SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 11-K

x Annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934

For the fiscal year ended December 31, 2006

Commission File Number 1-5725

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

Quanex Corporation Hourly Bargaining Unit Employees Savings Plan

B. Name of the 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, TX 77027

QUANEX CORPORATION HOURLY BARGAINING UNIT EMPLOYEES SAVINGS PLAN

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SUPPLEMENTAL SCHEDULES:

Form 5500, Schedule H, Part IV, Line 4i—Schedule of Assets (Held at End of Year) as of December 31, 2006

NOTE: All other schedules required by Section 2520.103-10 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 have been omitted because they are not applicable

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Benefits Committee Quanex Corporation

Re: Quanex Corporation Hourly Bargaining Unit Employees Savings Plan

We have audited the accompanying statements of net assets available for benefits of Quanex Corporation Hourly Bargaining Unit Employees Savings Plan (the "Plan") as of December 31, 2006 and 2005, 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 auditing standards generally accepted in the United States of America. 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 consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, 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, 2006 and 2005, and the changes in net assets available for benefits for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of assets (held at end of year) at December 31, 2006 is presented for the purpose of additional analysis and are not a required part of the basic financial statements but is 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. The supplemental schedule is the responsibility of the Plan's management. Such supplemental schedule haa been subjected to the auditing procedures applied in our audits of the basic financial statements and, in our opinion, is fairly stated in all material respects when considered in relation to the basic financial statements taken as a whole.

As discussed in Note B to the financial statements, the Plan adopted FASB Staff Position AAG INV-1 and SOP 94-4-1, *Reporting of Fully Benefit-Responsive Contracts Held by Certain Investment Companies Subject to the AICPA Investment Company Guide and Defined-Contribution Health and Welfare and Pension Plans*, for the years ended December 31, 2006 and 2005.

As discussed in Note B, the financial statements include investments valued at \$656,734 and \$916,465 as of December 31, 2006 and 2005, respectively, whose fair values have been calculated by management based on adjustment factors and other information provided by the fund managers or trustee.

/s/DELOITTE & TOUCHE LLP

DELOITTE & TOUCHE LLP June 21, 2007

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QUANEX CORPORATION HOURLY BARGAINING UNIT EMPLOYEES SAVINGS PLAN

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS AS OF DECEMBER 31, 2006 AND 2005

ASSETS:	_	2006	 2005
Investments—at fair value:			
Participant-directed investments	\$	24,385,648	\$ 21,489,539
Receivables:			
Participant contributions		168,627	200,179
NET ASSETS AVAILABLE FOR BENEFITS AT FAIR VALUE		24,554,275	21,689,718
Adjustments from fair value to contract value for fully benefit-responsive investment contracts		6,600	10,404
NET ASSETS AVAILABLE FOR BENEFITS	\$	24,560,875	\$ 21,700,122

See notes to financial statements.

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QUANEX CORPORATION HOURLY BARGAINING UNIT EMPLOYEES SAVINGS PLAN

STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS FOR THE YEAR ENDED DECEMBER 31, 2006 AND 2005

ADDITIONS:	 2006	 2005
Contributions:		
Participant contributions	\$ 2,583,173	\$ 2,428,862
Investment income:		
Net appreciation (depreciation) in fair value of investments	(495,667)	639,263
Interest and Dividends	2,298,559	850,551
Net investment income	 1,802,892	 1,489,814
Interest on Participant Loans	 (37)	 290
Total Additions	 4,386,028	 3,918,966

DEDUCTIONS:		
Benefits paid to participants	1,462,339	1,514,550
Administrative expenses	79	99
Total deductions	1,462,418	1,514,649
TRANSFERS BETWEEN PLANS	(62,857)	(423,330)
INCREASE IN NET ASSETS	2,860,753	1,980,987
NET ASSETS AVAILABLE FOR BENEFITS:		
Beginning of year	21,700,122	19,719,135
End of year	\$ 24,560,875	\$ 21,700,122

See notes to financial statements.

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QUANEX CORPORATION HOURLY BARGAINING UNIT EMPLOYEES SAVINGS PLAN

NOTES TO FINANCIAL STATEMENTS AS OF DECEMBER 31, 2006 AND 2005, AND FOR THE YEAR ENDED DECEMBER 31, 2006

A. DESCRIPTION OF THE PLAN

The following brief description of the Quanex Corporation Hourly Bargaining Unit Employee Savings Plan (the "Plan") provides only general information. Participants should refer to the Plan agreement for more complete information.

- (1) <u>General</u>. The Plan is a defined contribution plan which covers hourly paid union employees of the MACSTEEL locations of the Quanex Corporation (the "Company"). The Plan is subject to the Employee Retirement Income Security Act of 1974 ("ERISA"). Fidelity Management Trust Company ("Fidelity" or the "Trustee") holds the assets of the Plan in trust. The Benefits Committee (the "Committee"), appointed by the Company's Board of Directors, serves as the Plan administrator.
- (2) <u>Contributions</u>. Participants may elect to contribute up to 50% of their compensation as defined by the Plan, subject to certain Internal Revenue Code ("IRC") limitations, on either a pre-tax or after-tax basis.
- (3) <u>Participants Account</u>. Individual accounts are maintained for each Plan participant. Each participant's account is credited with the participant's contribution and the participant's pro rata share of investment earnings. Participant accounts are also charged with withdrawals, administrative expenses and an allocation of any Plan losses. Investment earnings and losses allocations are based on individual participant account balances as of the end of the period in which the income is earned. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.
- (4) <u>Investments</u>. Participants direct the investment of contributions into various investment options offered by the Plan. The Plan currently offers 33 mutual funds, a common/commingled trust and unitized Quanex stock as investment options for participants.
- (5) <u>Vesting</u>. Participants are immediately vested in their contributions and the related earnings.
- (6) <u>Payment of Benefits</u>. The Plan is intended for long-term savings but provides for early withdrawals and loan arrangements under certain conditions. Upon termination of service, the participant may elect to receive a lump-sum amount equal to the amount of vested benefits in his or her account. Terminated employees with an account balance of less than \$1,000 will automatically receive a lump sum distribution (\$5,000 before March 28, 2005).
- (7) <u>Participant Loans</u>. No loans shall be made to participants under the Plan. Employees of MACSTEEL Monroe, Inc. who had a loan outstanding under the Cargill Partnership Plan on December 31, 2003 were allowed to roll over the loan to the Plan. Loans' mature within 4 to 5 years and bear interest at 5% to 5.75%.
- B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES
 - (1) <u>Accounting Basis</u>. The financial statements of the Plan are prepared on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America.

(2) <u>Investment Valuation</u>. Investments are reflected at fair value in the financial statements. The Plan recognizes net appreciation or depreciation in the fair value of its investments. Shares of mutual funds are valued at quoted market prices, which represent the net asset value of shares held by the Plan at year end. Fair value for Quanex Corporation common stock, which is listed on the New York Stock Exchange, is determined using the last recorded sales price. The common/commingled trust is stated at fair value as determined by the issuer of the common/collective trust fund based on the fair market value of the underlying investments. Common/collective trust funds with underlying investments in investment contracts are valued at fair market value of the underlying investments and then adjusted by the issuer to contract value. Participant loans are valued at the outstanding loan balances.

The Managed Income Portfolio is a stable value fund that is a commingled pool of the Fidelity Managed Income Portfolio Fund. The fund may invest in fixed interest insurance investment contracts, money market funds, corporate and government bonds, mortgage-backed securities, bond funds, and other fixed income securities. Participants may ordinarily direct the withdrawal or transfer of all or a portion of their investment at contract value. Contract value represents contributions made to the fund, plus earnings, less participant withdrawals

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

Management fees and operating expenses charged to the Plan for investments in the mutual funds are deducted from income earned on a daily basis and are not separately reflected. Consequently, management fees and operating expenses are reflected as a reduction of investment return for such investments.

- (3) <u>Use of Estimates</u>. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and changes therein and disclosure of contingent assets and liabilities. Actual results could differ from these estimates.
- (4) <u>Adoption of new Accounting Guidance</u>. The financial statements reflect the retroactive adoption of Financial Accounting Standards Board Staff Position, FSP AAG INV-1 and SOP 94-4-1, *Reporting of Fully Benefit-Responsive Contracts Held by Certain Investment Companies Subject to the AICPA Investment Company Guide and Defined-Contribution Health and Welfare and Pension Plans* (the "FSP"). As required by the FSP, the statements of net assets available for benefits presents investment contracts at fair value as well as an additional line item showing an adjustment of fully benefit-responsive contracts from fair value to contract value. The statement of changes in net assets available for benefit is presented on a contract value basis and was not affected by the adoption of the FSP. The adoption of the FSP did not impact the amount of net assets available for benefits at December 31, 2005.
- (5) <u>Administrative Expenses</u>. The Company pays the administrative expenses, except for loan set up and carrying fees and redemption fees imposed on certain Fidelity funds.
- (6) <u>Payment of Benefits</u>. Benefit payments to participants are recorded when distributed
- (7) <u>Risks and Uncertainties.</u> The Plan utilizes various investment instruments, including mutual funds, common/collective trusts and common stock. Investment securities, in general, are exposed to various risks, such as interest rate, credit and overall market volatility. Due to the level of risk associated with certain investment securities it is reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the financial statements.

C. INVESTMENTS

The Plan's investments that represented 5% or more of the Plan's net assets available for benefits as of December 31, 2006 and 2005 are as follows:

		December 31, 2006				December 31, 2005			
		Shares		Amount		Shares		Amount	
Fidelity Magellan		47,376	\$	4,241,135		40,911	\$	4,354,596	
Fidelity Gov't Money									
Market		2,780,292		2,780,292		3,069,116		3,069,116	
Fidelity Contrafund		31,144		2,030,619		31,858		2,063,134	
Fidelity Growth & Income		58,776		1,830,870		51,794		1,781,704	
Fidelity Low Priced Stock		31,495		1,371,281		30,375		1,240,510	
Fidelity Blue Chip									
Growth		28,407		1,258,727		28,421		1,226,661	
Quanex Unitized Stock		78,582		2,818,737		46,068		1,591,183	
Fidelity Balanced		165,627		3,218,131	*	44,128	*	827,840	
Fidelity Puritan	*	0	*	0		100,364		1,879,817	

presented for comparative purposes only

During the year ended December 31, 2006, the Plan's investments (including gains and losses on investments bought and sold, as well as held during the year) appreciated (depreciated) in value as follows:

		2006	2005
Mutual Funds	\$	77,259	\$ 446,794
Quanex Unitized Stock	((146,452)	 192,469

D. EXEMPT PARTY-IN-INTEREST TRANSACTIONS

Certain Plan investments are shares of mutual funds managed by Fidelity. Fidelity is the trustee as defined by the Plan and, therefore, these transactions qualify as exempt party-in-interest transactions. In addition, the Plan invests in shares of Quanex Corporation unitized common stock. Quanex Corporation is the Plan sponsor as defined by the Plan and, therefore, these transactions also qualify as exempt party-in-interest transactions. As of December 31, 2006 and 2005, the value of Quanex Corporation common stock held by the Plan was \$2,819,053 and \$1,586,612, respectively.

E. 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.

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F. 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. The Plan has received a favorable letter of tax determination dated August 19, 2002. As such, 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 federal income tax under Section 501(a) of the Code. Although the Plan has been amended since receiving the determination letter, the Company believes the Plan is currently designed and being operated in compliance with the applicable requirements of the Code. The Company believes the Plan was qualified and the related trust was tax-exempt as of the financial statement dates.

G. TRANSFER OF ASSETS

Account balances of \$(62,857) and \$(423,330) were transferred between the Plan and the Quanex Corporation Employee Saving Plan in plan years 2006 and 2005, respectively.

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SUPPLEMENTAL SCHEDULES

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QUANEX CORPORATION HOURLY BARGAINING UNIT EMPLOYEES SAVINGS PLAN FORM 5500, SCHEDULE H, PART IV, LINE 4i— SCHEDULE OF ASSETS (HELD AT END OF YEAR) AS OF DECEMBER 31, 2006

(a)	(b) Identity of Issue, Borrower, Lessor, or Similar Party	(c) Description of Investment, Including Maturity Date, Rate of Interest, Collateral, and Par or Maturity Value	(d) Cost	(e) Current Value
	PIMCO	Total Return Fund	\$ 87,001	\$ 87,516
	Templeton	Foreign Fund	412,879	471,380
	Neuberger & Berman	Partners Trust Fund	254,332	317,184
	Goldman Sachs	Mid Cap Value Fund	114,275	116,225
	RS Investments	RS Partners Fund	85,319	84,584
*	f Fidelity	Magellan Fund	4,759,438	4,241,135
*	f Fidelity	Contrafund	1,706,750	2,030,619
*	f Fidelity	Growth & Income Fund	2,101,092	1,830,870
*	f Fidelity	Independence Fund	1,067,064	1,104,994
*	f Fidelity	Overseas Fund	935,824	1,117,946
*	^s Fidelity	Balanced Fund	3,114,125	3,218,131
*	• Fidelity	Blue Chip Fund	1,180,970	1,258,727

* Fidelity	Low-Priced Stock Fund	1,180,727	1,371,281
* Fidelity	Freedom 2010 Fund	358,990	361,208
* Fidelity	Freedom 2020 Fund	220,105	222,310
* Fidelity	Freedom 2030 Fund	35,408	36,027
* Fidelity	Government Money Market Fund	2,780,292	2,780,292
* Fidelity	Freedom 2040 Fund	37,821	38,386
* Fidelity	Freedom 2015 Fund	161,507	164,133
* Fidelity	Freedom 2025 Fund	46,247	47,072
* Fidelity	Freedom 2035 Fund	2,872	2,946
* Fidelity	Freedom 2050 Fund	714	705
		20,643,752	20,903,671
 * Quanex Corporation 	Unitized common stock	2,408,152	2,819,053
* Fidelity	Common/Commingled trust	656,734	656,734
	Loan maturing within 4 to 5 years,		
Participant loans	bearing interest at 5.0% to 5.75%		6,190
	-	\$ 23,708,638	\$ 24,385,648

* Party-in-Interest

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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.

Quanex Corporation Hourly Bargaining Unit Employees Savings Plan

Date: June 28, 2007

/s/ Thomas M. Walker Thomas M. Walker, Benefits Committee

INDEX TO EXHIBITS

23.1 Consent of Independent Registered Public Accounting Firm

99.1 Certification by chief executive officer and chief financial officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 33-46824 of Quanex Corporation on Form S-8 of our report dated June 21, 2007, appearing in this Annual Report on Form 11-K of the Quanex Corporation Hourly Bargaining Unit Employees Savings Plan for the year ended December 31, 2006.

/s/ DELOITTE & TOUCHE LLP DELOITTE & TOUCHE LLP

Houston, Texas June 21, 2007

CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

We hereby certify that the accompanying Report of Quanex Corporation Hourly Bargaining Unit Employees Savings Plan (the "Plan") on Form 11-K for the year ended December 31, 2006 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Report fairly presents, in all material respects, the financial condition and results of operations of the Plan.

June 28, 2007

/s/ Raymond A. Jean

Raymond A. Jean Chairman of the Board, President and Chief Executive Officer /s/ THOMAS M. WALKER

Thomas M. Walker Senior Vice President—Finance and Chief Financial Officer