

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, 2005

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 Piper Impact 401(k) 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

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Benefits Committee
Quanex Corporation

Re: Quanex Corporation Piper Impact 401(k) Plan

We have audited the accompanying statements of net assets available for benefits of Quanex Corporation Piper Impact 401(k) Plan (the "Plan") as of December 31, 2005 and 2004, 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 standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included 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, 2005 and 2004, 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 year end) as of December 31, 2005, is presented for the purpose of additional analysis and is 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. This schedule is the responsibility of the Plan's management. Such schedule has been subjected to the auditing procedures applied in our audit of the basic 2005 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.

/s/ DELOITTE & TOUCHE LLP
DELOITTE & TOUCHE LLP

June 21, 2006

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

| | DECEMBER 31, | |
|---|---------------------|----------------------------|
| | <u>2005</u> | <u>2004</u> |
| ASSETS: | | |
| Participant-directed investments (see Note C) | \$ — | \$ 5,957,438 |
| Receivables: | | |
| Employee contributions receivable | — | 27,963 |
| Employer contributions receivable | — | 5,981 |
| Total receivables | — | 33,944 |
| NET ASSETS AVAILABLE FOR BENEFITS | <u><u>\$ —</u></u> | <u><u>\$ 5,991,382</u></u> |

QUANEX CORPORATION PIPER IMPACT 401(k) Plan

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

| | DECEMBER 31, | |
|--|---------------------|----------------------------|
| | <u>2005</u> | <u>2004</u> |
| ADDITIONS: | | |
| Contributions: | | |
| Employer (net of forfeitures) | \$ 95,658 | \$ 76,887 |
| Employee | 25,114 | 402,242 |
| Total contributions | 120,772 | 479,129 |
| Investment income: | | |
| Interest and dividends | 71,152 | 133,391 |
| Net appreciation in fair value of investments (see Note C) | 207,503 | 405,469 |
| Net investment income | 278,655 | 538,860 |
| Total additions | 399,427 | 1,017,989 |
| DEDUCTIONS: | | |
| Benefits paid to participants | 3,210,372 | 2,404,799 |
| Administrative fees (see Note D) | 968 | 3,636 |
| Total deductions | 3,211,340 | 2,408,435 |
| DECREASE IN NET ASSETS | (2,811,913) | (1,390,446) |
| TRANSFERRED TO QUANEX CORPORATION 401(k) SAVINGS PLAN | (3,179,469) | — |
| NET ASSETS AVAILABLE FOR BENEFITS: | | |
| Beginning of year | 5,991,382 | 7,381,828 |
| End of year | <u><u>\$ —</u></u> | <u><u>\$ 5,991,382</u></u> |

**QUANEX CORPORATION
 PIPER IMPACT 401(k) Plan
 EIN: 38-1872178; PN 001**

| (a) | (b) Identity of issue, borrower, lessor or similar party | (c) Description of investment including maturity date, rate of interest, collateral, par, or maturity value | (d) Cost | (e) Current Value |
|-----|---|--|-------------|-------------------------|
| * | Fidelity | Puritan Fund | \$ — | \$ — |
| * | Fidelity | Magellan Fund | — | — |
| * | Fidelity | Contrafund | — | — |
| * | Fidelity | Growth & Income Fund | — | — |
| * | Fidelity | Independence Fund | — | — |
| * | Fidelity | Overseas Fund | — | — |
| * | Fidelity | Balanced Fund | — | — |
| * | Fidelity | Blue Chip Fund | — | — |
| * | Fidelity | Asset Manager Fund | — | — |
| * | Fidelity | Low-Priced Stock Fund | — | — |
| * | Fidelity | Government Money Market Fund | — | — |
| | Templeton | Foreign Fund | — | — |
| | Neuberger & Berman | Partners Trust Fund | — | — |
| | | Total Mutual Fund Assets | — | — |
| * | Quanex Corporation | Unitized common stock | — | — |
| * | Fidelity | Common/Commingled trust | — | — |
| | Participant loans | Loan maturing within 1.5 to 5 years, bearing interest at 5.0% to 10.5% | — | — |
| | | Total Investments | \$ — | \$ — |

* Party-in-Interest

QUANEX CORPORATION PIPER IMPACT 401(k) PLAN

NOTES TO FINANCIAL STATEMENTS YEARS ENDED DECEMBER 31, 2005 AND 2004

A. DESCRIPTION OF THE PLAN

The following description of the Piper Impact 401(k) Plan (the "Plan") provides only general information. Participants should refer to the Plan document for a more complete description of the Plan's provisions. The Plan was merged into the Quanex Corporation 401(k) Savings Plan on December 14, 2005 and the account balances of the remaining Plan participants were transferred on that date.

During 2005 all of the assets of the Piper Impact division of Quanex Corporation (the "Company") were sold and all of the employees were terminated. Those employees with unvested balances in their account who were terminated in 2005 were fully vested by the Company. Employees with account balances of less than \$1,000 received an automatic distribution unless they decided to rollover their account balance into an IRA. Employees with account balances in excess of \$1,000 had the option of leaving their balance in the Plan, rolling their account balance into an IRA, or taking an immediate distribution.

- General.** The Plan was a defined contribution plan which covered substantially all full-time employees of Piper Impact, a division of Quanex Corporation. The Plan was subject to the provisions of the Employee Retirement Income Security Act of 1974 ("ERISA"). The assets of the Plan were held in trust by Fidelity Management Trust Company ("Fidelity" or the "Trustee"). The Benefits Committee (the "Committee"), appointed by Quanex Corporation's Board of Directors, served as the Plan administrator.
- Contributions.** Participants could elect to contribute from 1% to 50% of their compensation as defined by the Plan, subject to certain Internal Revenue Code ("IRC") limitations, on a pre-tax basis. The Company contributed 25% of the first 6% of base compensation that a participant contributed to the Plan.
- Participant Accounts.** Individual accounts were maintained for each Plan participant. Each participant's account was credited with the participant's contribution, the Company's contribution, and the participant's pro rata share of investment earnings. Participant accounts were also charged with withdrawals, administrative expenses and an allocation of any Plan losses. Investment earnings and losses allocations were 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 was entitled was the benefit that could be provided from the participant's vested account.
- Investments.** Participants directed the investment of contributions into various investment options offered by the Plan. The Plan offered 13 mutual funds, one common/commingled trust and unitized Quanex stock as investment options for participants.
- Vesting and Forfeitures.** Participants were immediately vested in their contributions and earnings thereon. Vesting in the Company's matching and discretionary contribution portion of their accounts plus actual earnings thereon was based on years of continuous service. A participant was 20% vested for each year of credited service beginning with his or her first year and was 100% vested after five years of credited service. Forfeited balances of terminated participants' non-vested accounts were used to reduce current or future Company contributions. During 2005 and 2004, respectively, \$90,284 and \$13,586 of forfeitures were used to offset employer contributions. Amounts forfeited during 2005 and 2004 were \$35,459 and \$13,586, respectively. The amount available for use in the forfeiture account totaled \$0 and \$10,566 at December 31, 2005 and 2004, respectively.

- (5) Payment of Benefits. The Plan was intended for long-term savings but provided for early withdrawals and loan arrangements under certain conditions. In accordance with the Code, upon termination of service, a participant may elect to receive a lump-sum distribution equal to the total

amount of vested benefits in his or her account. Terminated participants with an account balance of less than \$1,000 will automatically receive a lump sum distribution (\$5,000 before March 28, 2005).

- (6) Loans. Loans may be granted to a participant of the Plan at the Committee's discretion. Loan terms range up to five years or seven years if used for the purchase of a primary residence. Loans' mature within 1.5 to 5 years and bear interest at 5% to 10.5%. The interest rate charged on loans was based on prime plus a percentage as defined by the Plan document. Interest on a participant's loan is allocated to the borrower's 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 accounting principles generally accepted in the United States of America.
- (2) 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 recorded value of the common/commingled trust is at net asset value which is composed of the fair value of the underlying assets held by the trust.
- 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) Use of Estimates. 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) Administrative Expenses. The Company pays the administrative expenses of the Plan, except loan set up and carrying fees and redemption fees imposed on certain Fidelity funds.
- (5) Payment of Benefits. Benefit payments are recorded when paid.
- (6) Risks and Uncertainties. The Plan utilizes various investment instruments, including mutual funds 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 following are investments that represent 5 percent or more of the Plan's investments.

| | December 31, 2005 | | December 31, 2004 | |
|---------------------------------------|-------------------|--------|-------------------|--------------|
| | Shares | Amount | Shares | Amount |
| Fidelity Blue Chip Fund | — | \$ — | 39,958 | \$ 1,666,654 |
| Fidelity Contrafund | — | — | 15,547 | 882,111 |
| Fidelity Puritan Fund | — | — | 37,377 | 708,295 |
| Fidelity Government Money Market Fund | — | — | 478,789 | 478,789 |
| Fidelity Managed Income Portfolio | — | — | 433,555 | 433,555 |
| Fidelity Independence Fund | — | — | 22,085 | 393,775 |

During the years ended December 31, 2005 and 2004, the Plan's investments (including gains and losses on investments bought and sold, as well as held during the year) appreciated in value as follows:

| | 2005 | 2004 |
|------------------------------|-------------------|-------------------|
| Mutual funds | \$ 165,611 | \$ 320,713 |
| Quanex unitized common stock | 41,892 | 84,756 |
| | <u>\$ 207,503</u> | <u>\$ 405,469</u> |

D. RELATED PARTY 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 party-in-interest transactions. Fees paid by the Plan for the investment management services amounted to \$968 and \$3,636 for the years ended December 31, 2005 and 2004, respectively. 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 party-in-interest transactions. As of December 31, 2005 and 2004, the value of Quanex Corporation unitized common stock held by the Plan was \$0 and \$247,801, respectively.

E. PLAN TERMINATION

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.

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 qualified under Section 401(a) of the Internal Revenue Code (the "Code") and, as a result, the trust 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.

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 Piper Impact 401(k) Plan

Date: June 27, 2006

/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. 333-22977 of Quanex Corporation on Form S-8 of our report dated June 21, 2006, appearing in this Annual Report on Form 11-K of the Quanex Corporation Piper Impact 401(k) Plan for the year ended December 31, 2005.

/s/ DELOITTE & TOUCHE LLP
DELOITTE & TOUCHE LLP

Houston, Texas
June 21, 2006

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

We hereby certify that the accompanying Report of Quanex Corporation Piper Impact 401(k) Plan (the "Plan") on Form 11-K for the year ended December 31, 2005 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 27, 2006

/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*
