$ million as compared to net cash provided of $\$ 25.6$ million in fiscal 1995. The decrease in cash provided by investment activities was principally due to the acquisition of the assets of Piper Impact, higher capital spending, and decreases in short-term investments in 1995. The Company estimates that fiscal 1997 capital expenditures will approximate $\$ 70$ to $\$ 80$ million.

Financing Activities
Net cash provided by financing activities for fiscal 1996 was $\$ 99.3$ million, principally consisting of $\$ 160$ million in bank borrowings offset by $\$ 44.7$ million related to the early extinguishment of the Senior Notes, $\$ 10.0$ million in repayments of notes payable and $\$ 8.1$ million in common dividends.

The Company uses futures and option contracts to hedge a portion of its exposure to price fluctuations of aluminum. The exposure is related to the Company's backlog of aluminum sales orders with committed prices as well as future aluminum sales for which a sales price increase would lag a raw material cost increase. Firm price commitments do not extend beyond December, 1996. Hedging gains and losses are included in "Cost of sales" in the income statement concurrently with the hedged sales. Unrealized gains and losses related to open contracts are not reflected in the consolidated statements of income.

EFFECTS OF INFLATION
Inflation has not had a significant effect on earnings and other financial statement items.

## PRIVATE SECURITIES LITIGATION REFORM ACT

Certain forward looking information contained herein is being provided in accordance with the provisions of the Private Securities Litigation Reform Act Such information is subject to certain assumptions and beliefs based on current information known to the Company and is subject to factors that could result in actual results differing materially from those anticipated in the forward looking statements contained in this report. Such factors include domestic and international economic activity, prevailing prices of steel and aluminum scrap and other raw material costs, interest rates, the continuation of countervailing import duties on certain of the Company's competitors, construction delays, market conditions for the Company's customers, any material changes in purchases by the principal customers of AMSCO and Piper Impact, environmental regulations and changes in estimates of costs for known environmental remediation projects and situations, world-wide political stability and economic growth, the Company's successful implementation of its internal operating plans, performance issues with key customers, suppliers and subcontractors, and regulatory changes and legal proceedings. Accordingly, there can be no assurance that the forward-looking statements contained herein will occur or that objectives will be achieved.

NEW ACCOUNTING PRONOUNCEMENTS
During 1995, the FASB issued SFAS No. 123, "Accounting for Stock-Based Compensation". This new standard encourages, but does not require, companies to recognize compensation expense for grants of stock, stock options, and other equity instruments based on the fair-value method of accounting. The Company is required to adopt SFAS No. 123 for its fiscal year 1997. The Company expects to furnish the pro-forma disclosure required under SFAS No. 123, if material, but plans to elect to continue to follow the accounting provisions of Accounting Principles Board Opinion No. 25.

## INDEPENDENT AUDITORS' REPORT

Board of Directors and Stockholders
Quanex Corporation
Houston, Texas
We have audited the accompanying consolidated balance sheets of Quanex Corporation and subsidiaries as of October 31, 1996 and 1995, and the related consolidated statements of income, stockholders' equity and cash flows for each of the three years in the period ended October 31, 1996. Our audits also included the financial statement schedule listed in the index on page 57. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Quanex Corporation and subsidiaries as of October 31, 1996 and 1995, and the results of their operations and their cash flows for each of the three years in the period ended October 31, 1996 in conformity with generally accepted accounting principles. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly in all material respects the information set forth therein.
/s/ DELOITTE \& TOUCHE LLP
Deloitte \& Touche LLP
Houston, Texas
November 22, 1996

The accompanying consolidated financial statements of Quanex Corporation and subsidiaries were prepared by management, which is responsible for their integrity and objectivity. The statements were prepared in accordance with generally accepted accounting principles and include amounts that are based on management's best judgments and estimates.

Quanex's system of internal controls is designed to provide reasonable assurance, at justifiable cost, as to the reliability of financial records and reporting and the protection of assets. The system of controls provides for appropriate division of responsibility and the application of policies and procedures that are consistent with high standards of accounting and administration. Internal controls are monitored through recurring internal audit programs and are updated as our businesses and business conditions change.

The Audit Committee, composed solely of outside directors, determines that management is fulfilling its financial responsibilities by meeting periodically with management, Deloitte \& Touche LLP, and Quanex's internal auditors, to review internal accounting control and financial reporting matters. The internal and independent auditors have free and complete access to the Audit Committee.

We believe Quanex's system of internal controls, combined with the activities of the internal and independent auditors and the Audit Committee, provides reasonable assurance of the integrity of our financial reporting.

## /s/ Vernon E. Oechsle

## Vernon E. Oechsle

President and
Chief Executive Officer
/s/ Wayne M. Rose

## Wayne M. Rose

Vice President and Chief Financial Officer


See notes to consolidated financial statements.

| Years ended October 31, | 1996 | 1995 | 1994 |
| :---: | :---: | :---: | :---: |
|  | (In thousands, except per share amounts) |  |  |
| Net sales | \$ 895,710 | \$ 891,195 | \$ 699,314 |
| Costs and expenses: |  |  |  |
| Cost of sales. . | 772,371 | 778,067 | 613,553 |
| Selling, general and administrative. | 56,798 | 46,647 | 44,898 |
| Operating income. . . . . . . . . . . . . . . . . . 64 66,541 66,481 40,863Other income (expense) |  |  |  |
|  |  |  |  |
| Interest expense . . | $(11,929)$ | $(10,742)$ | $(13,944)$ |
| Capitalized interest | 569 | 1,872 | 3,766 |
| Other, net | 1,526 | 769 | 1,818 |
| Income before income taxes and extraordinary charge . . . . . . . . . . . . . . . 56,707 58,380 32,503 |  |  |  |
| Income tax expense. | $(23,817)$ | $(24,520)$ | $(13,651)$ |
| Income before extraordinary charge. . . . . . . . .Extraordinary charge - early extinguishment |  |  |  |
|  |  |  |  |
| Net income. | 30,368 | 31,839 | 18,852 |
| Preferred dividends | - | $(3,957)$ | $(5,934)$ |
| Net income attributable to |  |  |  |
| Earnings per common share: |  |  |  |
| Primary before extraordinary charge. | \$ 2.41 | \$ 2.20 | \$ . 96 |
| Extraordinary charge | (0.19) | (0.15) | - |
| Total primary earnings . . . . . . . . . . . . . . | \$ 2.22 | \$ 2.05 | \$ . 96 |
| Fully diluted before extraordinary charge. | \$ 2.20 | \$ 2.20 | \$ . 96 |
| Extraordinary charge . | (0.15) | (0.15) | - |
| Total assuming full dilution | \$ 2.05 | \$ 2.05 | \$ . 96 |
| Weighted average number of shares outstanding |  |  |  |
| Primary. . . . . . . | 13,658 | 13,580 | 13,496 |
| Assuming full dilution | 16,585 | 13,580 | 13,496 |

See notes to consolidated financial statements.


See notes to consolidated financial statements.


See notes to consolidated financial statements.

## 1. SIGNIFICANT ACCOUNTING POLICIES

## PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include the accounts of Quanex Corporation and its subsidiaries (the "Company"), all of which are wholly owned. All significant intercompany balances and transactions have been eliminated in consolidation.

SCOPE OF OPERATIONS

The Company operates primarily in four industry segments: the manufacturing of hot rolled steel bars, cold finished steel bars, steel tubes, and aluminum products. The Company's operations are conducted in the United States. For the years ended October 31, 1996, 1995 and 1994, no single customer accounted for more than $10 \%$ of the Company's revenue. (See Note 10)

STATEMENTS OF CASH FLOWS

The Company generally considers all highly liquid debt instruments purchased with a maturity of three months or less to be cash equivalents. Similar investments with original maturities beyond three months are considered short-term investments. For fiscal years 1996, 1995 and 1994 cash paid for income taxes was $\$ 19,551,000, \$ 17,572,000$, and $\$ 10,144,000$, respectively. These amounts are before refunds of \$204,000, \$47,000, and \$294,000, respectively. Cash paid for interest for fiscal 1996, 1995 and 1994 was \$12,084,000, $\$ 10,324,000$, and $\$ 13,990,000$, respectively. Cash payments related to the facilities realignment charge recorded in fiscal 1992 were $\$ 625,000$ for fiscal 1994. Non-cash investing and financing activities in fiscal 1995 included the exchange of $\$ 84,920,000$ of the Company's Cumulative Convertible Exchangeable Preferred Stock for the Company's $6.88 \%$ Convertible Subordinated Debentures due June 30, 2007, and the conversion of $\$ 1,330,000$ of the Company's Cumulative Convertible Exchangeable Preferred Stock to the Company's common stock. (See Note 2 regarding the acquisition of Piper Impact, Inc.)

## INVENTORIES

Inventories are valued at the lower of cost or market. The accounting methods used in valuing the Company's inventories are described in Note 4.

LONG-LIVED ASSETS

Goodwill represents the excess of the purchase price over the fair value of acquired companies and is being amortized on a straight line basis over forty years for the goodwill resulting from the acquisition of Nichols Homeshield in 1989, and over twenty-five years for the goodwill resulting from the acquisition of Piper Impact, Inc. in 1996 (See Note 2). At October 31, 1996 and 1995, accumulated amortization was $\$ 7,297,000$ and $\$ 5,807,000$, respectively The Company evaluates any possible impairment of goodwill using estimates of undiscounted future cash flows.

## 1. SIGNIFICANT ACCOUNTING POLICIES - CONTINUED

LONG-LIVED ASSETS - CONTINUED

Property, plant and equipment is stated at cost and is depreciated using the straight-line method over the estimated useful lives of the assets. The estimated useful lives of certain categories are as follows:


During 1995, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards ("SFAS") No. 121, "Accounting for the Impairment of Long-Lived Assets and Long-Lived Assets to Be Disposed Of". The statement establishes accounting standards related to the impairment of long-lived assets, such as property, plant, equipment and intangibles. The Company will adopt Statement No. 121 in fiscal 1997 and does not expect a significant impact on its financial position or results of operations.

## HEDGING

The Company uses futures and option contracts to hedge a portion of its exposure to price fluctuations of aluminum. Hedging gains and losses are recognized concurrently with the related sales transactions. The Company enters into interest rate agreements which effectively exchange variable interest rate debt for fixed interest rate debt. The agreements are used to reduce the exposure to increasing interest rates. The Company enters into these agreements with major financial institutions. The Company does not use derivative financial instruments for trading or speculative purposes. (See Note 14)

## EARNINGS PER SHARE DATA

Primary earnings per share is computed by deducting preferred dividends from net income in order to determine net income attributable to common stockholders. This amount is then divided by the weighted average number of common shares outstanding and common stock equivalents.

Fully diluted earnings per-share amounts assume conversion of the Company's 6.88\% Convertible Subordinated Debentures, the elimination of the related interest and amortization of issuance costs, net of tax, and the issuance of common stock for all other potentially dilutive common stock equivalents outstanding.

## 1. SIGNIFICANT ACCOUNTING POLICIES - CONTINUED

USE OF ESTIMATES
The preparation of the financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

## RECLASSIFICATION

Certain amounts for prior periods have been reclassified in the accompanying consolidated financial statements to conform to 1996 presentation.

## 2. ACQUISITION OF PIPER IMPACT, INC

On August 9, 1996, the Company acquired the assets, net of various liabilities, of Piper Impact, Inc. ("Piper Impact"). Piper Impact is a manufacturer of custom-designed, impact-extruded aluminum and steel parts for the transportation, electronics and defense markets, with production facilities in New Albany, Mississippi and Park City, Utah.

Piper Impact's net assets were acquired for approximately $\$ 130$ million in cash, cash equivalents, and notes. The acquisition was accounted for using the purchase method of accounting. The purchase price was allocated to the assets and liabilities of Piper Impact based on their estimated fair values. The goodwill associated with the Piper Impact acquisition approximated $\$ 54$ million, which is being amortized on a straight-line basis over twenty-five years. To finance the acquisition, the Company entered into an unsecured revolving credit/term loan facility which provides for the borrowing of up to $\$ 250$ million. (See Note 7)

Liabilities assumed included an estimated $\$ 20$ million related to costs for further investigation and specified environmental remediation. These cost estimates include charges for additional studies, remediation, renovations to affected facilities and equipment, and other compliance expenditures. The estimated range of costs is $\$ 15$ million to $\$ 25$ million of which the accrual represents management's best estimate of total costs expected to be incurred. Actual expenditures could differ from current estimates as additional studies are completed, requiring revisions to the remediation and restoration plan.

The unaudited pro-forma consolidated results of operations of the Company are shown below as if the acquisition had occurred at the beginning of the fiscal periods indicated. These results are not necessarily indicative of the results which would actually have occurred if the purchase had taken place at the beginning of the periods, nor are they necessarily indicative of future results.

## 2. ACQUISITION OF PIPER IMPACT, INC.- CONTINUED

## PRO FORMA

(In thousands, except per share amounts)



## 3. INCOME TAXES

Effective November 1, 1993, the Company adopted FASB Statement No. 109,
"Accounting for Income Taxes". This statement requires the use of the asset and liability approach for financial accounting and reporting for income taxes Adoption of this statement did not have a material effect on the Company's financial position or results of operations. Prior year financial statements have not been restated.

Income tax expense (benefit) consists of the following:

| Years Ended October 31, |  |  |  |
| :---: | :---: | :---: | :---: |
| 1996 | 1995 | 1994 |  |

(In thousands)

| Current: |  |  |  |
| :---: | :---: | :---: | :---: |
| Federal. | \$ 18,374 | \$ 16,302 | \$ 9,738 |
| State. | 4,204 | 1,940 | 1,359 |
|  | 22,578 | 18,242 | 11,097 |
| Deferred | 1,239 | 6,278 | 2,554 |
|  | 23,817 | 24,520 | 13,651 |
| Reduction of taxes from extinguishment of debt | $(1,826)$ | $(1,463)$ | - |
|  | \$ 21,991 | \$ 23,057 | \$ 13, 651 |

## 3. INCOME TAXES - CONTINUED

Deferred income taxes reflect the net 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 the Company's net deferred tax liability are as follows:

| October 31, |  |
| :---: | :---: |
| 1996 | 1995 |



Income tax expense differs from the amount computed by applying the statutory federal income tax rate to earnings before income taxes for the following reasons:


## 4. INVENTORIES

Inventories consist of the following:

| October 31, |  |
| :---: | :---: |
| 1996 | 1995 |

(In thousands)
Raw materials. . . . . . . . . . . . . . . . . . . . . . . . .
Finished goods and work in process . . . . . . . . . . . . . .
Other. . . . . . . . . . . . . . . . . . . . . . . . . . . .
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . .


With respect to inventories valued using the LIFO method, replacement cost exceeded the LIFO value by approximately $\$ 15,000,000$ and $\$ 24,000,000$ at October 31, 1996 and 1995, respectively.
5. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consists of the following:
 amounting to approximately \$34 million at October 31, 1996.
6. ACCRUED EXPENSES

Accrued expenses consist of the following:

| October 31, |  |
| :---: | :---: |
| 1996 | 1995 |
| (In thousands) |  |
| \$ 2,804 | \$ 2,703 |
| 2,925 | 3, 080 |
| 28,467 | 23,479 |
| 2,549 | 3,346 |
| 13,835 | 9,479 |
| ------ | ---- |
| \$50,580 | \$42, 087 |
| ======= | ======= |

7. LONG-TERM DEBT AND FINANCING ARRANGEMENTS

Long-term debt consists of the following:
October 31 ,
Revolving credit and term loan facility . . . . . . . . . . . . .

## 7. LONG-TERM DEBT AND FINANCING ARRANGEMENTS - CONTINUED

On July 23, 1996, the Company replaced its $\$ 75$ million Revolving Credit and Letter of Credit Agreement with an unsecured $\$ 250$ million Revolving Credit and Term Loan Agreement ("Bank Agreement"). The Bank Agreement consists of a revolving line of credit ("Revolver") and up to two term loans not to exceed $\$ 100$ million in the aggregate and repayable at a time selected by the company to be no later than July 23, 2004. Any term loan elections reduce the amount available under the Revolver. The Bank Agreement expires July 23, 2001, and provides for up to $\$ 25$ million for standby letters of credit, limited to the undrawn amount available under the Revolver. All borrowings under the Revolver bear interest, at the option of the Company, at either (a) the prime rate or the federal funds rate plus one percent, whichever is higher, or (b) a Eurodollar based rate. At October 31, 1996, the Company had $\$ 160$ million outstanding under the Revolver and no term loans outstanding. The weighted average interest rates on borrowings under the Revolver and the old Revolving Credit Agreement were 6.3\% and 7.1\% in 1996 and 1995, respectively. As of October 31, 1996, the Company was in compliance with all Bank Agreement covenants. Under the Company's most restrictive loan covenants, retained earnings of $\$ 35,571,000$ at October 31, 1996 were available for dividends.

On June 30, 1995, the Company exercised its right under the terms of its Cumulative Convertible Exchangeable Preferred Stock to exchange such stock for an aggregate of $\$ 84,920,000$ of its $6.88 \%$ Convertible Subordinated Debentures due June 30, 2007 ("Debentures"). Interest is payable semi-annually on June 30 and December 31 of each year. The Debentures are subject to mandatory annual sinking fund payments sufficient to redeem $25 \%$ of the Debentures issued on each of June 30, 2005 and June 30, 2006, to retire a total of $50 \%$ of the Debentures before maturity. The Debentures are subordinate to all senior indebtedness of the Company and are convertible, at the option of the holder, into shares of the Company's common stock at a conversion price of $\$ 31.50$ per share.

At October 31, 1994, the Company had $\$ 125$ million outstanding in Senior Notes. The Senior Notes paid interest at $10.77 \%$ per annum. In December 1994, the Company acquired $\$ 59.5$ million principal amount of the Senior Notes for a purchase price equal to $105 \%$ of the principal amount plus accrued interest. The Company recorded an extraordinary charge of $\$ 2.0$ million ( $\$ 3.5$ million before tax) in the first quarter of 1995 related to the call premium and write-off of deferred debt issuance costs for the Senior Notes that were repurchased. In August 1995, the Company made a required annual repayment of $\$ 20.8$ million principal amount. In December 1995, the Company acquired the remaining $\$ 44.7$ million principal amount of the Senior Notes for a purchase price equal to $107.5 \%$ of the principal amount plus accrued interest. The second acquisition and related expenses resulted in an after-tax extraordinary charge of approximately $\$ 2.5$ million ( $\$ 4.3$ million before tax) in the first quarter of 1996.

Aggregate maturities of long-term debt at October 31, 1996, are as follows (in thousands):


## 8. PENSION PLANS AND RETIREMENT BENEFITS

The Company has retirement plans covering substantially all employees. The plans provide for defined benefits. The plans pay benefits to employees at retirement using formulas based upon years of service and compensation rates near retirement. The Company's funding policy is generally to make the minimum annual contributions required by applicable regulations.

The plans' funded status was as follows:

| October 31, | Assets exceed accumulated benefit obligation |  | Accumulated benefit obligation exceeds assets |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1996 | 1995 | 1996 | 1995 |
|  | (In thousands) |  | (In thousands) |  |
| Assets available for benefits. | \$ 28,551 | \$ 26,013 | \$ 17,539 | \$ 12,823 |
| Projected benefit obligation |  |  |  |  |
| Vested | $(25,930)$ | $(21,630)$ | $(23,830)$ | $(18,939)$ |
| Nonvested. | (447) | (371) | $(4,691)$ | $(5,185)$ |
| Accumulated benefit obligation | $(26,377)$ | $(22,001)$ | $(28,521)$ | $(24,124)$ |
| Effect of future salary increases. | $(11,095)$ | $(11,024)$ | (334) | (299) |
| Total projected benefit obligation | $(37,472)$ | $(33,025)$ | $(28,855)$ | $(24,423)$ |
| Assets less than projected benefit obligation.. . . . | \$ (8,921) | \$ (7,012) | \$(11,316) | \$(11, 600) |
| Consisting of: |  |  |  |  |
| Amounts to be offset against future pension costs: |  |  |  |  |
| Assets in excess of obligation at adoption. | \$ 876 | \$ 979 | \$ 177 | \$ 233 |
| Obligation (increase) decrease due to plan amendments | 294 | 350 | $(5,837)$ | $(4,621)$ |
| Actuarial gains (losses). . | (977) | (235) | $(5,117)$ | $(5,046)$ |
| Minimum liability adjustment. . . . . |  | - | 10,444 | 9,087 |
| Amounts recognized in consolidated balance sheets: |  |  |  |  |
| Deferred pension credit . | $(7,657)$ | $(7,489)$ | $(9,636)$ | $(9,167)$ |
| Accrued contribution to pension funds | $(1,457)$ | (617) | $(1,347)$ | $(2,086)$ |
|  | \$ (8,921) | \$ (7, 012) | \$(11,316) | \$(11, 600) |

In accordance with the provisions of Statement of Financial Accounting Standards No. 87, the Company recorded additional minimum pension liabilities as of October 31, 1996 and 1995, representing the excess of the accumulated benefit obligations over the fair value of plan assets and accrued pension liabilities. The Company recorded additional pension liabilities of $\$ 10,444,000$ and $\$ 9,087,000$; intangible assets of $\$ 5,837,000$ and $\$ 4,607,000$; and stockholders' equity reductions, net of income taxes, of $\$ 2,811,000$ and $\$ 2,732,000$, as of October 31, 1996 and 1995, respectively.

## 8. PENSION PLANS AND RETIREMENT BENEFITS - CONTINUED

The projected unit credit method was used to determine the actuarial present value of the accumulated benefit obligation and the projected benefit obligation. For 1996, 1995 and 1994 the discount rates were $7.5 \%, 7.5 \%$, and $8 \%$, respectively. The expected long term rate of return on assets was $10 \%$ for the three year period ending October 31, 1996. The assumed rate of increase in future compensation levels was $4.5 \%$ in 1996 and 1995, and $5 \%$ in 1994. The plans invest primarily in marketable equity and debt securities.

Net pension costs for defined benefit plans were as follows:


The Company has various defined contribution plans in effect for certain eligible employees. The Company makes contributions to the plans subject to certain limitations outlined in the plans. Contributions to these plans were approximately $\$ 2,940,000, \$ 2,767,000$, and $\$ 2,478,000$ during fiscal 1996, 1995, and 1994, respectively.

The Company has a Supplemental Benefit Plan covering certain key officers of the Company. Earned vested benefits under the Supplemental Benefit Plan were approximately \$2,959,000, \$4,107,000, and \$2,982,000 at October 31, 1996, 1995 and 1994, respectively. These benefits are funded with life insurance policies on the officers purchased by the Company.

## 9. POSTRETIREMENT BENEFITS OTHER THAN PENSIONS

The Company provides certain healthcare and life insurance benefits for eligible retired employees. Employees may become eligible for those benefits if they reach normal retirement age while working for the Company. The Company continues to fund benefit costs on a pay-as-you-go basis; and, for fiscal year 1996, the Company made benefit payments totaling $\$ 2,474,000$, compared to $\$ 2,547,000$ and $\$ 1,892,000$ in fiscal 1995 and 1994, respectively.

## 9. POSTRETIREMENT BENEFITS OTHER THAN PENSIONS - CONTINUED

The following table sets forth the funded status of the Company's projected postretirement benefits other than pensions, reconciled with amounts recognized in the Company's consolidated balance sheets at:

|  | October 31, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1996 |  | 1995 |  |
|  | (In thousands) |  |  |  |
| Accumulated postretirement benefit obligation: |  |  |  |  |
| Retirees. . |  | $(33,541)$ |  | $(35,021)$ |
| Fully eligible active plan participants |  | $(7,989)$ |  | $(7,764)$ |
| Other active plan participants. . . . . . . . . . . . |  | $(16,510)$ |  | $(15,874)$ |
|  |  | $(58,040)$ |  | $(58,659)$ |
| Plan assets at fair value |  | - |  | - |
| Accumulated postretirement benefit obligation |  |  |  |  |
| in excess of plan assets. . . . . . . . |  | $(58,040)$ |  | $(58,659)$ |
| Unrecognized prior service cost . . . . . . . . . . . . . |  | $(2,406)$ |  | $(2,941)$ |
| Unrecognized net loss from past experience different from that assumed and from changes in assumption |  | 4,818 |  | 8,415 |
| Accrued postretirement benefit cost |  | $(55,628)$ |  | $(53,185)$ |


| Years Ended October 31, |  |
| :---: | :---: |
| 1996 | 1995 |

Net periodic postretirement benefit cost:
Service cost - benefits attributed to service
during the period. . . . . . . . . . . . . . . .

The assumed healthcare cost trend rate was $9.4 \%$ in 1996 , decreasing uniformly to 5.0\% in the year 2003 and remaining level thereafter. The assumed discount rate used to measure the accumulated postretirement benefit obligation was $7.5 \%$ at October 31, 1996 and 1995.

If the healthcare cost trend rate assumptions were increased by 1\%, the accumulated postretirement benefit obligation as of October 31, 1996 would be increased by $11.3 \%$. The effect of this change on the sum of the service cost and interest cost would be an increase of 12.1\%.

## 10. INDUSTRY SEGMENT INFORMATION

Quanex is principally a specialized metals producer. The Company's operations primarily consist of four segments: hot rolled steel bars, cold finished steel bars, steel tubes and aluminum products.

(1) Includes three months of Piper Impact's operations.
2) Included in "Corporate and Other" are intersegment eliminations and corporate expenses.
(3) Intersegment sales are conducted on an arm's-length basis.

(1) Included in "Corporate and Other" are intersegment eliminations and corporate expenses.
(2) Intersegment sales are conducted on an arm's-length basis

(1) Included in "Corporate and Other" are intersegment eliminations and corporate expenses.
(2) Intersegment sales are conducted on an arm's-length basis
(3) During 1994, $\$ 4.3$ million was charged against a general facilities realignment reserve recorded in 1992 and included in "Corporate and Other". Of the $\$ 4.3$ million total charge, $\$ 2.5$ million related to the Aluminum Products segment, $\$ 900$ thousand related to the Steel Tubes segment and $\$ 900$ thousand related to write-downs of assets classified in "Corporate and Other".

## 11. PREFERRED STOCK PURCHASE RIGHTS

The Company declared a dividend in 1986 of one Preferred Stock Purchase Right (a "Right") on each outstanding share of its common stock. This action was intended to assure that all shareholders would receive fair treatment in the event of a proposed takeover of the Company. On April 26, 1989, the Company amended the Rights to provide for additional protection to shareholders and to provide the Board of Directors of the Company with needed flexibility in responding to abusive takeover tactics. Each Right, when exercisable, entitles the holder to purchase $1 / 100$ th of a share of the Company's Series A Junior Participating Preferred Stock at an exercise price of $\$ 60$. Each $1 / 100$ th of a share of Series A Junior Participating Preferred Stock will be entitled to a dividend equal to the greater of $\$ .01$ and the dividend declared on each share of common stock, and will be entitled to $1 / 100$ th of a vote, voting together with the shares of common stock. The Rights will be exercisable only if, without the Company's prior consent, a person or group of persons acquires or announces the intention to acquire $20 \%$ or more of the Company's common stock. If the Company is acquired through a merger or other business combination transaction, each Right will entitle the holder to purchase $\$ 120$ worth of the surviving company's common stock for $\$ 60$. Additionally, if someone acquires $20 \%$ or more of the Company's common stock, each Right not owned by the $20 \%$ or greater shareholder would permit the holder to purchase $\$ 120$ worth of the Company's common stock for $\$ 60$. The Rights are redeemable, at the option of the Company, at $\$ .02$ per Right at any time until ten days after someone acquires $20 \%$ or more of the common stock. The Rights expire in 1999.

As a result of the Rights distribution, 150,000 of the $1,000,000$ shares of authorized Preferred Stock were reserved for issuance as Series A Junior Participating Preferred Stock.

## 12. PREFERRED STOCK - DEPOSITARY CONVERTIBLE EXCHANGEABLE PREFERRED SHARES

During May 1992, the Company issued 3,450,000 Depositary Convertible Exchangeable Preferred Shares ("Depositary Shares"), each representing 1/10th of a share of the Company's 6.88\% Cumulative Convertible Exchangeable Preferred Stock ("Preferred Stock"). The net proceeds from the issuance was \$82.9 million. The dividend per annum and liquidation preference for each share of Preferred Stock were \$17.20 and \$250, respectively, and for each Depositary Share were \$1.72 and \$25, respectively. Dividends on the Preferred Stock and Depositary Shares were cumulative and payable quarterly, commencing September 30, 1992. The Company was prohibited from paying any dividends on Common Stock (other than in Common Stock or junior stock) unless all required preferred dividends had been paid.

The Preferred Stock was convertible at the option of the holder into shares of the Company's Common Stock at a conversion price of $\$ 31.50$ per share, subject to adjustment in certain events. The Preferred Stock was exchangeable at the option of the Company, in whole but not in part, on any dividend payment date commencing June 30, 1995 for the Company's 6.88\% Convertible Subordinated Debentures due June 30, 2007 ("6.88\% Debentures") at the rate of $\$ 250$ principal amount of $6.88 \%$ Debentures for each share of Preferred Stock and $\$ 25$ principal amount of $6.88 \%$ Debentures for each Depositary Share.
12. PREFERRED STOCK - DEPOSITARY CONVERTIBLE EXCHANGEABLE PREFERRED SHARES - CONTINUED

On June 30, 1995, the Company exercised its right under the terms of its Cumulative Convertible Exchangeable Preferred Stock to exchange such stock for an aggregate of $\$ 84,920,000$ of its $6.88 \%$ Debentures. Interest is payable semi-annually on June 30 and December 31 of each year. The Debentures are subject to mandatory annual sinking fund payments sufficient to redeem $25 \%$ of the Debentures issued on each of June 30, 2005 and June 30, 2006, to retire a total of $50 \%$ of the Debentures before maturity. The Debentures are subordinate to all senior indebtedness of the Company and are convertible, at the option of the holder, into shares of the Company's common stock at a conversion price of \$31.50 per share.

## 13. RESTRICTED STOCK AND STOCK OPTION PLANS

The Company has restricted stock and stock option plans which provide for the granting of common shares or stock options to key employees. Under the Company's restricted stock plan, common stock may be awarded to key employees. The recipient is entitled to all of the rights of a shareholder, except that during the forfeiture period the shares are nontransferable. The award vests during an eight year period based on the price of the Company's stock. Upon issuance of stock under the plan, unearned compensation equal to the market value at the date of grant is charged to stockholders' equity and subsequently amortized to expense over the restricted period. Restricted shares granted were none in 1996, none in 1995, and 22,400 in 1994. The amount charged to compensation expense was \$132,000 in 1996, \$53,000 in 1995, and \$92,000 in 1994.

Options are granted at prices determined by the Board of Directors which may not be less than the fair market value of the shares at the time the options are granted. Unless otherwise provided by the Board at the time of grant, options become exercisable in $331 / 3 \%$ increments maturing cumulatively on each of the first through third anniversaries of the date of grant and must be exercised no later than ten years from the date of grant. No options may be granted under the plans after December 1, 2002. There were 624,035, 140,151, and 435,151 shares available for granting of options at October 31, 1996, 1995, and 1994, respectively. Stock option transactions for the three years ended October 31, 1996, were as follows:


## 13. RESTRICTED STOCK AND STOCK OPTION PLANS - CONTINUED

The Company also has a stock option plan which provides for the granting of stock options to non-employee Directors to purchase up to an aggregate amount of 100,000 shares of common stock. The plan provides that each non-employee Director and each future non-employee Director as of the first anniversary of the date of his election as a Director of the Company will be granted an option to purchase 10,000 shares of common stock at a price per share of common stock equal to the fair market value of the common stock as of the date of the grant.

Options become exercisable in $331 / 3 \%$ increments maturing cumulatively on each of the first through third anniversaries of the date of the grant and must be exercised no later than 10 years from the date of grant. No options may be granted under the plan after June 22, 1997. There were 20,000, 40,000, and 40, 000 shares available for granting of options at October 31, 1996, 1995 and 1994, respectively. Stock option transactions for the three years ended October 31, 1996, were as follows:
$\left.\begin{array}{cccc} & \begin{array}{c}\text { Shares } \\ \text { Exercisable }\end{array} & \begin{array}{c}\text { Shares } \\ \text { Under } \\ \text { Option }\end{array} & \begin{array}{c}\text { Average Price } \\ \text { Per }\end{array} \\ \text { Share }\end{array}\right)$

In addition, the Company has a stock option plan which provides for the granting of stock options to non-employee Directors to purchase up to an aggregate of 210,000 shares of common stock. Each non-employee Director as of December 6, 1989, was granted an option to purchase 3,000 shares of common stock at a price per share of common stock equal to the fair market value of the common stock as of the date of grant. Also, each non-employee Director who is a director of the Company on any subsequent October 31, while the plan is in effect and shares are available for the granting of options hereunder, shall be granted on such October 31, an option to purchase 3,000 shares of common stock at a price equal to the fair market value of the common stock as of such October 31. Options become exercisable at any time commencing six months after the grant and must be exercised no later than 10 years from the date of grant. No option may be granted under the plan after December 5, 1999. There were 51,000, 72,000, and 93,000 shares available for granting of options at October 31, 1996, 1995 and 1994, respectively. Stock option transactions for the three years ended October 31, 1996, were as follows:
13. RESTRICTED STOCK AND STOCK OPTION PLANS - CONTINUED

|  | Shares Exercisable | Shares Under Option | Average Price Per Share |
| :---: | :---: | :---: | :---: |
| Balance at October 31, 1993 | 54,000 | 75,000 | \$19 |
| Granted |  | 21,000 | 25 |
| Exercised |  | $(9,000)$ | 15 |
| Cancelled |  | - | - |
| Balance at October 31, 1994 | 66,000 | 87,000 | 20 |
| Granted |  | 21,000 | 20 |
| Exercised . |  | - | - |
| Cancelled |  | - | - |
| Balance at October 31, 1995 | 87,000 | 108, 000 | \$20 |
| Granted |  | 21,000 | 29 |
| Exercised |  | $(6,000)$ | 19 |
| Cancelled |  | - | - |
| Balance at October 31, 1996 | 102,000 | 123,000 | \$22 |

On October 1, 1992, Carl E. Pfeiffer retired as the Chief Executive Officer of the Company. In connection with such retirement, the Company replaced options to purchase 60,000 shares of Common Stock at a weighted average exercise price of $\$ 15.85$ held by Mr. Pfeiffer, under the Company's employee stock option plans with new options having the same exercise prices and expiration dates. Such options are substantially similar to the options previously held by him with the exception that vesting is not contingent upon his continued employment with the Company and the options expire on various dates between October 25, 1999, and October 13, 2001, instead of one year after retirement. There were 60,000 shares exercisable at October 31, 1996, 1995, and 1994. There were no transactions related to these stock options during the years ended October 31, 1996, 1995, and 1994.

## 14. FINANCIAL INSTRUMENTS

The Company uses futures and option contracts to hedge a portion of its exposure to price fluctuations of aluminum. The exposure is related to the Company's backlog of aluminum sales orders with committed prices as well as future aluminum sales for which a sales price increase would lag a raw material cost increase. Firm price commitments do not extend beyond December, 1996. Hedging gains and losses are included in "Cost of sales" in the income statement concurrently with the hedged sales. Unrealized gains and losses related to open contracts are not reflected in the consolidated statements of income.

## 14. FINANCIAL INSTRUMENTS - CONTINUED

In the fourth quarter of fiscal 1996, the Company entered into interest rate swap agreements, which effectively converted $\$ 100$ million of its variable rate debt under the Bank Agreement, to fixed rate. Under these agreements, payments are made based on a fixed rate ( $\$ 50$ million at $7.025 \%$, and $\$ 50$ million at $6.755 \%$ ) and received on a LIBOR based variable rate (5.53125\% at 0ctober 31, 1996). Differentials to be paid or received under the agreements are recognized as interest expense. The agreements mature in 2003.

The fair values of the Company's financial assets approximate the carrying values reported on the consolidated balance sheet. The fair value of long-term debt was $\$ 256.9$ million and $\$ 129.8$ million, as of October 31, 1996 and 1995, respectively, as compared to carrying values at October 31, 1996 and 1995 of $\$ 253.5$ million and $\$ 132.9$ million, respectively.

The unrealized losses related to the interest rate swaps are $\$ 3.1$ million (none in 1995) on the total notional amount of $\$ 100$ million (none in 1995).

The fair value of long-term debt was based on the quoted market price, recent transactions, or based on rates available to the Company for instruments with similar terms and maturities. The fair value of interest rate swaps were estimated by discounting expected cash flows using quoted market interest rates.

## 15. CONTINGENCIES

The Company is subject to extensive federal, state and local environmental laws and regulations. These laws, which are constantly changing, govern the discharge of materials in the environment and may require the Company to make environmental expenditures on an on-going basis. Environmental expenditures are expensed or capitalized depending on their future economic benefit. The Company has been identified as potentially responsible for cleanup of several contaminated sites under the Federal Superfund law or similar statutes. Although in some circumstances, Superfund might be deemed to impose joint and several liability upon each responsible party at a site, the extent of the Company's allocated financial contribution to the cleanup of these sites is expected to be limited based on the number of companies participating, the volumes of waste involved, and/or the nature of the Company's alleged connection. Although the level of reasonably possible future expenditures, if any, beyond amounts already accrued for environmental purposes, including cleanup obligations, is impossible to determine with any degree of probability, it is management's opinion that, based on current knowledge and the extent of such expenditures to date, the ultimate aggregate cost of environmental remediation will not have a material adverse effect on the Company's financial condition. In connection with the acquisition of Piper Impact, Inc., liabilities assumed included an estimated $\$ 20$ million related to costs for further investigation and specified environmental remediation. (See Note 2)

QUARTERLY RESULTS OF OPERATIONS (UNAUDITED)
Selected quarterly information for the years ended October 31, 1996 and 1995 is as follows:

| Net sales | \$ | 188, 772 | \$ | 218,341 | \$ | 225,463 | \$ | 263,134 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gross profit |  | 21,696 |  | 27,317 |  | 32,354 |  | 41,972 |
| Income before extraordinary charge |  | 4,047 |  | 8,132 |  | 9,145 |  | 11,566 |
| Extraordinary charge -early extinguishment of debt .. |  | $(2,522)$ |  | - - |  | -- |  | -- |
| Net income |  | 1,525 |  | 8,132 |  | 9,145 |  | 11,566 |
| Earnings per share: Primary before extraordinary charge |  | . 30 |  | . 60 |  | . 67 |  | . 84 |
| Extraordinary charge - early extinguishment of debt .... |  | (.19) |  | -- |  | -- |  | -- |
| Primary |  | . 11 |  | . 60 |  | . 67 |  | . 84 |
| Assuming full dilution |  | . 11 |  | . 55 |  | . 61 |  | . 75 |
| 1995: |  |  |  |  |  |  |  |  |
| Net sales | \$ | 199,886 | \$ | 234,347 | \$ | 228,172 | \$ | 228,790 |
| Gross profit |  | 22,697 |  | 29,747 |  | 30, 156 |  | 30,528 |
| Income before extraordinary charge |  | 4,653 |  | 9,822 |  | 9,603 |  | 9,782 |
| Extraordinary charge - early extinguishment of debt ... |  | (2, 021) |  | -- |  | -- |  | -- |
| Net income |  | 2,632 |  | 9,822 |  | 9,603 |  | 9,782 |
| Earnings per share: |  |  |  |  |  |  |  |  |
| Primary before extraordinary charge |  | . 23 |  | . 62 |  | . 63 |  | . 72 |
| Extraordinary charge -early extinguishment of debt ... |  | (.15) |  | - - |  | -- |  | -- |
| Primary |  | . 08 |  | . 62 |  | . 63 |  | . 72 |
| Assuming full dilution |  | . 08 |  | . 60 |  | . 59 |  | . 65 |


| Description | Balance at beginning of year | Charged to costs and expenses | Write-offs | Other | Balance at end of year |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | In thousands) |  |  |

ALLOWANCE FOR DOUBTFUL ACCOUNTS:


|  | 1996 | 1995 | 1994 | 1993 | 1992 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NET SALES (millions) |  |  |  |  |  |
| January | 188.77 | 199.89 | 149.52 | 141.43 | 124.88 |
| April | 218.34 | 234.35 | 172.23 | 161.37 | 148.41 |
| July | 225.46 | 228.17 | 181.09 | 153.50 | 141.90 |
| October | 263.14 | 228.79 | 196.47 | 159.85 | 156.90 |
| Total | 895.71 | 891.20 | 699.31 | 616.15 | 572.09 |
| GROSS PROFIT (millions) |  |  |  |  |  |
| January | 21.70 | 22.70 | 14.33 | 11.64 | 12.04 |
| April | 27.32 | 29.75 | 20.38 | 16.37 | 18.38 |
| July | 32.35 | 30.15 | 23.54 | 16.92 | 15.20 |
| October | 41.97 | 30.53 | 27.51 | 20.25 | 19.69 |
| Total | 123.34 | 113.13 | 85.76 | 65.18 | 65.31 |
| NET INCOME (LOSS) (millions) |  |  |  |  |  |
| January | 1.53 | 2.63 | 1.77 | . 49 | (24.55) |
| April | 8.13 | 9.82 | 3.78 | 1.90 | 3.15 |
| July | 9.14 | 9.61 | 5.77 | 2.68 | 2.23 |
| October | 11.57 | 9.78 | 7.53 | 3.36 | . 26 |
| Total | 30.37 | 31.84 | 18.85 | 8.43 | (18.91) |
| NET EARNINGS (LOSS) |  |  |  |  |  |
| PER PRIMARY COMMON SHARE |  |  |  |  |  |
| January | . 11 | . 08 | . 02 | (.07) | (2.05) |
| April | . 60 | . 62 | . 17 | . 03 | . 25 |
| July | . 67 | . 63 | . 32 | . 09 | . 08 |
| October | . 84 | . 72 | . 45 | . 13 | (.09) |
| Total | 2.22 | 2.05 | . 96 | . 18 | (1.70) |
| QUARTERLY COMMON STOCK DIVIDENDS |  |  |  |  |  |
| January | . 15 | . 14 | . 14 | . 14 | . 13 |
| April | . 15 | . 15 | . 14 | . 14 | . 13 |
| July | . 15 | . 15 | . 14 | . 14 | . 13 |
| October | . 15 | . 15 | . 14 | . 14 | . 13 |
| Total | . 60 | . 59 | . 56 | . 56 | . 52 |
| COMMON STOCK SALES PRICE (High \& Low) |  |  |  |  |  |
| January........................... | 21 1/8 | 24 5/8 | 21 1/4 | 27 | 27 |
|  | 18 | 20 | 16 1/8 | 17 5/8 | 16 1/8 |
| April. | 22.3/8 | 23 7/8 | 22 3/8 | 20 7/8 | 29 7/8 |
|  | 19 5/8 | 21 | 19 1/8 | 14 1/4 | 24 3/4 |
| July . . . . . . . . . . . . . . . . . . . . . . . . . . | 23.7/8 | 26 5/8 | 23 | 17 3/4 | 31 3/4 |
|  | 19 3/8 | 22 1/8 | 18 1/8 | 14 | 21 1/2 |
| October. . . . . . . . . . . . . . . . . . . . . . . | 28 3/4 | 26 | 27 1/4 | 20 3/4 | 24 3/4 |
|  | 19 5/8 | 18 5/8 | 20 3/4 | 16 1/2 | 15 1/2 |

## None

## ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Pursuant to General Instruction G(3) to Form 10-K, information on directors and executive officers of the Registrant is incorporated herein by reference from the Registrant's Definitive Proxy Statement to be filed pursuant to Regulation 14A within 120 days after the close of the fiscal year.

## ITEM 11. EXECUTIVE COMPENSATION

Pursuant to General Instruction G(3) to Form 10-K, information on executive compensation is incorporated herein by reference from the Registrant's Definitive Proxy Statement to be filed pursuant to Regulation 14A within 120 days after the close of the fiscal year.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT
Pursuant to General Instruction $G(3)$ to Form $10-\mathrm{K}$, information on security ownership of certain beneficial owners and management is incorporated herein by reference from the Registrant's Definitive Proxy Statement to be filed pursuant to Regulation 14A within 120 days after the close of the fiscal year.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS
Pursuant to General Instruction G(3) to Form 10-K, information on certain relationships and related transactions is incorporated herein by reference from the Registrant's Definitive Proxy Statement to be filed pursuant to Regulation 14A within 120 days after the close of the fiscal year.

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K
(a) 1. Financial Statements

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Schedules not listed or discussed above have been omitted as they are either inapplicable or the required information has been given in the consolidated financial statements or the notes thereto.
3. Exhibits

## Exhibit

Number
2.1 Asset Purchase Agreement dated July 31, 1996, among the Company, Piper Impact, Inc., a Delaware corporation, Piper Impact, Inc., A Tennessee corporation, B. F. Sammons and M. W. Robbins, filed as Exhibit 2.1 of the Company's Report on Form 8-K, dated August 9, 1996, and incorporated herein by reference.
3.1 Amended and Restated Certificate of Incorporation of the Registrant, filed as Exhibit 3.1 of the Registrant's Annual Report on Form 10-K for the fiscal year ended October 31, 1995, and incorporated herein by reference.
*3.2 Amended and Restated Bylaws of the Registrant, as amended through December 12, 1996.
4.1 Form of Registrant's Common Stock certificate, filed as Exhibit 4.1 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended April 30, 1987, and incorporated herein by reference.
4.2 Amended and Restated Rights Agreement between the Registrant and Manufacturers Hanover Trust Company, as Rights Agent, filed as Exhibit 1 to Amendment No. 1 to the Registrant's Form 8-A dated April 28, 1989, and incorporated herein by reference.
4.3 Amended and Restated Certificate of Designation, Preferences and Rights of the Registrant's Series A Junior Participating Preferred Stock, filed as Exhibit 1 to Amendment No. 1 to the Registrant's Form 8-A dated April 28, 1989, and incorporated herein by reference.
4.4 Form of Indenture relating to the Registrant's 6.88\% Convertible Subordinated Debentures due 2007 between the Registrant and Chemical Bank, as Trustee, filed as Exhibit 19.2 to the Registrant's Quarterly Report on Form 10-Q for the quarter ended April 30, 1992, and incorporated herein by reference.
$4.5 \quad \$ 250,000,000$ Revolving Credit and Term Loan Agreement dated as of July 23, 1996, among the Company, Comerica Bank, as Agent, and Harris Trust and Savings Bank and Wells Fargo Bank (Texas), N.A. as Co-Agents, filed as Exhibit 4.1 of the Company's Report on Form 8-K, dated August 9, 1996, and incorporated herein by reference.
10.1 Agreement of Lease between Leland Tube Company, Inc. and Role Realty Co., dated March 5, 1970, with attached Assignment of Tenant's Interest in Lease from Leland Tube Company to the Registrant, dated May 31, 1979, and filed as Exhibit 10.3 of the Registrant's Form S-2, Registration No. 2-88583, and incorporated herein by reference.
10.2 Agreement of Lease between Leland Tube Company, Inc. and Role Realty Co., dated January 24, 1973, with attached Assignment of Tenant's Interest in Lease from Leland Tube Company to the Registrant, dated May 31, 1979, and filed as Exhibit 10.4 of the Registrant's Form S-2, Registration No. 2-88583, and incorporated herein by reference.
10.3 Lease Agreement between the Registrant and William M. Paul and Associates, dated August 27, 1980, filed as Exhibit 10.5 of the Registrant's Form S-2, Registration No. 288583, and incorporated herein by reference.
10.4 Agreement of Lease between the Registrant and 3D Tower Limited, dated March 5, 1985, filed as Exhibit 10.13 of the Registrant's Annual Report on Form 10-K for the fiscal year ended October 31, 1985, and incorporated herein by reference, as amended by the First Amendment to Lease Agreement between the Registrant and VPM 1989-1, Ltd. effective December 8, 1989 and the amendment filed as Exhibit 10.23 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended January 31, 1995.
+10.5 Quanex Corporation 1988 Stock Option Plan, as amended, and form of Stock Option Agreement filed as Exhibit 10.4 to the Registrant's Annual Report on Form 10-K for the year ended October 31, 1988, together with the amendment filed as Exhibit 10.17 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended January 31, 1995, and incorporated herein by reference.

Quanex Corporation Deferred Compensation Plan, as amended and restated filed as Exhibit 10.6 of the Registrant's Annual Report on Form $10-\mathrm{K}$ for the year ended October 31, 1995, and incorporated herein by reference..

| +10.7 | Quanex Corporation 1978 Stock Option Plan, as amended, filed as Exhibit 10.6 to the Registrant's Annual Report on Form $10-\mathrm{K}$ for the year ended October 31, 1988, together with the amendment filed as Exhibit 10.16 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended January 31, 1995, and incorporated herein by reference. |
| :---: | :---: |
| +10.8 | Quanex Corporation Executive Incentive Compensation Plan, as amended, filed as Exhibit 10.8 to the Registrant's Form $10-\mathrm{K}$ for the fiscal year ended October 31, 1993, and incorporated herein by reference. |
| +10.9 | Quanex Corporation Supplemental Benefit Plan, effective February 28, 1980 as restated November 1, 1988 and amended on June 28, 1991, filed as Exhibit 10.9 to the Registrant's Annual Report on Form $10-\mathrm{K}$ for the year ended October 31, 1991, and incorporated herein by reference. |
| +10.10 | Form of Severance Compensation Agreement and Escrow Agreement, adopted on February 28, 1985, between the Registrant and each executive officer of the Registrant, filed as Exhibit 10.14 of the Registrant's Annual Report on Form 10-K for the fiscal year ended October 31, 1985, and incorporated herein by reference. |
| +10.11 | Quanex Corporation Stock Option Loan Plan for Key Officers, filed as Exhibit 10.13 of the Registrant's Annual Report on Form 10-K for the fiscal year ended October 31, 1988, and incorporated herein by reference. |
| +10.12 | Quanex Corporation 1987 Non-Employee Director Stock Option Plan, as amended, and the related form of Stock Option Agreement, filed as Exhibit 10.14 of the Registrant's Annual Report on Form 10-K for the fiscal year ended October 31, 1988, together with the amendment filed as Exhibit 10.14 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended January 31, 1995, and incorporated herein by reference. |
| +10.13 | Quanex Corporation 1989 Non-Employee Director Stock Option Plan, as amended, filed as Exhibit 4.4 of the Registrant's Form S-8, Registration No. 33-35128, together with the amendment filed as Exhibit 10.15 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended January 31, 1995, and incorporated herein by reference. |
| +10.14 | Quanex Corporation Employee Stock Option and Restricted Stock Plan, as amended, filed as Exhibit 10.14 of the Registrant's Annual Report on Form 10-K for the fiscal year ended October 31, 1994, and incorporated herein by reference. |


| +10.15 | Retirement Agreement dated as of September 1, 1992, between the Registrant and Carl E. Pfeiffer, filed as Exhibit 10.20 to the Registrant's Annual Report on Form $10-\mathrm{K}$ for the fiscal year ended October 31, 1992, and incorporated herein by reference. |
| :---: | :---: |
| +10.16 | Stock Option Agreement dated as of October 1, 1992, between the Registrant and Carl E. Pfeiffer, filed as Exhibit 10.21 to the Registrant's Annual Report on Form $10-\mathrm{K}$ for the fiscal year ended October 31, 1992, and incorporated herein by reference. |
| +10.17 | Deferred Compensation Agreement dated as of July 31, 1992, between the Registrant and Carl E. Pfeiffer, filed as Exhibit 10.22 to the Registrant's Annual Report on Form $10-\mathrm{K}$ for the fiscal year ended October 31, 1992, and incorporated herein by reference. |
| +10.18 | Quanex Corporation Non-Employee Director Retirement Plan, filed as Exhibit 10.18 of the Registrant's Annual Report on Form $10-\mathrm{K}$ for the fiscal year ended October 31,1994, and incorporated herein by reference. |
| *+10.19 | 1996 Employee Stock Option Plan and Restricted Stock Plan. |
| *11 | Statement re computation of per share earnings. |
| *21 | Subsidiaries of the Registrant. |
| *23 | Consent of Deloitte \& Touche LLP. |
| *27 | Financial Data Schedule |

+ Management Compensation or Incentive Plan
* Filed herewith

As permitted by Item 601(b)(4)(iii)(A) of Regulation S-K, the Registrant has not filed with this Annual Report on Form 10-K certain instruments defining the rights of holders of long-term debt of the Registrant and its subsidiaries because the total amount of securities authorized under any of such instruments does not exceed $10 \%$ of the total assets of the Registrant and its subsidiaries on a consolidated basis. The Registrant agrees to furnish a copy of any such agreements to the Securities and Exchange Commission upon request.

A Current Report on Form 8-K dated August 9, 1996, as amended by a Form $8-\mathrm{K} / \mathrm{A}$ dated October 1, 1996, was filed during the quarter ended October 31, 1996, reporting under Items 2 and 7 thereof, the acquisition of the assets of Piper Impact. Item 7 of Form $8-K / A$ included the following financial statements:
(a) Financial Statements of Piper Impact, Inc

Independent Auditor's Report
Balance Sheets as of December 31, 1995 and 1994 and July 31, 1996 Statements of Earnings for the Years Ended December 31, 1995 and 1994 and the Seven-Month Periods Ended July 31, 1996 and 1995 Statements of Cash Flows for the Years Ended December 31, 1995 and 1994 and the Seven-Month Periods Ended July 31, 1996 and 1995 Notes to Financial Statements
(b) Unaudited Pro Forma Consolidated Financial Information of Quanex Corporation
Pro Forma Consolidated Balance Sheet as of July 31, 1996
Pro Forma Consolidated Statement of Income - Year Ended October 31, 1995
Pro Forma Consolidated Statement of Income - Nine Months Ended July 31, 1996
Notes to Pro Forma Consolidated Financial Statement

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.

QUANEX CORPORATION /s/ VERNON E. OECHSLE

December 13, 1996
VERNON E. OECHSLE
Director, President and
Chief Executive Officer
(Principal Executive Officer)
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.

| By: | /s/ ROBERT C. SNYDER | December 13, 1996 |
| :---: | :---: | :---: |
|  | ROBERT C. SNYDER Director and Chairman |  |
| By : | /s/ VERNON E. OECHSLE | December 13, 1996 |
|  | VERNON E. OECHSLE Director, President and Chief Executive Officer |  |
| By : | /s/ JAMES H. DAVIS | December 13, 1996 |
|  | JAMES H. DAVIS <br> Executive Vice President and Chief Operating Officer (Principal Operating Officer) |  |
| By: | /s/ CARL E. PFEIFFER | December 13, 1996 |
|  | CARL E. PFEIFFER Director |  |
| By: | /s/ GERALD B. HAECKEL | December 13, 1996 |
|  | GERALD B. HAECKEL Director |  |


| By: | /s/ JOHN D. O'CONNELL | December 13, 1996 |
| :---: | :---: | :---: |
|  | JOHN D. O'CONNELL Director |  |
| By: | /s/ DONALD G. BARGER, JR. | December 13, 1996 |
|  | DONALD G. BARGER, JR. Director |  |
| By: | /s/ VINCENT R. SCORSONE | December 13, 1996 |
|  | VINCENT R. SCORSONE Director |  |
| By : | /s/ MICHAEL J. SEBASTIAN | December 13, 1996 |
|  | MICHAEL J. SEBASTIAN Director |  |
| By: | /s/ WAYNE M. ROSE | December 13, 1996 |
|  | WAYNE M. ROSE <br> Vice President-Finance and Chief Financial Officer (Principal Financial Officer) |  |
| By: | /s/ VIREN M. PARIKH | December 13, 1996 |
|  | VIREN M. PARIKH <br> Controller <br> (Principal Accounting Officer) |  |


| Exhibit |  |
| :---: | :---: |
| Number | Name of Exhibit |
| 2.1 | Asset Purchase Agreement dated July 31, 1996, among the |
|  | Company, Piper Impact, Inc., a Delaware corporation, Piper |
|  | Impact, Inc., A Tennessee corporation, B. F. Sammons and M. W. Robbins, filed as Exhibit 2.1 of the Company's |
|  | Report on Form 8-K, dated August 9, 1996, and incorporated herein by reference. |
| 3.1 | Amended and Restated Certificate of Incorporation of the |
|  | Registrant, filed as Exhibit 3.1 of the Registrant's |
|  | Annual Report on Form 10-K for the fiscal year ended |
|  | October 31, 1995, and incorporated herein by reference. |
| *3. 2 | Amended and Restated Bylaws of the Registrant, as amended through December 12, 1996. |
| 4.1 | Form of Registrant's Common Stock certificate, filed as |
|  | Exhibit 4.1 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended April 30, 1987, and |
|  | incorporated herein by reference. |
| 4.2 |  |
|  | Registrant and Manufacturers Hanover Trust Company, as |
|  | Rights Agent, filed as Exhibit 1 to Amendment No. 1 to the |
|  | Registrant's Form 8-A dated April 28, 1989, and incorporated herein by reference. |
| 4.3 | Amended and Restated Certificate of Designation, |
|  | Preferences and Rights of the Registrant's Series A Junior |
|  | Participating Preferred Stock, filed as Exhibit 1 to |
|  | Amendment No. 1 to the Registrant's Form 8-A dated April |
|  | 28, 1989, and incorporated herein by reference. |
| 4.4 | Form of Indenture relating to the Registrant's 6.88\% |
|  | Convertible Subordinated Debentures due 2007 between the |
|  | Registrant and Chemical Bank, as Trustee, filed as Exhibit |
|  | 19.2 to the Registrant's Quarterly Report on Form 10-Q for |
|  | the quarter ended April 30, 1992, and incorporated herein by reference. |

$\left.\begin{array}{ll}\text { 4.5 } & \begin{array}{l}\text { \$250,000, } 000 \text { Revolving Credit and Term Loan Agreement } \\ \text { dated as of July 23, 1996, among the Company, Comerica } \\ \text { Bank, as Agent, and Harris Trust and Savings Bank and }\end{array} \\ \text { Wells Fargo Bank (Texas), N.A. as Co-Agents, filed as } \\ \text { Exhibit 4.1 of the Company's Report on Form 8-K, dated }\end{array}\right\}$

| +10.7 | Quanex Corporation 1978 Stock Option Plan, as amended, filed as Exhibit 10.6 to the Registrant's Annual Report on Form 10-K for the year ended October 31, 1988, together with the amendment filed as Exhibit 10.16 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended January 31, 1995, and incorporated herein by reference. |
| :---: | :---: |
| +10.8 | Quanex Corporation Executive Incentive Compensation Plan, as amended, filed as Exhibit 10.8 to the Registrant's Form $10-\mathrm{K}$ for the fiscal year ended October 31, 1993, and incorporated herein by reference. |
| +10.9 | Quanex Corporation Supplemental Benefit Plan, effective February 28, 1980 as restated November 1, 1988 and amended on June 28, 1991, filed as Exhibit 10.9 to the Registrant's Annual Report on Form $10-\mathrm{K}$ for the year ended October 31, 1991, and incorporated herein by reference. |
| +10.10 | Form of Severance Compensation Agreement and Escrow Agreement, adopted on February 28, 1985, between the Registrant and each executive officer of the Registrant, filed as Exhibit 10.14 of the Registrant's Annual Report on Form 10-K for the fiscal year ended October 31, 1985, and incorporated herein by reference. |
| +10.11 | Quanex Corporation Stock Option Loan Plan for Key Officers, filed as Exhibit 10.13 of the Registrant's Annual Report on Form $10-\mathrm{K}$ for the fiscal year ended October 31, 1988, and incorporated herein by reference. |
| +10.12 | Quanex Corporation 1987 Non-Employee Director Stock Option Plan, as amended, and the related form of Stock Option Agreement, filed as Exhibit 10.14 of the Registrant's Annual Report on Form 10-K for the fiscal year ended October 31, 1988, together with the amendment filed as Exhibit 10.14 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended January 31, 1995, and incorporated herein by reference. |
| +10.13 | Quanex Corporation 1989 Non-Employee Director Stock Option Plan, as amended, filed as Exhibit 4.4 of the Registrant's Form S-8, Registration No. 33-35128, together with the amendment filed as Exhibit 10.15 of the Registrant's Quarterly Report on Form 10-Q for the quarter ended January 31, 1995, and incorporated herein by reference. |
| +10.14 | Quanex Corporation Employee Stock Option and Restricted Stock Plan, as amended, filed as Exhibit 10.14 of the Registrant's Annual Report on Form 10-K for the fiscal year ended October 31, 1994, and incorporated herein by reference. |


| +10.15 | Retirement Agreement dated as of September 1, 1992, <br> between the Registrant and Carl E. Pfeiffer, filed as <br> Exhibit 10.20 to the Registrant's Annual Report on Form <br> $10-K$ for the fiscal year ended October 31, 1992, and |
| :--- | :--- |
| incorporated herein by reference. |  |

+ Management Compensation or Incentive Plan
* Filed herewith


# AMENDED AND RESTATED (December 12, 1996) 

BY-LAWS
of
QUANEX CORPORATION
(a Delaware Corporation)

Offices

1. The Corporation shall at all times maintain a registered office in the State of Delaware.
2. The Corporation may also have offices at such other places within or outside of the State of Delaware as the Board of Directors shall from time to time appoint or the business of the Corporation require.

## Capital Stock

3. The Board of Directors may authorize the issuance of the capital stock of the Corporation at such times, for such consideration, and on such terms and conditions as the Board may deem advisable, subject to any restrictions and provisions of law, the Certificate of Incorporation of the Corporation or any other provisions of these by-laws.
4. The shares of the Corporation shall be represented by certificates, provided that the Board of Directors may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation. Notwithstanding the adoption of such a resolution by the Board of Directors, every holder of stock represented by certificates and upon request every holder of uncertificated shares shall be entitled to have a certificate signed by, or in the name of the Corporation by, the chairman or vice-chairman of the board of directors, or the president or vice-president, and by the treasurer or an assistant treasurer, or the secretary or an assistant secretary of the Corporation representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he were such officer, transfer agent or registrar at the date of issue. The certificates shall otherwise be in such form as may be determined by the Board of Directors, shall be issued in numerical order, shall be
5. The shares of the capital stock of the Corporation are transferable only on the books of the Corporation upon surrender, in the case of certificated shares, of the certificates therefor properly endorsed for transfer, or otherwise properly assigned, and upon the presentation of such evidences of ownership of the shares and validity of the assignment as the Corporation may require.
6. The Corporation shall be entitled to treat the person in whose name any share of stock is registered as the owner thereof for purposes of dividends and other distributions in the course of business or in the course of recapitalization, consolidation, merger, reorganization, liquidation, or otherwise, and for the purpose of votes, approvals and consents by shareholders, and for the purpose of notices to shareholders, and for all other purposes whatsoever, and shall not be bound to recognize any equitable or other claim to or interest in such share on the part of any other person, whether or not the Corporation shall have notice thereof, save as expressly required by the laws of the State of Delaware.
7. The Board of Directors may appoint one or more transfer agents and registrars, and may require certificates for shares to bear the signature of such transfer agent(s) and registrar(s).
8. Upon the presentation to the Corporation of a proper affidavit attesting the loss, destruction or mutilation of any certificate for shares of stock of the Corporation, the Board of Directors may direct the issuance of a new certificate or uncertificated shares in lieu of and to replace the certificate so alleged to be lost, destroyed or mutilated. The Board of Directors may require as a condition precedent to the issuance of a new certificate or uncertificated shares any or all of the following: (a) additional evidence of the loss, destruction or mutilation claimed; (b) advertisement of the loss in such manner as the Board of Directors may direct or approve; (c) a bond or agreement of indemnity, in such form and amount and with such surety (or without surety) as the Board of Directors may direct or approve; and (d) the order of approval of a court.

Shareholders and Meetings of Shareholders
9. All meetings of shareholders shall be held at such place within or outside of the State of Delaware as shall be fixed by the Board of Directors and stated in the notice of meeting.
10. The Annual Meeting of Shareholders of the Corporation shall be held on such date and at such time as is fixed by the Board of Directors and stated in the notice of meeting. Directors shall be elected in accordance with the provisions of the Certificate of Incorporation of the Corporation and these by-laws and such other business shall be transacted as may properly come before the meeting.
11. The Annual Meeting of Shareholders may be adjourned by the presiding officer of the meeting for any reason (including, if the presiding officer determines that it would be in the best interests of the Corporation to extend the period of time for the solicitation of proxies) from time to time and place to place until the presiding officer shall determine that the business to be conducted at the meeting is completed, which determination shall be conclusive.
12. At an Annual Meeting of the Shareholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an Annual Meeting, business must be (a) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board of Directors, (b) otherwise properly brought before the meeting by or at the direction of the Board of Directors or (c) otherwise properly brought before the meeting by a shareholder of the Company. For business to be properly brought before an annual meeting by a shareholder, the shareholder must have given timely notice thereof in writing to the Secretary of the Corporation. To be timely, a shareholder's notice must be delivered to or mailed and received at the principal executive offices of the Corporation, not less than 60 days nor more than 180 days prior to the anniversary date of the immediately preceding annual meeting; provided, however, that in the event that the date of the annual meeting is more than 45 days later than the anniversary date of the immediately preceding annual meeting, notice by the shareholder to be timely must be received not later than the close of business on the tenth day following the earlier of the date on which a written statement setting forth the date of the annual meeting was mailed to shareholders or the date on which it is first disclosed to the public. A shareholder's notice to the Secretary shall set forth as to each matter the shareholder proposes to bring before the annual meeting (a) a brief description of the business desired to be brought before the annual meeting, (b) the name and address, as they appear on the Corporation's books, of the shareholder proposing such proposal, (c) the class and number of shares of the Corporation which are beneficially owned by the shareholder and (d) any material interest of the shareholder in such business. In addition, if the shareholder's ownership of shares of the Corporation, as set forth in the notice, is solely beneficial, documentary evidence of such ownership must accompany the notice. Notwithstanding anything in the by-laws to the contrary, no business shall be conducted at an annual meeting except in accordance with the procedures set forth in this Section 12. The presiding officer of an annual meeting shall, if the facts warrant, determine and declare to the meeting that any business which was not properly brought before the meeting is out of order and shall not be transacted at the meeting.
13. Except as otherwise required by law and subject to the rights of the holders of any claim or series of stock having a preference over the Common Stock as to dividends or on liquidation, a special meeting of shareholders may be called only by the President or Secretary and then only at the written request of a majority of the directors, provided that, if as of the date of the request for such special meeting there is a Related Holder as defined in Article FOURTEENTH of the Certificate of Incorporation, such majority shall include a majority of the Continuing Directors, as defined in Article FOURTEENTH of the Certificate of Incorporation or by the holders of four-fifths (80\%) of the voting power of all of the then outstanding shares of capital stock of the

Corporation then entitled to vote generally in the election of directors. The request shall state the purpose or purposes for which the meeting is to be called. The notice of every special meeting of shareholders shall state the purpose for which it is called. At any special meeting of shareholders, only such business shall be conducted as shall be provided for in the resolution or resolutions calling the special meeting or, where no such resolution or resolutions have been adopted, only such business shall be conducted as shall be provided in the notice to shareholders of the special meeting. Any special meeting of shareholders may be adjourned by the presiding officer of the meeting for any reason (including, if the presiding officer determines that it would be in the best interests of the Corporation to extend the period of time for the solicitation of proxies) from time to time and from place to place until the presiding officer shall determine that the business to be conducted at the meeting is completed, which determination shall be conclusive.
14. Written notice of each meeting of shareholders shall be mailed to each shareholder of record at his last address as it appears on the books of the Corporation at least ten days prior to the date of the meeting.
15. The Board of Directors shall have power to close the stock transfer books of the Corporation for a period not more than sixty nor less than ten days preceding the date of any meeting of shareholders, or the date for payment of any dividend, or the date for the allotment of rights, or the date when any change or conversion or exchange of capital stock shall go into effect; provided, however, that in lieu of closing the stock transfer books as aforesaid, the Board of Directors may fix in advance a date not more than sixty nor less than ten days preceding the date of any meeting of shareholders, or the date for any payment of dividends, or the date for allotment of rights, or the date when any change or conversion or exchange of capital stock shall go into effect, as a record date for the determination of the shareholders entitled to vote at any such meeting or entitled to receive payment of any such dividend or to any such allotment of rights, or to exercise the rights in respect of any such change, conversion or exchange of capital stock, and in such cases only such shareholders as shall be shareholders of record on the date so fixed shall be entitled to vote at such meeting, or to receive payment of such dividend, or to receive such allotment of rights, or to exercise such rights, as the case may be, notwithstanding any transfer of any stock on the books of the Corporation after any such record date fixed as aforesaid. This by-law shall in no way affect the rights of a shareholder and his transferee or transferor as between themselves
16. The holders of a majority of the outstanding shares of stock of the Corporation having voting power with respect to a subject matter (excluding shares held by the Corporation for its own account) present or epresented by proxy shall constitute a quorum at the meeting of shareholders for the transaction of business with respect to such subject matter. In the absence of a quorum, the shareholders present in person or by proxy shall have power to adjourn the meeting from time to time, without notice other than an announcement at the meeting, until a quorum is present. If the adjournment is for more than 30 days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each shareholder of record
entitled to vote at the meeting. At such adjourned meeting, any business may be transacted which might have been transacted at the meeting as originally notified.
17. When a quorum is present or represented at any meeting of shareholders, the affirmative vote of the holders of a majority of the shares present in person or represented by proxy at the meeting and entitled to vote on the subject matter shall be the act of the shareholders in all matters, unless the matter is one upon which, by express provision of the corporation laws of the State of Delaware, of the Certificate of Incorporation or of these by-laws, a different vote is required, in which case such express provision shall govern and control the decision of that matter. Directors shall be elected by a plurality of the votes of the shares present in person or represented by proxy and entitled to vote on the election of directors.
18. Every shareholder having the right to vote shall be entitled to vote in person, or by proxy appointed by an instrument in writing subscribed by such shareholder (which for purposes of this paragraph may include a signature and form of proxy pursuant to a facsimile or telegraphic form of proxy or any other instruments acceptable to the Judge of Election), bearing a date not more than three years prior to voting, unless such instrument provides for a longer period, and filed with the Secretary of the Corporation before, or at the time of, the meeting. If such instrument shall designate two or more persons to act as proxies, unless such instrument shall provide to the contrary, a majority of such persons present at any meeting at which their powers thereunder are to be exercised shall have and may exercise all the powers of voting thereby conferred, or if only one be present, then such powers may be exercised by that one; or, if an even number attend and a majority do not agree on any particular issue, each proxy so attending shall be entitled to exercise such powers in respect of the same portion of the shares as he is of the proxies representing such shares.
19. Unless otherwise provided by the Certificate of Incorporation or by the corporation laws of the State of Delaware, each shareholder of the Corporation shall, at every meeting of shareholders, be entitled to one vote in person or by proxy for each share of capital stock of the Corporation registered in his name.
20. Any other corporation owning voting shares in this Corporation may vote the same by its President or by proxy appointed by him, unless some other person shall be appointed to vote such shares by resolution of the Board of Directors of such shareholder corporation. A partnership holding shares of this Corporation may vote such shares by any general partner or by proxy appointed by any general partner.
21. Shares standing in the name of a deceased person may be voted by the executor or administrator of such deceased person, either in person or by proxy. Shares standing in the name of a guardian, conservator or trustee may be voted by such fiduciary, either in person or by proxy, but no such fiduciary shall be entitled to vote shares held in such fiduciary capacity without a transfer of such shares into the name of such fiduciary. Shares standing in the name of a receiver
may be voted by such receiver. A shareholder whose shares are pledged shall be entitled to vote such shares, unless in the transfer by the pledgor on the books of the Corporation, he has expressly empowered the pledgee to vote thereon, in which case only the pledgee, or his proxy, may represent the stock and vote thereon.
22. The order of business and all other matters of procedure at every meeting of the shareholders may be determined by the presiding officer of the meeting, who shall be the Chairman of the Board of Directors, the President or such other officer of the Corporation as designated by the Board. The presiding officer of the meeting shall have all the powers and authority vested in a presiding officer by law or practice without restriction, including, without limitation, the authority, in order to conduct an orderly meeting, to impose reasonable limits on the amount of time at the meeting taken up in remarks by any one shareholder and to declare any business not properly brought before the meeting to be out of order.
23. The Board shall appoint one or more Judges of Election to serve at every meeting of the shareholders.
24. The business of the Corporation shall be managed by a Board of Directors who shall exercise all the powers of the Corporation not reserved to or conferred on the shareholders by statute, the Certificate of Incorporation or the by-laws of the Corporation.
25. Except as otherwise fixed pursuant to the provisions of the Certificate of Incorporation relating to the rights of the holders of any class or series of stock having a preference over the Common Stock as to dividends or upon liquidation to elect additional directors under specified circumstances, the number of directors shall be as fixed from time to time by resolution of the Board, provided the number shall be not less than three. The directors, other than those who may be elected by the holders of any class or series of stock having a preference over the Common Stock as to dividends or upon liquidation, shall be divided into three classes as nearly equal in number as possible, with the term of office of one class expiring each year. The term of office of each director shall expire at the third Annual Meeting after election of the class to which he belongs. During the intervals between Annual Meetings of Shareholders, any vacancy occurring in the Board of Directors caused by resignation, removal, death or other incapacity, and any newly-created directorships resulting from an increase in the number of directors, shall be filled by a majority vote of the directors then in office, whether or not a quorum. Each director chosen to fill a vacancy shall hold office for the unexpired term in respect of which such vacancy occurs. Each director chosen to fill a newly-created directorship shall hold office until the next election of the class for which such director shall have been chosen.
26. No person may be elected or re-elected a director of the Corporation if at the time of his election or reelection he shall have attained the age of 70 years, provided however, that a director who shall attain the age of 70 years while serving as a director shall continue in office until the expiration of the term for which he was elected and, provided further that with respect to any person who was a director on November 1, 1996, the reference to "70 years" shall be changed to "72 years."
27. Subject to the rights of holders of any class or series of stock having a preference over the Common Stock as to dividends or upon liquidation, nominations for the election of directors may be made by the Board of Directors or a committee appointed by the Board of Directors or by any shareholder entitled to vote in the election of directors generally. However, any shareholder entitled to vote in the election of directors generally may nominate one or more persons for election as directors at a meeting only if written notice of such shareholder's intent to make such nomination or nominations has been given, either by personal delivery or by United States mail, postage prepaid, to the Secretary of the Corporation not later than (i) with respect to an election to be held at an Annual Meeting of Shareholders, 90 days prior to the anniversary date of the date of the immediately preceding annual meeting, and (ii) with respect to an election to be held at a special meeting of shareholders for the election of directors, the close of business on the tenth day following the date on which a written statement setting forth the date of such meeting is first mailed to shareholders provided that such statement is mailed no earlier than 120 days prior to the date of such meeting. Notwithstanding the foregoing if an existing director is not standing for reelection to a directorship which is the subject of an election at such meeting or if a vacancy exists as to a directorship which is the subject an election, whether as a result of resignation, death, an increase in the number of directors, or otherwise, then a shareholder may make a nomination with respect to such directorship at anytime not later than the close of business on the tenth day following the date on which a written statement setting forth the fact that such directorship is to be elected and the name of the nominee proposed by the Board of Directors is first mailed to shareholders. Each notice of a nomination from a shareholder shall set forth: (a) the name and address of the shareholder who intends to make the nomination and of the person or persons to be nominated; (b) a representation that the shareholder is a holder of record of stock of the Corporation entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice; (c) a description of all arrangements or understandings between the shareholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by the shareholder; (d) such other information regarding each nominee proposed by such shareholder as would be required to be included in a proxy statement filed pursuant to the Securities Exchange Act of 1934 and the rules and regulations thereunder (or any subsequent provisions replacing such Act, rules or regulations); and (e) the consent of each nominee to serve as a director of the Corporation if so elected. The presiding officer of the meeting may refuse to acknowledge the nomination of any person not made in compliance with the foregoing procedure.
28. Any director may be removed from office as a director at any time, but only for cause, by the affirmative vote of shareholders of record holding a majority of the outstanding shares of stock of the Corporation entitled to vote in elections of directors at a meeting of the shareholders called for that purpose.
29. Regular meetings of the Board of Directors shall be held at such times and at such place or places as the directors shall, from time to time, determine at a prior meeting. Special meetings of the Board may be called by the Chairman of the Board or President of the Corporation and shall be called by either of said officers upon the written request of any two directors. Special meetings shall be held at the office of the corporation or at such place as is stated in the notice of the meeting. No notice shall be required for regular meetings of the Board. Notices of special meetings shall be given by mail at least five days before the meeting or by telephone, telecopy or telegram at least 24 hours before the meeting. Notices may be waived. Notices need not include any statement of the purpose of the meeting.
30. When all of the directors shall be present at any meeting, however called or notified, they may act upon any business that might lawfully be transacted at regular meetings of the Board, or at special meetings duly called, and action taken at such meetings shall be as valid and binding as if legally called and notified. Members of the Board of Directors may participate in a meeting of the Board by means of conference telephone or similar communications equipment to the full extent and with the same effect as authorized and permitted by Delaware law.
31. One-third of the total number of the members of the Board of Directors shall constitute a quorum for the transaction of business, and the acts of a majority of the directors present at any meeting at which there is a quorum present shall be the acts of the Board; provided, however, that the directors may act in such other manner, with or without a meeting, as may be permitted by the laws of the State of Delaware and provided further, that if all of the directors shall consent in writing to any action taken by the Corporation, such action shall be as valid as though it had been authorized at a meeting of the Board.
32. Directors shall receive such compensation and such fees for attendance at meetings of the Board or of committees thereof and such other compensation as shall be fixed by a majority of the entire Board.

## Committees of Directors

33. The Board of Directors shall establish an Executive Committee, an Audit and Environmental Compliance Committee, a Compensation and Management Development Committee, a Nominating and Corporate Governance Committee, a Finance and Investment Committee, and such other committees as may be established by resolution of a majority of the whole Board. Each of such committees shall consist of one or more members of the Board. Members of committees of
the Board of Directors shall be elected annually by vote of a majority of the Board. Presence of one-half of the committee members, shall constitute a quorum. Committees may act by majority vote of the members present at a meeting. Each of such committees shall have and may exercise such of the powers of the Board of Directors in the management of the business and affairs of the Corporation as may be provided in these by-laws or by resolution of the Board of Directors. Each of such committees may authorize the seal of the Corporation to be affixed to all papers which may require it. The Board of Directors may designate one or more directors as alternate members of any such committee, who may replace any absent or disqualified member at any meeting of such committee. Meetings of committees may be called by any member of a committee by written, telegraphic or telephonic notice and shall be held at such time and place as shall be stated in the notice of meeting. Any member of a committee may participate in any meeting by means of conference telephone or similar communications equipment. In the absence or disqualification of a member of any committee the member or members thereof present at any meeting and not disqualified from voting, whether or not constituting a quorum may, if deemed advisable, unanimously appoint another member of the Board to act at the meeting in the place of the disqualified or absent member. Each committee may fix such other rules and procedures governing conduct of meetings as it shall deem appropriate.
34. The Executive Committee of the Board of Directors shall consist of not less than three directors. The Executive Committee shall have and exercise the authority of the Board of Directors between meetings of the Board, subject to such limitations and restrictions as the Board may impose in a resolution duly adopted by the Board.
35. The Audit and Environmental Compliance Committee shall consist of not less than three members of the Board of Directors, none of whom shall be officers of the Corporation. The Committee shall be responsible for recommending to the entire Board engagement and discharge of independent auditors of the financial statements of the Corporation, shall review the professional service provided by independent auditors, shall review the independence of independent auditors, shall review with the auditors the plan and results of the auditing engagement, shall consider the range of audit and non-audit fees, shall review the adequacy of the Corporation's system of internal accounting controls, shall review the results of procedures for internal auditing and shall consult with the internal auditor of the Corporation with respect to all aspects of the Corporation's internal auditing program, and shall direct and supervise special investigations as deemed necessary by the Committee. Additionally, the Committee will review and confirm with the Board of Directors the Company's compliance with applicable laws and regulations relating to health, safety, and the environment which may represent material financial exposure to the Company.
36. The Compensation and Management Development Committee shall recommend to the Board the compensation to be paid to officers and key employees of the Corporation and the compensation of members of the Board of Directors. The Committee shall also make recommendations to the Board of Directors regarding structural organization of the Corporation and
selection of senior management personnel and their replacements and successors. Except as otherwise provided in any specific plan adopted by the Board, the Committee shall be responsible for administration of executive incentive compensation plans, stock option plans and other forms of direct or indirect compensation of officers and key employees. In addition, the Committee shall review levels of pension benefits and insurance programs for officers and key employees. The Committee shall act as the committee administering the Executive Incentive Plan of the Corporation.
37. 

The Nominating and Corporate Governance Committee shall recommend to the Board nominees for election as directors, shall consider performance of incumbent directors, shall recommend to the Board whether an incumbent director whose term expires shall be nominated for reelection, and shall establish and recommend to the Board of Directors such corporate governance guidelines as may be appropriate.
38. The Finance and Investment Committee shall review, as appropriate, advise and consult with senior management concerning the general financial affairs of the Company including the capital structure of the Company, financing plans, cash flow projections, dividend policy, stock re-purchase programs, currency exchange agreement procedure, loan agreements, capital investment policy, and appropriate target rates of return. Additionally, the Committee shall monitor and review the establishment of investment objectives, policies, and performance criteria for the management of the Company's retirement and benefit plan assets, and review annually the performance gain/loss of the Company's retirement and benefit plan asset investments.
39. Any action required or permitted to be taken at any meeting of any committee of the Board of Directors may be taken without a meeting if a consent in writing, setting forth the action so taken, is signed by all of the members of such committee.

## Officers

40. The Board of Directors shall elect a Chief Executive Officer, a President, who may also be the Chief Executive Officer, and a Secretary, and may elect a Chairman, a Treasurer, one or more vice presidents, including an Executive Vice President and a Vice President-Finance, a Controller, a Controller-Operations, and one or more assistant secretaries and assistant treasurers. The Chief Executive Officer of the Corporation shall be a director of the Corporation. Any two of the above offices, except those of President and Vice President, may be held by the same person but no officers shall execute, acknowledge or verify any instrument in more than one capacity.
41. Officers of the Corporation shall hold office until they resign or until their successors are chosen and qualified; provided, however, that no person shall serve as an officer of the Corporation beyond the last day of the fiscal year of the Corporation during which such person reaches age 65. Any officer, agent or employee may be removed at any time, with or without cause, by the Board but such removal shall be without prejudice to the contractual rights, if any, of the
person so removed. Election or appointment of an officer or agent shall not of itself create contract rights. Vacancy occurring in any office or position at any time may be filled by the Board. All officers, agents and employees of the Corporation shall respectively have such authority and perform such duties in the conduct and management of the Corporation as may be delegated by the Board of Directors or by these by-laws.
42. Officers shall receive such compensation as may from time to time be determined by the Board of Directors. Agents and employees shall receive such compensation as may from time to time be determined by the President of the Company or, if the Board of Directors has elected a Chairman of the Board and has designated such Chairman of the Board to be the Chief Executive Officer of the Company, by the Chairman of the Board.
43. The Chairman of the Board shall preside at all meetings of the shareholders and at all meetings of the directors. In the absence of the Chairman of the Board, the President shall so preside.
44. The Board of Directors shall designate either the Chairman of the Board or the President as the Chief Executive Officer of the Company. The Chief Executive Officer of the Company shall supervise and direct the operations of the business in accordance with the policies determined by the Board of Directors. If the President is not designated the Chief Executive Officer, the President shall be the Chief Operating Officer of the Company and shall be responsible for the general supervision and control of the business and the affairs of the Company subject to the directions of the Chief Executive Officer and the Board of Directors. The Chief Operating Officer, in the absence or incapacity of the Chief Executive Officer, shall perform the duties of that office.
45. 

The Vice President, in the absence or incapacity of the President, shall perform the duties of that office. If there be an executive vice president, he shall perform the duties of the President in the event of his absence or incapacity. If there be more than one vice president, and no executive vice president, the Board of Directors may designate the Vice President who is to perform the duties of the President in the event of his absence or incapacity. Each Vice President shall have such other duties and authority as shall be assigned by the President or may be delegated by the Board of Directors. The Vice President-Finance shall be responsible for and direct the Treasurer, Controller, and Director of Data Processing of the Corporation in all treasury, accounting, cost and budgeting, and data collection functions. He will report directly to the President with a report and policy relationship to the Chairman of the Board and the Board of Directors.
46. The Secretary shall attend all meetings of the Board of Directors and all meetings of shareholders and shall record all votes and minutes from all proceedings in a book to be kept for that purpose. He shall keep in safe custody the seal of the Corporation and, when authorized by the Board, affix the same to any instrument requiring it, and when so affixed, it shall be attested by his
signature or by the signature of the Treasurer or an Assistant Secretary. The Secretary shall perform such other duties and have such other authorities as are delegated to him by the Board of Directors.
47. The Treasurer shall be responsible for the care and custody of all funds and other financial assets, taxes, corporate debt, order entry and sales invoicing including credit memos, credit and collection of accounts receivable, cash receipts, and the banking and insurance functions of the Corporation. He shall report directly to and perform such other duties as shall be assigned by the Vice President-Finance.
48. The Controller shall be responsible for the installation and supervision of all general accounting records of the Corporation, preparation of financial statements and the annual and operating budgets and profit plans, continuous audit of accounts and records of the Corporation, preparation and interpretation of statistical records and reports, taking and costing of all physical inventories and administering the inventory levels, supervision of accounts payable and cash disbursements function and hourly and salary payrolls. He shall report directly to and perform such other functions as shall be assigned him by the Vice President-Finance.
49. The Board of Directors of the Corporation may require any officer, agent or employee to give bond for the faithful discharge of his duty and for the protection of the Corporation, in such sum and with such surety as the Board deems advisable.

Banking, Checks and Other Instruments
50. The Board of Directors shall by resolution designate the bank or banks in which the funds of the Corporation shall be deposited, and such funds shall be deposited in the name of the Corporation and shall be subject to checks drawn as authorized by resolution of the Board of Directors.
51. The Board of Directors may in any instance designate the officers and agents who shall have authority to execute any contract, conveyance, or other instrument on behalf of the Corporation; or may ratify or confirm any execution. When the execution of any instrument has been authorized without specification of the executing officer or agents, the Chairman of the Board, if designated as the Chief Executive Officer of the Corporation, President or any Vice President, and the Secretary or Assistant Secretary or Treasurer or Assistant Treasurer may execute the same in the name and on behalf of the Corporation and may affix the corporate seal thereto.

Fiscal Year
52. The fiscal year of the Corporation shall begin on the first day of November and end on the thirty-first day of October.
53. The proper officers and agents of the Corporation shall keep and maintain such books, records and accounts of the Corporation's business and affairs and such stock ledgers and lists of shareholders as the Board of Directors shall deem advisable and as shall be required by the laws of the State of Delaware or other states or jurisdictions empowered to impose such requirements.

## Indemnification

54. 

Each director or officer of the Corporation who was or is made a party or is threatened to be made a party to or is involved in any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (hereinafter a "proceeding"), by reason of the fact that he or she, or a person of whom he or she is the legal representative, is or was a director or officer of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, whether the basis of such proceeding is alleged action in an official capacity while serving as a director, officer, employee or agent, shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the Delaware General Corporation Law, as the same exists or may hereafter be amended (the "DGCL"), (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than said law permitted the Corporation to provide prior to such amendment), against all expense, (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection therewith and such indemnification shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of his or her heirs, executors and administrators. The right to indemnification conferred in this Section shall be a contract right and shall include the right to be paid by the Corporation the expenses incurred in defending any such proceeding in advance of its final disposition; provided, however, that, if the DGCL requires, the payment of such expenses incurred by a director or officer in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such person while a director or officer, including, without limitation, service to an employee benefit plan) in advance of the final disposition of a proceeding, shall be made only upon delivery to the Corporation of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified under the applicable provisions of the DGCL. The Corporation may, by action of its Board of Directors, provide indemnification to employees and agents of the Corporation with the same scope and effect as the foregoing indemnification of directors and officers.
55. The indemnification and advancement of expenses provided in paragraph 53 shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any agreement, vote of stockholders, vote of disinterested directors,
56. These by-laws may be altered, amended or repealed and new by-laws may be adopted at any regular meeting of the shareholders or Board of Directors; or at any special meeting of the shareholders or Board of Directors; provided that notice of such proposed making, alteration or repeal be included in the notice of such special meeting. The Board of Directors may take such action by the vote of a majority of those Directors present and voting at a meeting where a quorum is present, provided that if there is a Related Holder as defined in Article FOURTEENTH of the Certificate of Incorporation, such majority shall include a majority of the Continuing Directors, as defined in Article FOURTEENTH of the Certificate of Incorporation. In accordance with the provisions of the Certificate of Incorporation, the shareholders may make new by-laws, or adopt, alter, amend, or repeal by-laws adopted by either the shareholders or the Board of Directors by the affirmative vote of the holders of not less than four-fifths of the voting power of all of the then outstanding shares of capital stock of the Corporation then entitled to vote generally for the election of directors. The power of the shareholders and the Board shall include the fixing and appointing of the number of directors in accordance with the provisions of the Certificate of Incorporation.

## QUANEX CORPORATION 1996

EMPLOYEE STOCK OPTION AND RESTRICTED STOCK PLAN

SECTION 1. PURPOSE
The purpose of the Quanex Corporation 1996 Employee Stock Option and Restricted Stock Plan is to promote the interests of Quanex Corporation (the "Company") and its shareholders by providing it with a mechanism to enable the Company and its subsidiaries to attract, retain and motivate their key employees with compensatory arrangements and benefits that make use of the Company's stock so as to provide for or increase the proprietary interests of such employees in the Company.

SECTION 2. DEFINITIONS
(A) "AGREEMENT" shall mean a written agreement setting forth the terms of an Award.
(B) "AWARD" shall mean an Option (which may be designated as an Incentive Stock Option or a Non-Incentive Stock Option) or a Restricted Stock Award granted under this Plan.
(C) "BOARD" shall mean the Board of Directors of the Company.
(D) "CODE" shall mean the Internal Revenue Code of 1986, as amended from time to time.
(E) "COMMITTEE" shall mean the committee appointed by the Board to administer this Plan.
(F) "COMMON STOCK" shall mean the Company's Common Stock, $\$ .50$ par value (or such other par value as may be designated by act of the Company's stockholders). In addition, for purposes of the Plan and the Awards, the term Common Stock shall also be deemed to include any rights to purchase ("Rights") the Series A Junior Participating Preferred Stock of the Company that may then be trading together with the Common Stock as provided in the Rights Agreement between the Company and Chemical Bank relating to the Rights.
(G) "COMPANY" shall mean Quanex Corporation.
(H) "DISABILITY" shall mean a mental or physical disability which, in the opinion of a physician selected by the Committee, shall prevent the Employee from earning a reasonable livelihood with the Company or any Subsidiary and which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months and which: (a) was not contracted, suffered or incurred while the Employee was engaged in, or did not result from having engaged in, a felonious criminal enterprise; (b) did not result from alcoholism or addiction to narcotics; and (c) did not result from an injury incurred while a member of the Armed Forces of the United States for which the Employee receives a military pension.
(I) "DISINTERESTED" shall mean disinterested within the meaning of applicable regulatory requirements, including those promulgated under Section 16 of the Exchange Act.
(J) "EMPLOYEE" shall mean an officer or employee of the Company or a Subsidiary.
(K) "EXCHANGE ACT" shall mean the Securities Exchange Act of 1934, as amended.
(L) "FAIR MARKET VALUE" shall mean the closing price of the Common Stock on the date in question as reported in the New York Stock Exchange - -- Composite Transactions listing or if, in the discretion of the Committee, another means of determining the fair market value of a share of Common Stock at such date shall be necessary or advisable, the Committee may provide for another means of determining such fair market value.
(M) "INCENTIVE STOCK OPTION" shall mean an Option that is intended by the Committee to meet the requirements of Section 422 of the Code or any successor provision.
(N) "NON-INCENTIVE STOCK OPTION" shall mean an Option granted pursuant to this Plan which does not qualify as an Incentive Stock Option.
(0) "OPTION" shall mean the right to purchase Common Stock at a price to be specified and upon terms to be designated by the committee pursuant to this Plan. An Option shall be designated by the Committee as an Incentive Stock Option or a Non-Incentive Stock Option.
(P) "OPTION PRICE" shall mean the price at which shares may be purchased pursuant to an Option.
(Q) "PLAN" shall mean this Quanex Corporation 1996 Employee Stock Option and Restricted Stock Plan.
(R) "RESTRICTED PERIOD" shall mean the period designated by the Committee during which Restricted Stock may not be sold, assigned, transferred, pledged, or otherwise encumbered.
(S) "RESTRICTED STOCK" shall mean those shares of Common Stock issued pursuant to a Restricted Stock Award which are subject to the restrictions, terms, and conditions set forth in the related Agreement.
(T) "RESTRICTED STOCK AWARD" shall mean an award of Restricted Stock pursuant to Section 8 hereof.
(U) "RETAINED DISTRIBUTIONS" shall mean any securities or other property (other than regular cash dividends) distributed by the Company in respect of Restricted Stock during any Restricted Period.
(V) "RETIRE" or "RETIREMENT" shall mean retirement in accordance with the terms of a retirement plan that is qualified under Section 401(a) of the Code and maintained by the Company or a Subsidiary in which the employee is a participant.
(W) "SUBSIDIARY" shall mean any present or future subsidiary corporations, as defined in Section 424 of the Code, of the Company.

SECTION 3. STOCK SUBJECT TO THE PLAN
The total amount of the Common Stock with respect to which Awards may be granted shall not exceed in the aggregate 750,000 shares. The class and aggregate number of shares which may be subject to the Options granted under this Plan shall be subject to adjustment under Section 7. The class and aggregate number of shares which may be subject to the Restricted Stock Awards granted under the Plan shall also be subject to adjustment under Section 8. Shares may be treasury shares or authorized but unissued shares. If any Award under the Plan shall expire or terminate for any reason without having been exercised in full, or if any Award shall be forfeited, the shares subject to the unexercised or forfeited portion of such Award shall again be available for the purposes of the Plan.

SECTION 4. ADMINISTRATION
The Plan shall be administered by a Committee the members of which shall be Disinterested persons. The Committee shall consist of not less than two members of the Board, who are not Employees. The Board shall have the power from time to time to add or remove members of the Committee, and to fill vacancies arising for any reason. The Committee shall designate a chairman from among its members, who shall preside at all of its meetings, and shall designate a secretary, without regard to whether that person is a member of the Committee, who shall keep the minutes of the proceedings and all records, documents, and data pertaining to its administration of the Plan. Meetings shall be held at any time and place as it shall choose. A majority of the members of the Committee shall constitute a quorum for the transaction of business. The vote of a majority of those members present
at any meeting shall decide any question brought before that meeting. In addition, the Committee may take any action otherwise proper under the Plan by the affirmative vote, taken without a meeting, of a majority of its members No member of the Committee shall be liable for any act or omission of any other member of the Committee or for any act or omission on his own part, including but not limited to the exercise of any power or discretion given to him under the Plan, except those resulting from his own gross negligence or willful misconduct. All questions of interpretation and application of the Plan, or as to Awards granted under it shall be subject to the determination of a majority of the Committee. The Committee in exercising any power or authority granted under this Plan or in making any determination under this Plan shall perform or refrain from performing those acts using its sole discretion and judgment. Any decision made by the Committee or any refraining to act or any act taken by the Committee in good faith shall be final and binding on all parties. The Committee's decision shall never be subject to de novo review. When appropriate the Plan shall be administered in order to qualify certain of the Options granted under it as Incentive Stock Options.

## SECTION 5. ELIGIBILITY

The individuals who shall be eligible to participate in the Plan shall be those full-time key Employees, including directors if they are Employees, as the Committee shall determine during the term of this Plan. No individual shall be eligible to receive an Award under the Plan while that individual is a member of the Committee.

No Employee who owns stock possessing more than $10 \%$ of the total combined voting power of all classes of stock of the corporation employing the Employee or of its parent or subsidiary corporation shall be eligible to receive an Option which is an Incentive Stock Option unless at the time that the Option is granted the option price is at least $110 \%$ of the Fair Market Value of the Common Stock at the time the Option is granted and the Option by its own terms is not exercisable after the expiration of five years from the date the Option is granted

An Employee will be considered as owning the stock owned, directly or indirectly, by or for his brothers and sisters (whether by the whole or half blood), spouse, ancestors, and lineal descendants. Stock owned, directly or indirectly, by or for a corporation, partnership, estate or trust will be considered as being owned proportionately by or for its shareholders, partners or beneficiaries. For all purposes of this Plan, a parent corporation is any corporation (other than the Company) in an unbroken chain of corporations ending with the Company if, on the date of grant of the Option in question, each of the corporations other than the Company owns stock possessing $50 \%$ or more of the total combined voting power of all classes of stock in one of the other corporations in that chain; and a subsidiary corporation is any corporation (other than the Company) in an unbroken chain of corporations beginning with the Company if, on the date of grant of the Option in question, each of the corporations, other than the last corporation in the chain, owns stock possessing $50 \%$ or more of the total combined voting power of all classes of stock in one of the other corporations in that chain.

## SECTION 6. MAXIMUM NUMBER OF SHARES SUBJECT TO AN AWARD

The maximum number of shares of Common Stock subject to Options that may be awarded to any Employee under the Plan during any consecutive three year period is 250,000. The maximum number of shares of Common Stock that may be awarded to any Employee pursuant to Restricted Stock Awards under the Plan during any consecutive three year period is 250, 000 .

## SECTION 7. STOCK OPTIONS

A. AUTHORITY TO GRANT OPTIONS. The Committee may grant Incentive Stock Options or Non-Incentive Stock Options at any time during the term of this Plan to any eligible Employee that it chooses.

Each Option granted shall be approved by the Committee.
Subject only to any applicable limitations set forth in this Plan, the number of shares of Common Stock to be covered by an Option shall be as determined by the Committee.
B. OPTION PRICE. The price at which shares may be purchased pursuant to an Option, whether it is an Incentive Stock Option or a Non-Incentive Stock Option, shall be not less than the Fair Market Value of the shares of Common Stock on the date the Option is granted. The Committee in its discretion may provide that the price at which shares may be purchased shall be more than the minimum price required.
C. DURATION OF OPTIONS. No Option which is an Incentive

Stock Option shall be exercisable after the expiration of ten years from the date such Option is granted. The Committee in its discretion may provide that such Option shall be exercisable throughout the ten year period or during any lesser period of time commencing on or after the date of grant of such Option and ending upon or before the expiration of the ten year period. If an Employee owns stock possessing more than $10 \%$ of the total combined voting power of all classes of stock of the corporation employing the Employee or of its parent or subsidiary corporation, no Option which is an Incentive Stock Option shall be exercisable after the expiration of five years from the date such Option is granted. No Option which is a Non-Incentive Stock Option shall be exercisable after the expiration of ten years from the date such Option is granted. The Committee in its discretion may provide that such option shall be exercisable throughout the ten year period or during any lesser period of time commencing on or after the date of grant of such Option and ending upon or before the expiration of the ten year period.
D. MAXIMUM VALUE OF STOCK SUBJECT TO OPTIONS WHICH ARE INCENTIVE STOCK OPTIONS. To the extent that the aggregate Fair Market Value (determined as of the date the Option is granted) of the stock with respect to which Incentive Stock Options are exercisable for the first time by the Optionee in any calendar year (under this Plan and any other incentive stock option plan(s) of the Company and any parent and subsidiary corporation) exceeds \$100,000, the Options shall be treated as Non-Incentive Stock Options. In making this determination, Options shall be taken into account in the order in which they were granted.
E. AMOUNT EXERCISABLE. The usual form of agreement granting an Option (whether Incentive or Non- Incentive) shall, subject to any limitation on exercise contained in the Agreement which is not inconsistent with this Plan, contain the following terms of exercise:
(a) No Option granted under this Plan may be exercised until an Optionee has completed one year of continuous employment with the Company or any Subsidiary following the date of grant;
(b) Beginning on the day after the first anniversary of the date of grant, an Option may be exercised up to $1 / 3$ of the shares subject to the Option;
(c) After the expiration of each succeeding anniversary date of the date of grant, the Option may be exercised up to an additional $1 / 3$ of the shares subject to the Option, so that after the expiration of the third anniversary of the date of grant, the Option shall be exercisable in full; and
(d) To the extent not exercised, installments shall be cumulative and may be exercised in whole or in part until the Option expires on the tenth anniversary of the date of the grant.

However, the Committee, in its discretion, may change the terms of exercise so that any Option may be exercised so long as it is valid and outstanding from time to time in part or as a whole in such manner and subject to such conditions as it may set. In addition, the Committee, in its discretion, may accelerate the time in which any outstanding Option may be exercised. But in no event shall any Option be exercisable after the tenth anniversary of the date of the grant.
F. EXERCISE OF OPTIONS. An Optionee may exercise such
optionee's Option by delivering to the Company a written notice stating (i) that such optionee wishes to exercise such Option on the date such notice is so delivered, (ii) the number of shares of stock with respect to which the Option is to be exercised and (iii) the address to which the certificate representing such shares of stock should be mailed. In order to be effective, such written notice shall be accompanied by (i) payment of the Option Price of such shares of stock and (ii) payment of an amount of money necessary to satisfy any withholding tax

If, at the time of receipt by the Company of such written notice, (i) the Company has unrestricted surplus in an amount not less than the Option Price of such shares of stock, (ii) all accrued cumulative preferential dividends and other current preferential dividends on all outstanding shares of preferred stock of the Company have been fully paid, (iii) the acquisition by the Company of its own shares of stock for the purpose of enabling such optionee to exercise such Option is otherwise permitted by applicable law and without any vote or consent of any stockholder of the Company, and (iv) there shall have been adopted, and there shall be in full force and effect, a resolution of the Board authorizing the acquisition by the Company of its own shares of stock for such purpose, then such optionee may deliver to the Company, in payment of the Option Price of the shares of stock with respect to which such Option is exercised, ( $x$ ) certificates registered in the name of such optionee that represent a number of shares of stock legally and beneficially owned by such optionee (free of all liens, claims and encumbrances of every kind) and having a Fair Market Value on the date of receipt by the Company of such written notice that is not greater than the Option Price of the shares of stock with respect to which such Option is to be exercised, such certificates to be accompanied by stock powers duly endorsed in blank by the record holder of the shares of stock represented by such certificates, with the signature of such record holder guaranteed by a national banking association, and (y) if the Option Price of the shares of stock with respect to which such Option is to be exercised exceeds such Fair Market Value, a cashier's check drawn on a national banking association and payable to the order of the Company in an amount, in United States dollars, equal to the amount of such excess. Notwithstanding the provisions of the immediately preceding sentence, the Committee, in its sole discretion, may refuse to accept shares of stock in payment of the Option Price of the shares of stock with respect to which such Option is to be exercised and, in that event, any certificates representing shares of stock that were received by the Company with such written notice shall be returned to such optionee, together with notice by the Company to such optionee of the refusal of the Committee to accept such shares of stock. If, at the expiration of seven business days after the delivery to such optionee of such written notice from the Company, such optionee shall not have delivered to the Company a cashier's check drawn on a national banking association and payable to the order of the Company in an amount, in United States dollars, equal to the Option Price of the shares of stock with respect to which such Option is to be exercised, such written notice from the optionee to the Company shall be ineffective to exercise such Option.

As promptly as practicable after the receipt by the Company of (i) such written notice from the optionee, (ii) payment, in the form required by the foregoing provisions of this Section of the Option Price of the shares of stock with respect to which such Option is to be exercised, and (iii) payment, in the form required by the foregoing provisions of this Section, of an amount of money necessary to satisfy any withholding tax liability that may result from the exercise of such Option, a certificate representing the number of shares of stock with respect to which such Option has been so exercised, such certificate to be registered in the name of such optionee, provided that such delivery shall be considered to have been made when such certificate shall have been mailed, postage prepaid, to such optionee at the address specified for such purpose in such written notice from the optionee to the Company.
G. TRANSFERABILITY OF OPTIONS. Options shall not be transferable by the optionee except by will or under the laws of descent and distribution, and shall be exercisable, during his lifetime, only by him. Any attempted sale, assignment, transfer, pledge or encumbrance of an Option in violation of this Agreement shall be void and the Company shall not be bound thereby.
H. TERMINATION OF EMPLOYMENT OR DEATH OF OPTIONEE. Except as may be otherwise expressly provided herein with respect to an Option that is a Non-Incentive Stock Option, all Options shall terminate on the earlier of the date of the expiration of the Option or one day less than three months after the date of severance, upon severance of the employment relationship between the Company and the optionee, whether with or without cause, for any reason other than the death, Disability or, in the case of Non-Incentive Stock Options only, Retirement of the optionee, during which period the optionee shall be entitled to exercise the Option in respect of the number of shares that the optionee would have been entitled to purchase had the optionee exercised the Option on the date of such severance of employment. Whether authorized leave of absence, or absence on military or government service, shall constitute severance of the employment relationship between the Company and the optionee shall be
determined by the Committee at the time thereof. In the event of severance because of the Disability of the holder of any Incentive Stock Option while in the employ of the Company and before the date of expiration of such Incentive Stock Option, such Incentive Stock Option shall terminate on the earlier of such date of expiration or one year following the date of such severance because of Disability, during which period the optionee shall be entitled to exercise the Incentive Stock Option in respect to the number of shares that the optionee would have been entitled to purchase had the optionee exercised the Incentive Stock Option on the date of such severance because of Disability. In the event of the death of the holder of any Incentive Stock Option while in the employ of the Company and before the date of expiration of such Incentive Stock Option, such Incentive Stock Option shall terminate on the earlier of such date of expiration or one year following the date of death. After the death of the optionee, his executors, administrators or any person or persons to whom his Incentive Stock Option may be transferred by will or by the laws of descent and distribution, shall have the right, at any time prior to the termination of an Incentive Stock Option to exercise the Incentive Stock Option, in respect to the number of shares that the optionee would have been entitled to exercise if he had exercised the Incentive Stock Option on the date of his death while in employment. For purposes of Incentive Stock Options issued under this Plan, an employment relationship between the Company and the optionee shall be deemed to exist during any period in which the optionee is employed by the Company, a corporation issuing or assuming an option in a transaction to which Section 424(a) of the Code applies, or a parent or subsidiary corporation of such corporation issuing or assuming an option. For this purpose, the phrase "corporation issuing or assuming an option" shall be substituted for the word "Company" in the definitions of parent and subsidiary corporations in Section 5 and the parent-subsidiary relationship shall be determined at the time of the corporate action described in Section $424(a)$ of the Code.

In the event of the death, Disability, or Retirement of a holder of a Non-Incentive Stock Option, before the date of expiration of such Non-Incentive Stock Option, such Non-Incentive Stock Option shall continue fully in effect, including provisions providing for subsequent vesting of such Option, and shall terminate on the date of expiration of the Non-Incentive Stock Option. After the death of the optionee, his executors, administrators or any person or persons to whom his Non-Incentive Stock Option may be transferred by will or by the laws of descent and distribution, shall have the right, at any time prior to the termination of the Non-Incentive Stock Option to exercise the Non-Incentive Stock Option, in respect to the number of shares that the optionee would have been entitled to exercise if he were still alive. Notwithstanding the foregoing provisions of this Section, in the case of a Non-Incentive Stock Option the Committee may provide for a different option termination date in the Option Agreement with respect to such Option.
I. NO RIGHTS AS STOCKHOLDER. No optionee shall have rights as a stockholder with respect to shares covered by his Option until the date a stock certificate is issued for the shares. Except as provided in the following provisions of this Section 7, no adjustment for dividends, or other matters shall be made if the record date is prior to the date the certificate is issued.
J. CHANGES IN THE COMPANY'S CAPITAL STRUCTURE. The existence of outstanding Options shall not affect in any way the right or power of the Company or its stockholders to make or authorize any or all adjustments, recapitalizations, reorganizations or other changes in the Company's capital structure or its business, or any merger or consolidation of the Company, or any issue of bonds, debentures, preferred or prior preference stock ahead of or affecting the Common Stock or the rights thereof, or the dissolution or liquidation of the Company, or any sale or transfer of all or any part of its assets or business, or any other corporate act or proceeding, whether of a similar character or otherwise.

If the Company shall effect a subdivision or consolidation of shares or other capital adjustment of, or the payment of a dividend in capital stock or other equity securities of the Company on, its Common Stock, or other increase or reduction of the number of shares of the Common Stock outstanding without receiving consideration therefor in money, services, or property, or the reclassification of its Common Stock, in whole or in part, into other equity securities of the Company, then (a) the number, class and per share price of shares of stock subject to outstanding Options hereunder shall be appropriately adjusted (or in the case of the issuance of other equity securities as a dividend on, or in a reclassification of, the Common Stock, the Options shall extend to such other securities) in such a manner as to entitle an optionee to receive, upon exercise of an option, for the same aggregate cash compensation, the same total number and class or classes of shares (or in the case of a dividend of, or reclassification into, other equity securities, such other securities) he would have held after such
adjustment if he had exercised his Option in full immediately prior to the event requiring the adjustment, or, if applicable, the record date for determining shareholders to be affected by such adjustment; and (b) the number and class of shares then reserved for issuance under the Plan (or in the case of a dividend of, or reclassification into, other equity securities, such other securities) shall be adjusted by substituting for the total number and class of shares of stock then received, the number and class or classes of shares of stock (or in the case of a dividend on, or reclassification into, other equity securities, such other securities) that would have been received by the owner of an equal number of outstanding shares of Common Stock as the result of the event requiring the adjustment. Comparable rights shall accrue to each optionee in the event of successive subdivisions, consolidations, capital adjustment, dividends or reclassifications of the character described above.

If the Company shall distribute to all holders of its shares of Common Stock (including any such distribution made to non-dissenting shareholders in connection with a consolidation or merger in which the Company is the surviving corporation and in which holders of shares of Common Stock continue to hold shares of Common Stock after such merger or consolidation) evidences of indebtedness or cash or other assets (other than cash dividends payable out of consolidated retained earnings not in excess of, in any one year period, the greater of (a) $\$ 1.00$ per share of Common Stock or (b) two times the aggregate amount of dividends per share paid during the preceding calendar year and dividends or distributions payable in shares of Common Stock or other equity securities of the Company described in the immediately preceding paragraph), then in each case the Option Price shall be adjusted by reducing the Option Price in effect immediately prior to the record date for the determination of stockholders entitled to receive such distribution by an amount equal to the Fair Market Value, as determined in good faith by the Board (whose determination shall be described in a statement filed in the Company's corporate records and be available for inspection by any holder of an Option) of the portion of the evidence of indebtedness or cash or other assets so to be distributed applicable to one share of Common Stock; provided that in no event shall the Option Price be less than the par value of a share of Common Stock. Such adjustment shall be made whenever any such distribution is made, and shall become effective on the date of the distribution retroactive to the record date for the determination of the stockholders entitled to receive such distribution. Comparable adjustments shall be made in the event of successive transactions of the character described above.

If the Company shall make a tender offer for, or grant to all of its holders of its shares of Common Stock the right to require the Company or any subsidiary of the Company to acquire from such stockholders shares of, Common Stock, at a price in excess of the Current Market Price (a "Put Right") or the Company shall grant to all of its holders for its shares of Common Stock the right to acquire shares of Common Stock for less than the Current Market Price (a "Purchase Right"), then, in the case of a Put Right, the Option Price shall be adjusted by multiplying the Option Price in effect immediately prior to the record date for the determination of stockholders entitled to receive such Put Right by a fraction, the numerator of which shall be the number of shares of Common Stock then outstanding minus the number of shares of Common Stock which could be purchased at the Current Market Price for the aggregate amount which would be paid if all Put Rights are exercised and the denominator of which is the number of shares of Common Stock which would be outstanding if all Put Rights are exercised; and, in the case of a Purchase Right, the Option Price shall be adjusted by multiplying the Option Price in effect immediately prior to the record date for the determination of the stockholders entitled to receive such Purchase Right by a fraction, the numerator of which shall be the number of shares of Common Stock then outstanding plus the number of shares of Common Stock which could be purchased at the Current Market Price for the aggregate amount which would be paid if all Purchase Rights are exercised and the denominator of which is the number of shares of Common Stock which would be outstanding if all Purchase Rights are exercised. In addition, the number of shares subject to the Option shall be increased by multiplying the number of shares then subject to the Option by a fraction which is the inverse of the fraction used to adjust the Option Price. Notwithstanding the foregoing if any such Put Rights or Purchase Rights shall terminate without being exercised, the Option Price and number of shares subject to the Option shall be appropriately readjusted to reflect the Option Price and number of shares subject to the Option which would have been in effect if such unexercised Rights had never existed. Comparable adjustments shall be made in the event of successive transactions of the character described above.

After the merger of one or more corporations into the Company, after any consolidation of the Company and one or more corporations, or after any other corporate transaction described in

Section 424(a) of the Code in which the Company shall be the surviving corporation, each optionee, at no additional cost, shall be entitled to receive, upon any exercise of his Option, in lieu of the number of shares as to which the Option shall then be so exercised, the number and class of shares of stock or other equity securities to which the optionee would have been entitled pursuant to the terms of the agreement of merger or consolidation if at the time of such merger or consolidation such optionee had been a holder of a number of shares of Common Stock equal to the number of shares as to which the Option shall then be so exercised and, if as a result of such merger, consolidation or other transaction, the holders of Common Stock are not ntitled to receive any shares of Common Stock pursuant to the terms thereof, each optionee, at no additional cost shall be entitled to receive, upon exercise of his Option, such other assets and property, including cash to which he would have been entitled if at the time of such merger, consolidation or other transaction he had been the holder of the number of shares of Common Stock equal to the number of shares as to which the Option shall then be so exercised. Comparable rights shall accrue to each optionee in the event of successive mergers or consolidations of the character described above.

After a merger of the Company into one or more corporations, after a consolidation of the Company and one or more corporations, or after any ther corporate transaction described in Section 424(a) of the Code in which the Company is not the surviving corporation, each optionee shall, at no additional cost, be entitled at the option of the surviving corporation (i) to have his then existing Option assumed or have a new option substituted for the existing Option by the surviving corporation to the transaction which is then employing him, or a parent or subsidiary of such corporation, on a basis where the excess of the aggregate fair market value of the shares subject to the option immediately after the substitution or assumption over the aggregate Option Price of such option is equal to the excess of the aggregate fair market value of all shares subject to the option immediately before such substitution or assumption over the aggregate Option Price of such shares, provided that the shares subject to the new option must be traded on the New York or American Stock Exchange or quoted on the National Association of Securities Dealers Automated Quotation System, or (ii) to receive, upon any exercise of his Option, in lieu of the number of shares as to which the Option shall then be so exercised, the securities, property and other assets, including cash, to which the optionee would have been entitled pursuant to the terms of the agreement of merger or consolidation or the agreement giving rise to the other corporate transaction if at the time of such merger, consolidation or other transaction such optionee had been the holder of the number of shares of Common Stock equal to the number of shares as to which the Option shall then be so exercised.

If a corporate transaction described in Section 424(a) of the Code which involves the Company is to take place and there is to be no surviving corporation while an Option remains in whole or in part unexercised, it shall be canceled by the Board as of the effective date of any such corporate transaction but before that date each optionee shall be provided with a notice of such cancellation and each optionee shall have the right to exercise such Option in full (without regard to any vesting limitations set forth in or imposed pursuant to preceding provisions of this Plan or the option agreement with respect to such Option) to the extent it is then still unexercised during a 30 -day period preceding the effective date of such corporate transaction.

For purposes of this Section, Current Market Price per share of Common Stock shall mean the last reported price for the Common Stock in the New York Stock Exchange -- Composite Transaction listing on the trading day immediately preceding the first trading day on which, as a result of the establishment of a record date or otherwise, the trading price reflects that an acquiror of Common Stock in the public market will not participate in or receive the payment of any applicable dividend or distribution; provided, however, that if there is no closing price for the stock as so reported on that date or if, in the discretion of the Committee, another means of determining the fair value of the shares of stock at such date shall be necessary or advisable, the Committee may provide for another means for determining the Current Market Price of the Common Stock.

Except as hereinbefore expressly provided, the issue by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, for cash or property, or for labor or services either upon direct sale or upon the exercise of rights or warrants to subscribe therefor, or upon conversion of shares or obligations of the Company convertible into such shares or other securities, shall not affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares of Common Stock then subject to outstanding Options.
K. SUBSTITUTION OPTIONS. Options may be granted under this Plan from time to time in substitution for stock options held by employees of other corporations who are about to become employees of the Company, or whose employer is about to become a parent or subsidiary corporation, conditioned in the case of an incentive stock option upon the employee becoming an employee as the result of a merger or consolidation of the Company with another corporation, or the acquisition by the Company of substantially all the assets of another corporation, or the acquisition by the Company of at least $50 \%$ of the issued and outstanding stock of another corporation as the result of which it becomes a subsidiary of the Company. The terms and conditions of the substitute Options granted may vary from the terms and conditions of this Plan to the extent the Board at the time of grant may deem appropriate to conform, in whole or in part, to the provisions of the stock options in substitution for which they are granted. But with respect to stock options which are incentive stock options, no variation shall be made which will affect the status of any substitute option as an "incentive stock option" under Section 422 of the Code.

## SECTION 8. RESTRICTED STOCK AWARDS

A. AWARDS. The Committee may make an Award of Restricted Stock to selected eligible Employees. The amount of each Restricted Stock Award and the respective terms and conditions of each Award (which terms and conditions need not be the same in each case) shall be determined by the Committee in its sole discretion. However, the terms and conditions of an Award shall not be inconsistent with the terms of the Plan.
B. TRANSFERABILITY AND RIGHTS WITH RESPECT TO RESTRICTED

STOCK. Except as provided herein, Restricted Stock may not be sold, assigned, transferred, pledged, or otherwise encumbered during a Restricted Period. Any attempted sale, assignment, transfer, pledge or encumbrance of Restricted Stock in violation of this Plan shall be void and the Company shall not be bound thereby.

During the Restricted Period, certificates representing the Restricted Stock and any Retained Distributions shall be registered in the recipient's name and bear a restrictive legend to the effect that ownership of such Restricted Stock (and any such Retained Distributions), and the enjoyment of all rights appurtenant thereto are subject to the restrictions, terms, and conditions provided in this Plan and the applicable Agreement. Such certificates shall be deposited by the recipient with the Company, together with stock powers or other instruments of assignment, each endorsed in blank, which will permit transfer to the Company of all or any portion of the Restricted Stock and any securities constituting Retained Distributions which shall be forfeited in accordance with this Plan and the applicable Agreement. Restricted Stock shall constitute issued and outstanding shares of Common Stock for all corporate purposes.

Subject to the terms of this Plan and the Agreement with respect to the Award, the recipient shall have the right to vote the Restricted Stock awarded to such recipient and to receive and retain all regular cash dividends, and to exercise all other rights, powers and privileges of a holder of Common Stock, with respect to such Restricted Stock, with the exception that (i) the recipient shall not be entitled to delivery of the stock certificate or certificates representing such Restricted Stock until the restrictions applicable thereto shall have expired, (ii) the Company shall retain custody of all Retained Distributions made or declared with respect to the Restricted Stock (and such Retained Distributions shall be subject to the same restrictions, terms and conditions as are applicable to the Restricted Stock) until such time, if ever, as the Restricted Stock with respect to which such Retained Distributions shall have been made, paid, or declared shall have become vested, and such Retained Distributions shall not bear interest or be segregated in separate accounts and (iii) the recipient may not sell, assign, transfer, pledge, exchange, encumber, or dispose of the Restricted Stock or any Retained Distributions during the Restricted Period. Nothing in this Section shall prevent transfers by will or by the applicable laws of descent and distribution.
C. VESTING OF RESTRICTED STOCK. Restricted Stock Awards shall be subject to such vesting restrictions, if any, as the Committee shall determine in its sole discretion; provided that any Restricted Stock Award that is granted to an Employee who is then subject to the reporting and short-swing profit provisions of Section 16 of the Exchange Act and the rules thereunder shall vest no earlier than six months following the date on which the Restricted Stock is deemed awarded for purposes of such provisions.
D. CONSEQUENCE OF VESTING. Subject to Section 9, when shares of Restricted Stock become vested, the Restricted Period shall be terminated as to those shares, and the Company shall deliver to the Restricted Stock Award recipient (or his estate, if applicable) a Common Stock certificate representing those shares and all Retained Distributions made or declared with respect to those shares, reduced as necessary to satisfy the Company's tax withholding obligation.
E. WITHHOLDING TAX. The Company shall meet its tax withholding obligations under the Code and applicable state or local law arising upon the vesting of Restricted Stock by delivering to the Restricted Stock recipient (or his estate, if applicable) a reduced number of shares of Common Stock in the manner specified herein. At the time of vesting of shares of Restricted Stock, the Company shall (i) calculate the amount of withholding tax due on the assumption that all such vested shares of Restricted Stock are made available for delivery, (ii) reduce the number of such shares made available for delivery so that the Fair Market Value of the shares withheld on the vesting date approximates the amount of tax the Company is obliged to withhold and (iii) in lieu of the withheld shares, remit cash to the United States Treasury and other applicable governmental authorities, on behalf of the participant, in the amount of the withholding tax due.

The Company shall withhold only whole shares of Common Stock to satisfy its withholding obligation. Where the Fair Market value of the withheld shares does not equal Company's withholding tax obligation, the Company shall withhold shares with a Fair Market Value slightly in excess of the amount of its withholding obligation and shall remit the excess cash to the Restricted Stock Award recipient (or his estate, if applicable) with the shares of Common Stock made available for delivery.

The withheld shares of Restricted Stock not made available for delivery by the Company shall be retained as treasury stock or will be cancelled and, in either case, the recipient's right, title and interest in such Restricted Stock shall terminate.
F. CHANGES IN COMPANY'S CAPITAL STRUCTURE. In the event that the outstanding shares of Common Stock of the Company are changed into or exchanged for a different number or kind of shares or other securities of the Company, or of another corporation, by reason of reorganization, merger, consolidation, recapitalization, reclassification, stock split, stock dividend, or combination of shares, appropriate adjustments shall be made by the Committee in the aggregate number and kind of shares which may be issued or granted as Awards. If any adjustment shall result in a fractional share, the fraction shall be disregarded.

SECTION 9. REQUIREMENTS OF LAW
The Company shall not be required to sell, issue or deliver any shares of Common Stock under any Award if such sale, issuance or delivery shall constitute a violation by the Award recipient or the Company of any provisions of any law or regulation of any governmental authority. Each Award granted under this Plan shall be subject to the requirements that, if at any time the Board or the Committee shall determine that the listing, registration or qualification of the shares upon any securities exchange or under any state or federal law of the United States or of any other country or governmental subdivision, or the consent or approval of any governmental regulatory body, or investment or other representations, are necessary or desirable in connection with the issue, or purchase or delivery of shares subject to an Award, that Award shall not be exercised in whole or in part and no shares shall be delivered pursuant to an Award unless the listing, registration, qualification, consent, approval or representations shall have been effected or obtained free of any conditions not acceptable to the Committee. Any determination in this connection by the Committee shall be final. In the event the shares issuable or deliverable on exercise or vesting of an Award are not registered under the Securities Act of 1933, the Company may imprint on the certificate for those shares the following legend or any other legend which counsel for the Company considers necessary or advisable to comply with the Securities Act of 1933:
"The shares of stock represented by this certificate have not been registered under the Securities Act of 1933 or under the securities laws of any state and may not be sold or transferred except upon registration or upon receipt by the Corporation of an opinion of counsel satisfactory transfer."

The Company may, but shall in no event be obligated to, register any securities covered by this Plan under the Securities Act of 1933 (as now in effect or as later amended) and, in the event any shares are registered, the Company may remove any legend on certificates representing those shares. The Company shall not be obligated to take any other affirmative action in order to cause the exercise of an Award or the issuance or delivery of shares under the Award to comply with any law or regulation or any governmental authority.

SECTION 10. EMPLOYMENT OBLIGATION
The granting of any Award shall not impose upon the Company any obligation to employ or continue to employ any Award recipient. The right of the Company to terminate the employment of any officer or other Employee shall not be diminished or affected by reason of the fact that an Award has been granted to him.

SECTION 11. FORFEITURE FOR CAUSE
Notwithstanding any other provision of this Plan, if the Committee finds by a majority vote, that the Award recipient, before or after termination of his employment with the Company (a) committed a fraud, embezzlement, theft, felony or act of dishonesty in the course of his employment by the Company which conduct damaged the Company or (b) disclosed trade secrets of the Company, then any outstanding options which have not been exercised by the individual and any Awards which have not yet vested will be forfeited. The decision of the Committee as to the cause of an Award recipient's discharge, the damage done to the Company and the extent of the individual's competitive activity will be final. No decision of the Committee, however, will affect the finality of the discharge of the individual by the Company.

SECTION 12. AMENDMENT OR TERMINATION OF PLAN
The Board may modify, revise or terminate this Plan at any time and from time to time. However, without the further Company stockholder approval by a majority of the votes cast at a duly held stockholders' meeting at which a quorum representing a majority of all outstanding voting stock (or if the provisions of the corporate charter, bylaws or applicable state law prescribe a greater degree of stockholder approval for this action, without the degree of stockholder approval thus required) is, either in person or by proxy, present and voting on the issue, the Board may not (a) increase the aggregate number of shares that may be subject to Awards pursuant to the provisions of this Plan; (b) materially increase the benefits accruing to participants under this Plan or (c) materially modify the requirements as to eligibility for participation in this Plan.

## SECTION 13. WRITTEN AGREEMENT

Each Award granted under this Plan shall be embodied in a written Agreement, which shall be subject to the terms and conditions prescribed above, and shall be signed by the recipient and by the appropriate officer of the Company for and in the name and on behalf of the Company. Each Agreement shall contain any other provisions consistent with this Plan that the Committee in its discretion shall deem advisable.

SECTION 14. INDEMNIFICATION OF THE COMMITTEE
The Company shall indemnify each present and future member of the Committee against, and each member of the Committee shall be entitled without further act on his part to indemnity from the Company for, all expenses (including the amount of judgments and the amount of approved settlements made with a view to the curtailment of costs of litigation, other than amounts paid to the Company itself) reasonably incurred by him in connection with or arising out of any action, suit or proceeding in which he may be involved by reason of his being or having been a member of the Committee, whether or not he continues to be such member of the Committee at the time of incurring such expenses; provided, however, that such indemnity shall not include any expenses incurred by any
such member of the Committee (a) in respect of matters as to which he shall be finally adjudged in any such action, suit or proceeding to have been guilty of gross negligence or willful misconduct in the performance of his duty as such member of the Committee, or (b) in respect of any matter in which any
settlement is effected, to an amount in excess of the amount approved by the Company on the advice of its legal counsel; and provided further, that no right of indemnification under the provisions set forth herein shall be available to or enforceable by any such member of the Committee unless, within sixty (60) days after institution of any such action, suit or proceeding, he shall have offered the Company, in writing, the opportunity to handle and defend the same at its own expense. The foregoing right of indemnification shall inure to the benefit of the heirs, executors or administrators of each such member of the Committee and shall be in addition to all other rights to which such member of the Committee may be entitled to as a matter of law, contract or otherwise. Nothing in this Section shall be construed to limit or otherwise affect any right to indemnification or payment of expense, or any provisions limiting the liability of any officer or director of the Company or any member of the Committee, provided by law, the Certificate of Incorporation of the Company or otherwise.

SECTION 15. SECTION 83(B) ELECTIONS.
No Employee shall exercise the election permitted under Section $83(b)$ of the Code with respect to an Award without written approval of the Committee. If the Committee permits such an election with respect to any Award, the Company shall require the Award recipient to pay the Company an amount necessary to satisfy the Company's tax withholding obligation.

SECTION 16. AWARD GRANT TERMINATION.
No Awards shall be granted pursuant to this Plan after
October 10, 2005.
(In thousands, except per share amounts)

| Income before extraordinary charge |  | 32,890 |  | 33,860 |  | 18,852 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Extraordinary charge - early extinguishment of debt. |  | $(2,522)$ |  | $(2,021)$ |  | - - |
| Net income |  | 30,368 |  | 31,839 |  | 18,852 |
| Preferred dividend requirements |  | - - |  | $(3,957)$ |  | $(5,934)$ |
| Net income attributable to |  |  |  |  |  |  |
| common stockholders |  | 30,368 |  | 27,882 | \$ | 12,918 |
| Weighted average shares |  |  |  |  |  |  |
| outstanding-primary |  | 13,658 |  | 13,580 |  | 13,496 |
| Earnings per common share: |  |  |  |  |  |  |
| Primary: |  |  |  |  |  |  |
| Income before extraordinary charge |  | 2.41 | \$ | 2.20 | \$ | 0.96 |
| Extraordinary charge |  | (0.19) |  | (0.15) |  | -- |
| Earnings per common share |  | 2.22 | \$ | 2.05 | \$ | 0.96 |
| Income before extraordinary charge |  | 32,890 | \$ | 33,860 | \$ | 18,852 |
| Extraordinary charge - early extinguishment of debt |  | $(2,522)$ |  | $(2,021)$ |  | -- |
| Net income |  | 30,368 |  | 31,839 |  | 18,852 |
| Interest on $6.88 \%$ convertible subordinated debentures and amortization of related issuance costs, net of applicable income taxes ......... |  | 3,567 |  | 1,188 |  | - - |
| Adjusted net income |  | 33,935 |  | 33, 027 |  | 18,852 |
| Weighted average shares |  |  |  |  |  |  |
| outstanding-primary |  | 13,658 |  | 13,580 |  | 13,496 |
| Effect of common stock equivalents arising from stock options ..... |  | 231 |  | - - |  | 72 |
| Preferred stock assumed converted to common stock ............... |  | -- |  | 1,825 |  | 2,738 |
| Subordinated debentures assumed |  |  |  |  |  |  |
| converted to common stock |  | 2,696 |  | 899 |  | -- |
| Weighted average shares |  |  |  |  |  |  |
| outstanding-fully diluted |  | 16,585 |  | 16,304 |  | 16,306 |
| Earnings per common share: |  |  |  |  |  |  |
| Assuming full dilution: |  |  |  |  |  |  |
| Earnings before extraordinary charge |  | \$ 2.20 | \$ | 2.15 | \$ | 1.16 |
| Extraordinary charge |  | (0.15) |  | (0.12) |  | - - |
| Earnings per common share | \$ | \$ 2.05 | \$ | 2.03 | \$ | 1.16 |

## SUBSIDIARIES OF QUANEX CORPORATION

LaSalle Steel Company
Michigan Seamless Tube Company
Piper Impact, Inc.
Quanex Metals, Inc
Quanex Wire, Inc.
Quanex Foreign Sales Corporation

## JURISDICTION OF INCORPORATION

Delaware
Delaware
Delaware
Delaware
Delaware
U.S. Virgin Islands

INDEPENDENT AUDITOR'S CONSENT

We consent to the incorporation by reference in Registration Statements No. 33-23474, No. 33-29585, No. 33-22550, No. 33-35128, No. 33-38702, No. 33-46824, No. 33-57235, No.33-54081, No. 33-54085 and No. 33-54087 of Quanex Corporation on Form S-8 of our report dated November 22,1996 appearing in this Annual Report on Form 10-K of Quanex Corporation for the year ended October 31, 1996.
/s/ DELOITTE \& TOUCHE LLP
DELOITTE \& TOUCHE LLP
December 13, 1996

This schedule contains summary financial information extracted from the balance sheet as of October 31, 1996 and the income statement for the year ended October 31, 1996 and is qualified in its entirety by reference to such financial statements.

1, 000

YEAR


718, 206
187,878
895,710
895,710
772,371
772,371
0
10,462
11, 929
56, 707
$32,890^{23,817}$
32,890
0
2,522
30, 368
2.220
2.050

