UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

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

Date of report (Date of earliest event reported): May 9, 2005

Senesco Technologies, Inc.

(Exact Name of Registrant as Specified in Charter)

Delaware (State or Other Jurisdiction

of Incorporation)

001-31326 (Commission File Number) 84-1368850 (IRS Employer Identification No.)

303 George Street, Suite 420, New Brunswick, New Jersey (Address of Principal Executive Offices)

08901 (Zip Code)

(732) 296-8400

(732) 296-8400 (Registrant's telephone number,

including area code)

Not applicable

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

o Written communications pursuant to Rule 425 under the Section Act (17 CFR 230.425).

o Soliciting material pursuant to Rule 14A-12 under the Exchange Act (17 CFR 240.14a-12).

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240-14d-2(b)).

o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c)).

Item 3.02 Unregistered Sales of Equity Securities. And Item 8.01 Other Events.

Senesco Technologies, Inc., a Delaware corporation (the "Company"), entered into a Securities Purchase Agreement (the "Securities Purchase Agreement") with institutional and other accredited investors, pursuant to which the Company issued and sold an aggregate of 1,595,651 units at \$2.11 per unit (calculated by taking a 25% discount to the average closing price of the Company's stock over a five trading day period, which was \$2.81 per share (the "Market Price")), comprised of one share (consisting of a total of 1,595,651 shares) of newly issued common stock, \$0.01 par value per share (the "Common Stock"), and a five-year warrant to purchase 0.50 of a share of Common Stock (consisting of a total of 797,836 warrants) at an exercise price of \$3.38 (calculated by taking a 20% premium to the Market Price) per share (the "Warrant").

The private placement closed on May 9, 2005. The Company received gross proceeds equal to \$3,366,829.

Oppenheimer & Co. Inc. acted as the placement agent for this private placement.

The securities sold in this private placement have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), and may not be offered or sold in the United States in the absence of an effective registration statement or exemption from the registration requirements under the Securities Act. In accordance with the terms of the Securities Purchase Agreement, the Company has agreed to file a resale registration statement on Form S-3 within 30 days of the closing date to register, pursuant to the Securities Act, the shares of Common Stock and shares of Common Stock underlying the Warrants, acquired by the investors.

A complete copy of each of the form of Warrant and Securities Purchase Agreement, and the Placement Agreement and the related press release of the Company, are filed herewith as Exhibits 4.1, 10.1, 10.2, and 99.1, respectively, and are incorporated herein by reference. The foregoing descriptions of: (i) the Warrant, (ii) the Securities Purchase Agreement; (iii) the Placement Agreement; and (iv) the press release and any other documents or filings referenced herein are qualified in their entirety by reference to such exhibits, documents or filings.

Item 9.01. Financial Statements and Exhibits.

(c) Exhibits.Exhibit No.Description4.1Form of Warrant issued to certain accredited investors (incorporated by reference to Exhibit 4.1 of the Form 8-K filed on May 5, 2005).10.1Form of Securities Purchase Agreement by and between the Company and certain accredited investors (incorporated by reference to Exhibit 10.1 of the Form 8-K filed on May 5, 2005).10.2Placement Agent Agreement by and between the Company and Oppenheimer & Co. Inc. dated as of February 15, 2005 (incorporated by reference to Exhibit 10.2 of the Form 8-K filed on May 5, 2005).99.1Press Release dated May 10, 2005, announcing the completion of the private placement.

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SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, hereunto duly authorized.

SENESCO TECHNOLOGIES, INC.

Dated: May 10, 2005

By: /s/ Bruce Galton

Name: Bruce Galton Title: President and Chief Executive Officer

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<u>Company Contact:</u> Senesco Technologies, Inc. (732) 296-8400 Joel Brooks Chief Financial Officer (jbrooks@senesco.com) Investor Relations Contacts: Lippert/Heilshorn & Associates Kim Sutton Golodetz (kgolodetz@lhai.com)

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Senesco Technologies Completes \$3.37 Million Financing

NEW BRUNSWICK, N.J. (May 10, 2005) – Senesco Technologies, Inc. ("Senesco" or the "Company") (AMEX: SNT) closed on its previously announced private placement to institutional and accredited investors, consisting of 1,595,651 shares of common stock and warrants to purchase 797,836 shares of common stock. Aggregate gross proceeds to the Company were approximately \$3.37 million. In connection with the private placement, Senesco has agreed to file a registration statement on Form S-3 to register the shares of common stock and the shares underlying the warrants.

Oppenheimer & Co. acted as the placement agent for this transaction.

About Senesco Technologies, Inc.

Senesco takes its name from the scientific term for the aging of plant cells: senescence. The Company has developed technology that regulates cell life. Delaying cell breakdown in plants extends freshness after harvesting, while increasing crop yields and resistance to environmental stress for flowers, fruits and vegetables. The Company believes that its technology can be used to develop superior strains of crops without any modification other than delaying natural plant senescence. Senesco has undertaken preclinical research in certain areas of human health.

Accelerating apoptosis may have applications to development of cancer treatments. Delaying apoptosis may have applications to certain diseases such as glaucoma, ischemia and arthritis, among others. Senesco partners with leading-edge companies and earns research and development fees for applying its technology to enhance its partners' products. Senesco is headquartered in New Brunswick, New Jersey, and utilizes research laboratories at universities and research centers throughout North America.

Certain statements included in this press release are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Actual results could differ materially from such statements expressed or implied herein as a result of a variety of factors, including, but not limited to: the development of the Company's gene technology; the success and timing of the Company's studies and pre-clinical trials; the approval of the Company's patent applications; the successful implementation of the Company's research and development programs and joint ventures; the success of the Company's license agreements; the successful conversion of the Company's letter of intent into a license agreement; the acceptance by the market of the Company's products; competition and the timing of projects and trends in future operating performance, as well as other factors expressed from time to time in the Company's periodic filings with the Securities and Exchange Commission (the "SEC"). As a result, this press release should be read in conjunction with the Company's periodic filings with the SEC. The forward-looking statements contained herein are made only as of the date of this press release, and the Company undertakes no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.

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