

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
FORM 11-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 15(d)  
OF THE SECURITIES EXCHANGE ACT OF 1934 (NO FEE REQUIRED)

For the fiscal year ended December 31, 1996

OR

TRANSITION REPORT PURSUANT TO SECTION 15(d)  
OF THE SECURITIES EXCHANGE ACT OF 1934 (NO FEE REQUIRED)

For the transition period from \_\_\_\_\_ to \_\_\_\_\_.

Commission File Number 1-5725

A. Full title of the plan and the address of the plan, if different from that of the issuer name below:

Nichols-Homeshield 401(k) Savings Plan

B. Name of issuer of the securities held pursuant to the plan and the address of its principal executive office:

Quanex Corporation  
1900 West Loop South, Suite 1500  
Houston, Texas 77027  
(713) 961-4600

## INDEPENDENT AUDITORS' REPORT

The Benefits Committee  
Quanex Corporation  
Houston, Texas

Re: Nichols-Homeshield 401(k) Savings Plan

We have audited the accompanying statements of net assets available for benefits of the Nichols-Homeshield 401(k) Savings Plan (the "Plan") as of December 31, 1996 and 1995, and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements 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 financial statements present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 1996 and 1995, and the changes in net assets available for benefits for the years then ended in conformity with generally accepted accounting principles.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The accompanying supplemental schedules of (1) investments as of December 31, 1996 and (2) 5% reportable transactions for the year ended December 31, 1996 are presented for the purpose of additional analysis and are not a required part of the basic financial statements, but are supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. These schedules are the responsibility of the Plan's management. Such schedules have been subjected to the auditing procedures applied in our audit of the basic 1996 financial statements and, in our opinion, are fairly stated in all material respects when considered in relation to the basic financial statements taken as a whole.

/s/ DELOITTE & TOUCHE LLP

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DELOITTE & TOUCHE LLP

May 9, 1997

QUANEX CORPORATION  
NICHOLS-HOMESHIELD 401(k) SAVINGS PLAN  
STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

	December 31,	
	----- 1996	1995 -----
Investments at fair value:		
Mutual fund assets:		
Fidelity Puritan Fund	\$ 368,260	\$ 127,812
Fidelity Magellan Fund	4,613,459	4,590,045
Fidelity Contrafund	3,436,148	2,281,286
Fidelity Growth & Income Fund	5,722,217	4,483,709
Fidelity Overseas Fund	339,269	495,052
Fidelity Balanced Fund	1,441,746	1,255,353
Fidelity Government Money Market Fund	6,587,993	6,416,031
Templeton Foreign Fund	58,309	-
Quanex Corporation common stock	518,125	611,774
Common/commingled trust	764,169	439,555
Loans to participants	1,067,089	752,684
	-----	-----
Total investments	24,916,784	21,453,301
	-----	-----
Contributions Receivable:		
Employer	96,848	102,285
Employee	126,604	139,177
	-----	-----
Total	223,452	241,462
	-----	-----
Net assets available for benefits	\$25,140,236	\$21,694,763
	=====	=====

See notes to financial statements

QUANEX CORPORATION  
NICHOLS-HOMESHIELD 401(k) SAVINGS PLAN

STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE  
FOR BENEFITS

	December 31,	
	1996	1995
	-----	-----
Investment income:		
Interest and dividends	\$ 1,760,124	\$ 1,135,097
Net appreciation in fair value of investments	1,044,037	2,291,096
	-----	-----
Total income	2,804,161	3,426,193
	-----	-----
Contributions:		
Employer	1,302,003	1,202,902
Less forfeitures	34,342	25,176
	-----	-----
	1,267,661	1,177,726
	-----	-----
Employee	1,464,390	1,496,737
	-----	-----
Total contributions	2,732,051	2,674,463
	-----	-----
Interest on participant loans	69,555	61,206
	-----	-----
Total additions	5,605,767	6,161,862
	-----	-----
Benefit payments	2,154,169	1,643,823
Administrative fees	6,125	4,918
	-----	-----
Total deductions	2,160,294	1,648,741
	-----	-----
Increase in net assets available for benefits	3,445,473	4,513,121
Net assets available for benefits:		
Beginning of year	21,694,763	17,181,642
	-----	-----
End of year	\$25,140,236	\$21,694,763
	=====	=====

See notes to financial statements

QUANEX CORPORATION  
NICHOLS-HOMESHIELD 401(K) SAVINGS PLAN

NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED DECEMBER 31, 1996 AND 1995

A. DESCRIPTION OF THE PLAN

The following description of the Nichols-Homeshield 401(k) Savings Plan (the "Plan") is provided for general information purposes only. Participants should refer to the Plan document for more complete information.

- (1) General. The Plan was established on October 1, 1987, and was amended and restated effective January 1, 1989, as a defined contribution plan under Section 401(k) of the Internal Revenue Code ("IRC") which covers substantially all salaried and non-union hourly employees at the Nichols-Homeshield division of Quanex Corporation (the "Company") and bargaining unit employees at the Lincolnshire, Illinois plant. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 ("ERISA"). The assets of the Plan are held in trust by Fidelity Management Trust Company ("Fidelity" or the "Trustee"). The Benefits Committee (the "Committee"), appointed by the Company's Board of Directors, serves as the Plan administrator.
- (2) Contributions. Employees are eligible to make salary deferral contributions to the Plan on the entry date next following the date that the employee completes one month of service. Participants may elect salary deferrals between 1% and 15% of compensation as defined by the Plan agreement. The Company makes contributions on behalf of employees who have at least one year of service. The Company contribution is based on Company profits and is calculated based on a percentage of the employee's compensation.
- (3) Participant Accounts. Each participant's account is credited with the participant's contribution, the employer's contribution, and an allocation of investment income. Investment income allocations are based upon individual participant account balances as of the end of the period in which the income was earned.
- (4) Investment Options. Participants may direct allocation of their contributions to investment funds and Quanex stock as follows:
  - Government Money Market Fund - composed of short-term government obligations.
  - Balanced Fund - invested and reinvested in common and preferred stocks and bonds.
  - Growth and Income Fund - invested and reinvested in equity and debt securities of foreign and domestic companies.
  - Magellan Fund - invested and reinvested in equity and debt securities of foreign and domestic companies.
  - Contrafund - invested and reinvested in equities of foreign and domestic companies.
  - Overseas Fund - invested and reinvested in foreign securities.
  - Puritan Fund - invested and reinvested in common and preferred stocks and bonds.
  - Templeton Foreign Fund - invested and reinvested in foreign securities.
  - Quanex Corporation Common Stock - invested and reinvested exclusively in the common stock of Quanex Corporation.
  - Common/Commingled Trust - invested and reinvested in investment contracts issued by insurance companies, banks and other financial institutions.

- (5) Vesting. Participants are immediately vested in their voluntary contributions and earnings thereon. Vesting in the employer contribution is based on years of credited service. A participant is 20% vested for each year of credited service and fully vested after five years. If a participant terminates employment prior to becoming fully vested, the nonvested portion of the employer contributions are immediately forfeited by the participant and utilized to reduce future employer contributions.
- (6) Payment of Benefits. The Plan is intended for long-term savings but provides for early withdrawals and loan arrangements under certain conditions. Upon termination of service, a participant may elect to receive a cash lump-sum distribution equal to the amount of vested benefits in his or her account. As of December 31, 1996 and 1995, net assets available for benefits included benefits of \$22,530 and \$69,484, respectively, due to participants who have withdrawn from participation in the Plan.
- (7) Loans. Loans may be granted to a participant of the Plan at the Committee's discretion. Any loan authorized by the Committee shall be subject to a term not to exceed five years. The Committee may agree to a longer term (up to seven years) only if the proceeds of the loan are to be used to purchase a dwelling. The loans bear a reasonable rate of interest established by the Committee. Interest on the loan is allocated to the borrower's participant account.

(B) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

- (1) Accounting Basis. The financial statements of the Plan are prepared on the accrual basis of accounting in accordance with generally accepted accounting principles.
- (2) Administrative Expenses. Administrative expenses of the Plan are paid by the Company. Loan set up fees and carrying fees are paid by the participant.
- (3) Investment Valuation. The Plan recognizes net appreciation or depreciation in the fair value of its investments. Investments are reflected at fair value in the financial statements. Fair value of mutual fund assets is determined using a quoted net asset value. Fair value for Quanex Corporation common stock, which is listed on the New York Stock Exchange, is determined by using the last recorded sales price. The fair value of the common/commingled trust is at face value.
- (4) Use of Estimates. The preparation of financial statements in conformity with generally accepted accounting principles requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of changes in the net assets available for benefits during the reporting period. The Plan's financial statements include amounts that are based on management's best estimates and judgments. Actual results could differ from those estimates.
- (5) Payment of Benefits. Benefit payments are recorded when paid.

(C) PLAN TERMINATION

Although it has not expressed any intention to do so, the Company has the right under the Plan to terminate the Plan at any time subject to the provisions set forth in ERISA. In the event of plan termination, the assets held by the Trustee under the Plan will be valued and fully vested, and each participant will be entitled to distributions respecting his or her account.

(D) FEDERAL INCOME TAX STATUS

The Plan is subject to specific rules and regulations related to employee benefit plans under the Department of Labor and the Internal Revenue Service ("IRS"). The Plan is a qualified trust under Sections 401(a) and 401(k) of the Internal Revenue Code (the "Code") and, as a result, is exempt from taxation under Sections 501(a) of the Code. The Plan received a favorable determination letter from the IRS dated December 22, 1994. The Company believes that the Plan is currently designed and being operated in compliance with the applicable requirements of the Code. Therefore, it believes the Plan was qualified and the related trust was tax-exempt as of the financial statement dates.

## E. RELATED PARTY TRANSACTIONS

During the years ended December 31, 1996 and 1995, the Plan purchased and sold shares of Quanex Corporation common stock, as shown below:

	1996			1995		
	Shares	Cost	Sales Price	Shares	Cost	Sales Price
	-----	-----	-----	-----	-----	-----
Purchases	6,087	\$145,904		21,420	\$410,186	
Sales	18,735	370,590	\$435,319	121	2,554	\$ 2,618

During the years ended December 31, 1996 and 1995, the Plan purchased and sold shares of Fidelity mutual funds, as shown below:

	1996			1995		
	Shares	Cost	Sales Price	Shares	Cost	Sales Price
	-----	-----	-----	-----	-----	-----
Purchases	2,158,747	\$12,577,957		2,217,167	\$9,843,629	
Sales	1,918,003	10,179,781	\$10,508,116	2,500,093	7,931,353	\$8,215,994

During the years ended December 31, 1996 and 1995, the Plan purchased and sold shares of Fidelity Common/Commingled Trust, as shown below:

	1996			1995		
	Shares	Cost	Sales Price	Shares	Cost	Sales Price
	-----	-----	-----	-----	-----	-----
Purchases	5,950,598	\$5,950,598		3,458,959	\$3,458,959	
Sales	5,625,983	5,625,983	\$5,625,983	3,320,803	3,320,803	\$3,320,803

## F. SUPPLEMENTAL FUND INFORMATION

Contributions, benefit payments and investment income by fund were as follows for the years ended December 31:

	1996	1995
	-----	-----
Employee Contributions:		
Fidelity Puritan Fund	\$ 24,360	\$ 34,362
Fidelity Magellan Fund	339,683	353,686
Fidelity Contrafund	220,724	236,354
Fidelity Growth and Income Fund	333,733	297,674
Fidelity Overseas Fund	41,056	35,253
Fidelity Balanced Fund	129,715	157,288
Fidelity Government Money Market Fund	303,711	314,095
Templeton Fund	4,847	-
Quanex Corporation common stock	28,928	19,116
Common/commingled trust	37,633	48,909
	-----	-----
	\$1,464,390	\$1,496,737
	=====	=====

	1996	1995
	-----	-----
Employer Contributions:		
Fidelity Puritan Fund	\$ 20,637	\$ 17,977
Fidelity Magellan Fund	268,954	265,178
Fidelity Contrafund	182,916	164,793
Fidelity Growth and Income Fund	247,719	221,139
Fidelity Overseas Fund	24,525	18,633
Fidelity Balanced Fund	121,618	141,918
Fidelity Government Money Market Fund	345,797	312,536
Templeton Foreign Fund	2,311	-
Quanex Corporation common stock	25,760	16,809
Common/commingled trust	27,424	18,743
	-----	-----
	\$1,267,661	\$1,177,726
	=====	=====



	1996	1995
	-----	-----
Benefit payments:		
Fidelity Puritan Fund	\$ 42,523	\$ 4,042
Fidelity Magellan Fund	393,328	395,607
Fidelity Contrafund	73,823	209,350
Fidelity Growth and Income Fund	455,730	348,748
Fidelity Overseas Fund	121,544	402
Fidelity Balanced Fund	197,261	24,874
Fidelity Government Money Market Fund	842,522	659,346
Templeton Foreign Fund	-	-
Quanex Corporation common stock	11,667	122
Common/commingled trust	15,771	1,332
	-----	-----
	\$2,154,169	\$1,643,823
	=====	=====

	1996	1995
	-----	-----
Investment income:		
Fidelity Puritan Fund	\$ 39,483	\$ 19,349
Fidelity Magellan Fund	483,131	1,151,140
Fidelity Contrafund	573,106	525,713
Fidelity Growth and Income Fund	937,521	1,147,352
Fidelity Overseas Fund	74,008	51,666
Fidelity Balanced Fund	118,163	156,063
Fidelity Government Money Market Fund	331,052	362,824
Templeton Foreign Fund	5,015	-
Quanex Corporation common stock	210,499	(21,219)
Common/commingled trust	32,183	33,305
	-----	-----
	\$ 2,804,161	\$ 3,426,193
	=====	=====

ITEM 27A - SCHEDULE OF ASSETS HELD FOR INVESTMENT PURPOSES  
 EIN: 38-1872178; PN 017

QUANEX CORPORATION  
 NICHOLS-HOMESHIELD 401(K) SAVINGS PLAN

SUPPLEMENTAL SCHEDULE OF INVESTMENTS  
 DECEMBER 31, 1996

	Shares/ Par Value -----	Cost ----	Current Value -----
Mutual Fund Assets - Fidelity Investments: -----			
Contrafund*	81,522	\$ 2,842,393	\$ 3,436,148
Government Money Market Fund*	6,587,993	6,587,993	6,587,993
Puritan Fund*	21,361	363,973	368,260
Growth and Income Fund*	186,209	4,377,320	5,722,217
Magellan*	57,203	4,188,048	4,613,459
Overseas Fund*	11,001	319,150	339,269
Balanced Fund*	102,397	1,343,059	1,441,746
Templeton Foreign Fund*	5,628	55,431	58,309
Total mutual fund assets		----- 20,077,367	----- 22,567,401
Quanex Corporation common stock*	18,927	422,598	518,125
Common/commingled trust*	764,169	764,169	764,169
Participant loans (bearing interest rates from 7.85% to 11%)		1,067,089	1,067,089
Total investments		----- \$22,331,223 =====	----- \$24,916,784 =====

\*Party-in-Interest

NICHOLS-HOMESHIELD 401(K) SAVINGS PLAN

SUPPLEMENTAL SCHEDULE OF 5% REPORTABLE TRANSACTIONS  
 FOR THE YEAR ENDED DECEMBER 31, 1996

Single Transactions  
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Description	Total Number of Purchases During Plan Year	Purchase Price	Total Number of Sales During Plan Year	Selling Price	Cost of Asset	Current Value on Transaction Date	Net Gain (Loss)
None							

Series of Transactions  
 -----

Description	Total Number of Purchases During Plan Year	Purchase Price	Total Number of Sales During Plan Year	Selling Price	Cost of Asset	Current Value on Transaction Date	Net Gain (Loss)
*Magellan Fund	124	\$1,599,339	94	\$1,345,826	\$1,279,285	\$1,345,826	\$ 66,541
*Contrafund	112	1,225,157	58	378,427	331,323	378,427	47,104
*Growth & Income Fund	130	1,365,280	80	784,945	626,404	784,945	158,541
*Overseas Fund	84	5,737,666	41	5,947,091	5,904,611	5,947,091	42,480
*Government Money Market Fund	109	1,809,772	94	1,637,810	1,637,810	1,637,810	0
*Common/Commingled Trust	86	5,950,598	55	5,625,983	5,625,983	5,625,983	0
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*Party-in-interest							

SIGNATURES

The Plan. Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

Nichols-Homeshield 401(k) Savings Plan

Date: June 24, 1997

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/s/ Joseph K. Peery

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Joseph K. Peery, Benefits Committee

23.1 Independent Auditor's Consent

## INDEPENDENT AUDITOR'S CONSENT

We consent to the incorporation by reference in Registration Statement No. 33-54081 of Quanex Corporation on Form S-8 of our report dated May 9, 1997 appearing in the Annual Report on Form 11-K of the Nichols-Homeshield, Inc. 401(k) Savings Plan for the year ended December 31, 1996.

/s/ DELOITTE & TOUCHE LLP  
DELOITTE & TOUCHE LLP

Houston, Texas  
June 24, 1997