

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-QSB

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

For the quarterly period ended September 30, 2002
Commission File No. 001-31326

SENESCO TECHNOLOGIES, INC.

(Exact Name of Small Business Issuer as Specified in Its Charter)

Delaware

84-1368850

(State or Other Jurisdiction of
Incorporation or Organization)

(I.R.S. Employer Identification No.)

303 George Street, Suite 420, New Brunswick, NJ

08901

(Address of Principal Executive Offices)

(Zip Code)

(732) 296-8400

(Issuer's Telephone Number, Including Area Code)

Check whether the Issuer: (1) filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the past 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:

State the number of shares outstanding of each of the Issuer's classes of common stock, as of October 31, 2002:

Class

Number of Shares

Common Stock, \$0.01 par value

11,880,045

Transitional Small Business Disclosure Format (check one):

Yes:

No: X

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

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PART I. FINANCIAL INFORMATION.

ITEM 1. FINANCIAL STATEMENTS.

Certain information and footnote disclosures required under generally accepted accounting principles have been condensed or omitted from the following consolidated financial statements pursuant to the rules and regulations of the Securities and Exchange Commission. However, Senesco Technologies, Inc., a Delaware corporation, and its wholly owned subsidiary, Senesco, Inc., a New Jersey corporation (collectively, "Senesco" or the "Company"), believe that the disclosures are adequate to assure that the information presented is not misleading in any material respect.

The results of operations for the interim periods presented herein are not necessarily indicative of the results to be expected for the entire fiscal year.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

(A DEVELOPMENT STAGE COMPANY)

CONDENSED CONSOLIDATED BALANCE SHEET

	September 30, 2002	June 30, 2002
	(unaudited)	
ASSETS		
CURRENT ASSETS:		
Cash.....	\$ 352,245	\$ 798,711
Short-term investments.....	3,279,074	2,872,432
Accounts receivable.....	--	75,000
Prepaid expenses and other current assets.....	288,992	55,772
Total Current Assets.....	3,920,311	3,801,915
Long-term investments.....	499,483	993,535
Property and equipment, net.....	75,089	79,581
Intangibles.....	382,530	347,978
Security deposit.....	7,187	7,187
TOTAL ASSETS.....	\$ 4,884,600	\$ 5,230,196
	=====	=====
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable.....	\$ 253,449	\$ 80,201
Accrued expenses.....	241,367	296,347
Total Current Liabilities.....	494,816	376,548
Grant payable.....	79,061	67,972
TOTAL LIABILITIES.....	573,877	444,520
	-----	-----
STOCKHOLDERS' EQUITY:		
Preferred stock, \$0.01 par value; authorized 5,000,000 shares, no shares issued.....	--	--
Common stock, \$0.01 par value; authorized 20,000,000 shares, issued and outstanding 11,880,045 shares.....	118,800	118,800
Capital in excess of par.....	12,136,876	12,157,679
Deficit accumulated during the development stage.....	(7,944,953)	(7,430,321)
Deferred compensation related to issuance of options and warrants.....	--	(60,482)
Total Stockholders' Equity.....	4,310,723	4,785,676
	-----	-----
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY...	\$ 4,884,600	\$ 5,230,196
	=====	=====

See Notes to Condensed Consolidated Financial Statements.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

(A DEVELOPMENT STAGE COMPANY)

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(unaudited)

	For the Three Months Ended September 30, 2002		From Inception on July 1, 1998 through September 30, 2002
	-----	-----	-----
Revenue.....	\$ 10,000	\$ --	\$ 210,000
	-----	-----	-----
Operating expenses:			
General and administrative.....	\$ 363,224	\$ 280,719	\$ 5,391,001
Research and development.....	144,284	63,155	1,643,860
Stock-based compensation.....	39,680	153,848	1,400,938
	-----	-----	-----
Total operating expenses.....	547,188	497,722	8,435,799
	-----	-----	-----
Loss from operations.....	(537,188)	(497,722)	(8,225,799)
	-----	-----	-----
Sale of state income tax loss.....	--	--	210,882
Interest income (expense), net.....	22,556	(3,553)	69,964
	-----	-----	-----
Net Loss.....	\$ (514,632)	\$ (501,275)	\$(7,944,953)
	=====	=====	=====
Basic and diluted net loss per common share.....	\$ (0.04)	\$ (0.06)	
	=====	=====	
Basic and diluted weighted average number of common shares outstanding.....	11,880,045	7,872,626	
	=====	=====	

See Notes to Condensed Consolidated Financial Statements.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

(A DEVELOPMENT STAGE COMPANY)

CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY

FROM INCEPTION ON JULY 1, 1998 THROUGH SEPTEMBER 30, 2002

(unaudited)

	Common Stock		Capital in Excess of Par Value	Deficit Accumulated During the Development Stage	Deferred Compensation Related to the Issuance of Options and Warrants	Total
	Shares	Amount				
Common stock outstanding.....	2,000,462	\$ 20,005	\$ (20,005)	--	--	--
Contribution of capital.....	--	--	85,179	--	--	\$ 85,179
Issuance of common stock in reverse merger on January 22, 1999 at \$0.01 per share.....	3,400,000	34,000	(34,000)	--	--	--
Issuance of common stock for cash on May 21, 1999 at \$2.63437 per share.....	759,194	7,592	1,988,390	--	--	1,995,982
Issuance of common stock for placement fees on May 21, 1999 at \$0.01 per share.....	53,144	531	(531)	--	--	--
Fair market value of options and warrants granted on September 7, 1999.....	--	--	252,578	--	\$ (72,132)	180,446
Fair market value of warrants granted on October 1, 1999.....	--	--	171,400	--	(108,600)	62,800
Fair market value of warrants granted on December 15, 1999.....	--	--	331,106	--	--	331,106
Issuance of common stock for cash on January 26, 2000 at \$2.867647 per share.....	17,436	174	49,826	--	--	50,000
Issuance of common stock for cash on January 31, 2000 at \$2.87875 per share.....	34,737	347	99,653	--	--	100,000
Issuance of common stock for cash on February 4, 2000 at \$2.934582 per share.....	85,191	852	249,148	--	--	250,000

(continued)

See Notes to Condensed Consolidated Financial Statements.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

 (A DEVELOPMENT STAGE COMPANY)

 CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY

 FROM INCEPTION ON JULY 1, 1998 THROUGH SEPTEMBER 30, 2002

 (unaudited)

	Common Stock		Capital in Excess of Par Value	Deficit Accumulated During the Development Stage	Deferred Compensation Related to the Issuance of Options and Warrants	Total
	Shares	Amount				
Issuance of common stock for cash on March 15, 2000 at \$2.527875 per share.....	51,428	\$ 514	\$ 129,486	--	--	\$ 130,000
Issuance of common stock for cash on June 22, 2000 at \$1.50 per share.....	1,471,700	14,718	2,192,833	--	--	2,207,551
Commissions, legal and bank fees associated with issuances for the year ended June 30, 2000.....	--	--	(260,595)	--	--	(260,595)
Fair market value of warrants granted on October 2, 2000.....	--	--	80,700	--	--	80,700
Fair market value of warrants granted on September 4, 2001.....	--	--	41,800	--	--	41,800
Fair market value of warrants granted on October 15, 2001.....	--	--	40,498	--	--	40,498
Fair market value of options and warrants granted on November 1, 2001.....	--	--	138,714	--	--	138,714
Issuance of common stock and warrants for cash from November 30, 2001 through April 17, 2002.....	3,701,430	37,014	6,440,486	--	--	6,477,500
Fair market value of options and warrants granted on December 1, 2001.....	--	--	262,550	--	--	262,550

(continued)

See Notes to Condensed Consolidated Financial Statements.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

(A DEVELOPMENT STAGE COMPANY)

CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY

FROM INCEPTION ON JULY 1, 1998 THROUGH SEPTEMBER 30, 2002

(unaudited)

	Common Stock		Capital in Excess of Par Value	Deficit Accumulated During the Development Stage	Deferred Compensation Related to the Issuance of Options and Warrants	Total
	Shares	Amount				
Issuance of common stock and warrants associated with bridge loan conversion on December 3, 2001.....	305,323	\$ 3,053	\$ 531,263	--	--	\$ 534,316
Fair market value of options vested and extended on January 1, 2002.....	--	--	94,146	--	--	94,146
Commissions, legal and bank fees associated with issuances for the year ended June 30, 2002.....	--	--	(846,444)	--	--	(846,444)
Fair value of options and warrants vested and change in fair value of options and warrants granted.....	--	--	118,695	--	\$ 180,732	299,427
Net loss.....	--	--	--	\$(7,944,953)	--	(7,944,953)
Balance at September 30, 2002.....	11,880,045	\$ 118,800	\$12,136,876	\$(7,944,953)	\$ --	\$ 4,310,723
	=====	=====	=====	=====	=====	=====

See Notes to Condensed Consolidated Financial Statements.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

(A DEVELOPMENT STAGE COMPANY)

CONDENSED CONSOLIDATED STATEMENT OF CASH FLOWS

(unaudited)

	For the Three Months Ended September 30,		From Inception on July 1, 1998 through September 30, 2002
	2001	2002	
Cash flows from operating activities:			
Net loss.....	\$ (514,632)	\$ (501,275)	\$ (7,944,953)
Adjustments to reconcile net loss to net cash used in operating activities:			
Noncash capital contribution.....	--	--	85,179
Noncash conversion of accrued expenses into equity.....	--	--	131,250
Issuance of common stock and warrants for interest.....	--	--	9,316
Issuance and vesting of stock options and warrants for services.....	39,680	153,848	1,400,938
Depreciation and amortization.....	5,427	5,366	76,660
(Increase) decrease in operating assets:			
Accounts receivable.....	75,000	--	--
Prepaid expense and other current assets.....	(233,220)	(8,634)	(288,992)
Security deposit.....	--	--	(7,187)
Increase (decrease) in operating liabilities:			
Accounts payable.....	173,248	(39,579)	253,449
Accrued expenses.....	(54,980)	53,334	241,367
Net cash used in operating activities.....	(509,477)	(336,940)	(6,042,973)
Cash flows from investing activities:			
Patent costs.....	(34,552)	(39,232)	(392,547)
Purchase of investments, net.....	87,410	--	(3,778,557)
Purchase of property and equipment.....	(936)	--	(141,732)
Net cash provided by (used in) investing activities.....	51,922	(39,232)	(4,312,836)
Cash flows from financing activities:			
Proceeds from grant.....	11,089	--	79,061
Proceeds from issuance of bridge notes.....	--	400,000	525,000
Proceeds from issuance of common stock and warrants.....	--	--	10,103,993
Cash provided by financing activities.....	11,089	400,000	10,708,054
Net increase (decrease) in cash and cash equivalents.....	(446,466)	23,828	352,245
Cash and cash equivalents at beginning of period.....	798,711	14,330	--
Cash and cash equivalents at end of period.....	<u>\$ 352,245</u>	<u>\$ 38,158</u>	<u>\$ 352,245</u>
Supplemental disclosure of cash flow information:			
Cash paid during the period for interest.....	<u>\$ --</u>	<u>\$ --</u>	<u>\$ 22,317</u>
Supplemental schedule of noncash financing activity:			
Conversion of bridge notes into stock.....	<u>\$ --</u>	<u>\$ --</u>	<u>\$ 534,316</u>

See Notes to Condensed Consolidated Financial Statements.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

(A DEVELOPMENT STAGE COMPANY)

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(unaudited)

NOTE 1 - BASIS OF PRESENTATION:

The financial statements included herein have been prepared by the Company, without audit, pursuant to the rules and regulations of the Securities and Exchange Commission. Certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles have been condensed or omitted pursuant to such rules and regulations. These unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto included in the Company's Annual Report on Form 10-KSB for the year ended June 30, 2002.

In the opinion of the Company's management, the accompanying unaudited condensed consolidated financial statements contain all adjustments, consisting solely of those which are of a normal recurring nature, necessary to present fairly its financial position as of September 30, 2002 and as of June 30, 2002, the results of its operations for the three-month periods ended September 30, 2002 and 2001, and for the period from inception on July 1, 1998 through September 30, 2002.

Interim results are not necessarily indicative of results for the full fiscal year.

Senesco is a development stage functional genomics company whose mission is to (i) enhance the quality and productivity of fruits, flowers, vegetables and agronomic crops through the control of aging in plants (senescence); and (ii) develop novel approaches to control diseases, such as arthritis, macular degeneration, glaucoma and neurodegenerative diseases, such as Alzheimer's disease and Parkinson's disease, which are the result of premature cell death in mammals (apoptosis) and cancer, a disease in which apoptosis is blocked. Agricultural results to date include longer shelf life of perishable produce, increased seed and biomass yield and greater tolerance to environmental stress. Mammalian results to date include determining the expression of the Company's patent pending genes in both ischemic and non-ischemic heart tissue and inducing apoptosis in human cancer cell lines derived from tumors.

NOTE 2 - LOSS PER SHARE:

Net loss per common share is computed by dividing the loss by the weighted-average number of common shares outstanding during the period. Since September 7, 1999, the Company has had outstanding options and warrants to purchase its common stock, \$0.01 par value per share (the "Common Stock"); however, for the three months ended September 30, 2002 and 2001, shares to be issued upon the exercise of options and warrants aggregating 5,818,153 and 890,000, respectively, at an average exercise price of \$2.62 and \$3.13, respectively, are not included in the computation of diluted loss per share as the effect is anti-dilutive.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

(A DEVELOPMENT STAGE COMPANY)

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(unaudited)

NOTE 3 - SIGNIFICANT EVENTS:

Development and License Agreement

In September 2002, the Company entered into an exclusive development and license agreement (the "Cal/West License") with Cal/West Seeds ("Cal/West") to commercialize the Company's technology in certain varieties of alfalfa. The Cal/West License will continue until the expiration of the patents set forth in the agreement, unless terminated earlier by either party pursuant to the terms of the agreement. The Cal/West License also grants Cal/West an exclusive option to develop the Company's technology in various other forage crops. In connection with the execution of the Cal/West License, the Company received an initial fee of \$10,000 from Cal/West. Upon the completion of certain development benchmarks, the Company will receive an additional \$20,000 in periodic payments and upon the commercialization of certain products, the Company will receive royalty payments from Cal/West.

Collaboration Agreement

In September 2002, the Company entered into an exclusive worldwide collaboration agreement (the "Tilligen Agreement") with Tilligen, Inc. ("Tilligen") to establish a research alliance by and between the Company and Tilligen to develop and commercialize certain genetically enhanced species of produce. Under the Tilligen Agreement, Tilligen will license its proprietary technology to the Company and will also perform certain transformation functions in order to develop seeds in certain species of produce that have been enhanced with the Company's technology (the "Product"). The Tilligen Agreement will continue until the expiration of the patents set forth in the agreement, unless terminated earlier by either party pursuant to the terms of the agreement. In connection with the execution of the Tilligen Agreement, the Company incurred an initial research and development fee of \$200,000. Upon the completion of certain development benchmarks, the Company will incur additional research and development fees and upon commercialization of the Product, Tilligen will receive royalty payments from the Company. The Company is amortizing the estimated total research and development fees over the term of the research period.

Research and Development Agreement

On September 1, 2002, the Company extended its Research and Development Agreement with the University of Waterloo for an additional two-year period. Under this extension, the Company is obligated to pay Can \$1,092,800, which represented approximately US \$690,000 as of September 30, 2002.

NOTE 4 - SUBSEQUENT EVENTS:

Option Grants

On October 9, 2002, pursuant to the Company's 1998 Stock Incentive Plan, as amended, the Company granted options to purchase an aggregate of 22,500 shares of its Common Stock to two of the Company's executive officers at an exercise price equal to \$1.65 per share, with one-third of such options becoming exercisable on each of the first, second and third anniversaries from the date of grant.

Consulting Agreement

On November 1, 2002, the Company entered into another one-year consulting agreement with Dr. Alan Bennett, which provides for monthly payments of \$2,400 to Dr. Bennett.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

OVERVIEW

Our Business

The primary business of Senesco Technologies, Inc., a Delaware corporation incorporated in 1999, and its wholly-owned subsidiary, Senesco, Inc., a New Jersey corporation incorporated in 1998, collectively referred to as "Senesco," "we," "us" or "our," is the research, development and commercial exploitation of a potentially significant platform technology involving the identification and characterization of genes that we believe control the programmed cell death of plant cells, also known as senescence, and mammalian cells, also known as apoptosis.

Agricultural Applications

Our technology goals for agricultural applications are to: (i) extend the shelf-life of perishable plant products; (ii) produce larger and leafier crops; (iii) increase crop production in horticultural and agronomic crops; and (iv) reduce the harmful effects of environmental stress.

Senescence is the natural aging of plant tissues. Loss of cellular membrane integrity is an early event during the senescence of all plant tissues that prompts the deterioration of fresh flowers, fruits and vegetables. This loss of integrity, which is attributable to the formation of lipid metabolites in membrane bilayers that "phase-separate," causes the membranes to become "leaky." A decline in cell function ensues, leading to deterioration and eventual death, or spoilage, of the tissue. A delay in senescence increases shelf-life and extends the plant's growth timeframe, which allows the plant to devote more time to the photosynthetic process. We have shown that the additional energy gained in this period leads directly to increased seed production, and therefore increases crop yield. Seed production is a vital agricultural function. For example, oil-bearing crops store oil in their seeds. We have also shown that reducing premature senescence allows the plant to allocate more energy toward growth, leading to larger plants, with increased biomass, and more leafy crops. Most recently, we have demonstrated that reducing premature senescence results in crops which exhibit increased resilience to water deprivation and salt stress. Drought and salt resistant crops may ultimately be more cost effective due to reduced loss in the field and less time spent on crop management.

The technology presently utilized by the industry for increasing the shelf-life in certain flowers, fruits and vegetables relies on reducing ethylene biosynthesis, and hence only has application to a limited number of plants that are ethylene-sensitive.

Our research and development focuses on the discovery and development of new gene technologies, which are designed to confer positive traits on fruits, flowers, vegetables, forestry species and agronomic crops. To date, we have isolated and characterized the senescence-induced lipase gene, deoxyhypusine synthase, or DHS, gene and Factor 5A gene in certain species of plants. Our goal is to inhibit the expression of, or silence, these genes to delay senescence, which will in turn extend shelf-life, increase biomass, increase yield and increase resistance to environmental stress, thereby demonstrating "proof of concept" in each category of crop. We have licensed this technology to various strategic partners and have entered into a joint

venture, and we intend to continue to license this technology to additional strategic partners and/or enter into additional joint ventures.

We are currently working with lettuce, melon, tomato, canola, Arabidopsis, a model plant that produces oil in a manner similar to canola, banana plants, and certain species of trees and alfalfa, and have obtained "proof of concept" for the lipase and DHS genes in several of these plants. Near-term research and development initiatives include: (i) silencing or reducing the expression of DHS and Factor 5A genes in these plants; and (ii) propagation and testing of plants with our silenced genes. We have also completed our research and development initiative in carnation flower, which yielded a 100% increase in shelf-life through the inhibition of the DHS reaction.

Human Health Applications

Inhibiting Apoptosis

We have also isolated the DHS and programmed cell death Factor 5A genes in mammalian tissue. Our preliminary research reveals that DHS and Factor 5A genes regulate apoptosis in animal and human cells. The mammalian apoptosis isoforms of the DHS and Factor 5A genes were first isolated from the ovarian tissue of rats, which undergoes apoptosis naturally at the end of the female reproductive cycle. The sequences of the mammalian apoptosis DHS and Factor 5A genes are very similar to those of the corresponding plant genes in keeping with their common functions. Moreover, inhibiting the function of the Factor 5A gene in rats has been shown to inhibit the induction of corpus luteum apoptosis. Apoptosis, as manifested by DNA fragmentation, was clearly detectable in super-ovulated control female rats within three hours of treatment with prostaglandin F2a. This hormone induces corpus luteum apoptosis naturally in mammals, but in super-ovulated animals in which the activation of Factor 5A had been inhibited, DNA fragmentation reflecting apoptosis was not apparent. Thus, just as these genes can be used to delay senescence in plants, this experiment shows that they may also be used to inhibit apoptosis in mammals. We believe that our technology has potential application as a means of controlling a broad range of diseases that are attributable to premature apoptosis, including neurodegenerative diseases, such as Alzheimer's disease and Parkinson's disease, retinal diseases, such as glaucoma and macular degeneration, heart disease, stroke and arthritis. We have commenced pre-clinical research on heart tissue samples from both ischemic and non-ischemic patients with heart disease and have found that Factor 5A is significantly upregulated in ischemic heart tissue. Ischemia is the restriction of blood supply to the heart that can result in heart attacks and damage to heart tissue.

Accelerating Apoptosis

Conversely, we have also established in pre-clinical studies that our apoptosis Factor 5A gene is able to kill cancer cells. Tumors arise when cells that have been targeted to undergo apoptosis are unable to do so because of an inability to activate the apoptotic pathways. When our apoptosis Factor 5A gene was introduced into RK0 cells, a cell line derived from human carcinoma and COS7 cells, an immortal, cancer-like cell line from monkeys, virtually all cells expressing the Factor 5A gene underwent apoptosis. Moreover, just as the senescence Factor 5A gene appears to facilitate expression of the entire suite of genes required for programmed cell

death in plants, the apoptosis Factor 5A gene appears to regulate expression of a suite of genes required for programmed cell death in mammals. For example, over expression of apoptosis Factor 5A up regulates p53, an important tumor suppressor gene that promotes apoptosis in cells with damaged DNA and also down regulates bcl 2, a suppressor of apoptosis. Because the Factor 5A gene appears to function at the "wellhead" of the apoptotic pathways, we believe that our gene technology has potential application as a means of combating a broad range of cancers.

Agricultural Target Markets

Our technology embraces crops that are reproduced both through seeds and propagation, which are the only two means of commercial crop reproduction. Propagation is a process whereby the plant does not produce fertile seeds and must reproduce through cuttings from the parent plant which are planted and become new plants. In order to address the complexities associated with marketing and distribution in the worldwide market, we have adopted a multi-faceted commercialization strategy, in which we plan to enter into licensing agreements or other strategic relationships with a variety of companies or other entities on a crop-by-crop basis.

In November 2001, we entered into a worldwide exclusive development and license agreement, referred to herein as the Harris Moran License, with Harris Moran Seed Company to commercialize our technology in lettuce and certain melons for an indefinite term, unless terminated by either party pursuant to the terms of the agreement. In connection with the Harris Moran License, we received an initial license fee of \$125,000 in November 2001. Upon the completion of certain marketing and development benchmarks set forth in the Harris Moran License, we will receive an additional \$3,875,000 in development payments over a multi-year period along with royalties upon commercial introduction.

To date, the development steps performed by Harris Moran and us have all been completed on schedule in accordance with the protocol set forth in the Harris Moran License. There has been extensive characterization of our genes in lettuce in a laboratory setting. The initial lab work has produced genetically modified seed under greenhouse containment, which has been followed by substantial field trials for evaluation. These field trials represent a vital step in the process necessary to develop a commercial product. Harris Moran foresees additional field trials of our technology by June 2003.

In June 2002, we entered into a three-year worldwide exclusive development and option agreement, referred to herein as the ArborGen Agreement, with ArborGen, LLC to develop our technology in certain species of trees. In connection with the ArborGen Agreement, we received an initial development fee of \$75,000 in July 2002. Upon the completion of certain development benchmarks set forth in the ArborGen Agreement, we will receive an additional \$225,000 in periodic development payments over the term of the ArborGen Agreement. The ArborGen Agreement also grants ArborGen an option to acquire an exclusive worldwide license to commercialize our technology in various other forestry products, and upon the execution of a license agreement, we will receive a license fee and royalties from ArborGen.

In September 2002, we entered into an exclusive development and license agreement, referred to herein as the Cal/West License, with Cal/West Seeds to commercialize our technology in certain varieties of alfalfa. The Cal/West License will continue until the expiration

of the patents set forth in the agreement, unless terminated earlier by either party pursuant to the terms of the agreement. The Cal/West License also grants Cal/West an exclusive option to develop our technology in various other forage crops. In connection with the execution of the Cal/West License, we received an initial fee of \$10,000 from Cal/West. Upon the completion of certain development benchmarks, we will receive an additional \$20,000 in periodic payments, and upon the commercialization of certain products, we will receive royalty payments from Cal/West.

Human Health Target Markets

We believe that our gene technology could have broad applicability in the human health field, by either inhibiting or accelerating apoptosis. Inhibiting apoptosis may be useful in preventing or treating a wide range of diseases attributed to premature apoptosis, including stroke, heart disease, arthritis, retinal diseases such as glaucoma, and macular degeneration and neurodegenerative diseases such as Alzheimer's disease and Parkinson's disease. Accelerating apoptosis may be useful in preventing or treating certain forms of cancer because the body's immune system is not able to force cancerous cells to undergo apoptosis.

Competition

Our competitors in the agricultural and human health industries are primarily focused on research and development rather than commercialization. Those competitors who are presently attempting to distribute their technology have generally utilized one of the following distribution channels: (i) licensing technology to major marketing and distribution partners; or (ii) entering into strategic alliances. In addition, some competitors are owned by established distribution companies, which alleviates the need for strategic alliances, while others are attempting to create their own distribution and marketing channels.

Our competitors in the field of delaying plant senescence are companies that develop and produce transformed plants in which ethylene biosynthesis has been silenced. Such companies include, among others: Paradigm Genetics; Aventis Crop Science; Mendel Biotechnology; Bionova Holding Corporation; Renessen LLC; Exelixis Plant Sciences, Inc.; PlantGenix, Inc.; and Eden Bioscience, among others.

Companies working in the field of apoptosis research include, among others: Cell Pathways, Inc.; Trevigen, Inc.; Idun Pharmaceuticals; Novartis; Introgen Therapeutics, Inc.; Genta, Inc.; and Oncogene, Inc.

Marketing Program

Based upon our multi-faceted commercialization strategy, we anticipate that there may be a significant period of time before plants enhanced using our technology reach consumers. Thus, we have not begun to actively market our technology directly to consumers, but rather, we have sought to establish ourselves within the industry through our advertising program in trade journals and a national magazine, as well as through our website and direct communication with prospective licensees.

Research Program

Our subsequent research and development initiatives include: (i) further developing the lipase, DHS and Factor 5A gene technology in lettuce, melon and banana, and implementing the technology in a variety of other commercially important agricultural crops such as tomato, alfalfa and trees; (ii) testing the resultant crops for new beneficial traits such as increased yield and increased tolerance to environmental stress; and (iii) assessing the role of the DHS and Factor 5A genes in human diseases through the accumulation of additional data from pre-clinical experiments with cell lines, mammalian tissue and animal models. Our strategy for agriculture focuses on various plants to allow flexibility that will accommodate different plant reproduction strategies among the different sectors of the broad agricultural and horticultural markets.

Our research and development is performed by third party researchers at our direction, pursuant to various research and license agreements. The primary research and development effort takes place at the University of Waterloo in Ontario, Canada, where the technology was developed, and at the University of Colorado. Additional research and development is performed in connection with the Harris Moran License, the ArborGen Agreement, the Cal/West License and the Tilligen Agreement, as well as through the joint venture with Rahan Meristem Ltd. in Israel. During the three months ended September 30, 2002 and September 30, 2001, we incurred aggregate research and development expenses of \$144,284 and \$63,155, respectively. As of September 30, 2002, our aggregate research and development expenses since inception totaled \$1,643,860.

Joint Venture

On May 14, 1999, we entered into a joint venture agreement with Rahan Meristem Ltd., an Israeli company engaged in the worldwide export marketing of banana germ-plasm, referred to herein as the Rahan Joint Venture. Rahan Meristem accounts for approximately 10% of the worldwide export of banana seedlings. We have contributed, by way of a limited, exclusive, world-wide license to the Rahan Joint Venture, access to our technology, discoveries, inventions and know-how, whether patentable or otherwise, pertaining to plant genes and their cognate expressed proteins that are induced during senescence for the purpose of developing, on a joint basis, genetically enhanced banana plants which will result in a banana that has a longer shelf-life. Rahan Meristem has contributed its technology, inventions and know-how with respect to banana plants. Rahan Meristem and we equally own the Rahan Joint Venture.

The Rahan Joint Venture applied for and received a conditional grant that totals approximately \$340,000, which constitutes 50% of the Rahan Joint Venture's research and development budget over a four-year period, from the Israel - U.S. Binational Research and Development Foundation, or BIRD Foundation, referred to herein as the BIRD Grant. Such grant, along with certain royalty payments, shall only be repaid to the BIRD Foundation upon the commercial success of the Rahan Joint Venture's technology. The commercial success is measured based upon certain benchmarks and/or milestones achieved by the Rahan Joint Venture. The Rahan Joint Venture reports these benchmarks periodically to the BIRD Foundation. As of September 30, 2002, we have directly received a total of \$79,061, \$11,089 of which was received during the current quarter, from the BIRD Foundation for research and development expenses we have incurred which are associated with the research and development

efforts of the Rahan Joint Venture. We expect to receive additional installments of the BIRD Grant as our expenditures associated with the Rahan Joint Venture increase above certain levels. Our portion of the Rahan Joint Venture's aggregate expenses totaled approximately \$15,000 and \$13,000 for the three months ended September 30, 2002 and September 30, 2001, respectively, and are included in research and development expenses. As of September 30, 2002, our portion of the Rahan Joint Venture's aggregate expenses to date totaled approximately \$145,000.

All aspects of the Rahan Joint Venture's research and development initiative are proceeding on time, or are ahead of the original schedule laid out at the inception of the Rahan Joint Venture. Both the DHS and lipase genes have been identified and isolated in banana, and the Rahan Joint Venture is currently in the process of silencing these genes. The resultant plants will be tested to assess extended shelf-life of banana fruit and enhanced tolerance to environmental stress. Banana plants containing our technology are currently being tested in field plantings.

Consistent with our commercialization strategy, we intend to attract other companies interested in strategic partnerships, joint ventures or licensing our technology. The Harris Moran License, the ArborGen Agreement, the Cal/West License and the Rahan Joint Venture are steps toward the execution of our strategy.

INTELLECTUAL PROPERTY

Research and Development

The inventor of our technology, John E. Thompson, Ph.D., is the Associate Vice-President, Research and former Dean of Science at the University of Waterloo in Ontario, Canada, and is our Executive Vice President of Research and Development. Dr. Thompson is also one of our directors and owns 4.8% of the outstanding shares of our common stock, \$0.01 par value, as of September 30, 2002. On September 1, 1998, we entered into a three-year research and development agreement with the University of Waterloo and Dr. Thompson as the principal inventor, referred to herein as the First Research and Development Agreement. Effective September 1, 2001 and 2002, we extended the First Research and Development Agreement for an additional one-year period and two-year period, respectively. Effective May 1, 2002, we entered into a new one-year research and development agreement with the University of Waterloo and Dr. Thompson, referred to herein as the Second Research and Development Agreement. The First Research and Development Agreement and the Second Research and Development Agreement are collectively referred to herein as the Research and Development Agreements.

The Research and Development Agreements provide that the University of Waterloo will perform research and development under our direction, and we will pay for the cost of this work and make certain payments to the University of Waterloo. In return for payments made under the Research and Development Agreements, we have all rights to the intellectual property derived from the research. As of September 30, 2002, we have paid the University of Waterloo an aggregate of approximately US \$1,120,000 under the First Research and Development Agreement. Under the second extension to the First Research and Development Agreement, we are obligated to pay Can \$1,092,800, which represented approximately US \$690,000 as of

September 30, 2002. Under the Second Research and Development Agreement, we are obligated to pay Can \$50,000, which represented approximately US \$32,000 as of September 30, 2002. During the three-month periods ended September 30, 2002 and September 30, 2001, we incurred expenses of \$90,094 and \$47,128, respectively, in connection with the Research and Development Agreements.

Effective May 1, 1999, we entered into a consulting agreement for research and development with Dr. Thompson. On July 1, 2001, we renewed the consulting agreement with Dr. Thompson for an additional three-year term as provided for under the terms and conditions of the agreement. This agreement provides for monthly payments of \$3,000 to Dr. Thompson through June 2004. The agreement shall automatically renew for an additional three-year term, unless either of the parties provides the other with written notice within six months of the end of the term.

In September 2002, we entered into an exclusive worldwide collaboration agreement, referred to herein as the Tilligen Agreement, with Tilligen, Inc. to establish a research alliance to develop and commercialize certain genetically enhanced species of produce. Under the Tilligen Agreement, Tilligen will license its proprietary technology to us and will also perform certain transformation functions in order to develop seeds in certain species of produce that have been enhanced with our technology. The Tilligen Agreement will continue until the expiration of the patents set forth in the agreement, unless terminated earlier by either party pursuant to the terms of the agreement. In connection with the execution of the Tilligen Agreement, we incurred an initial research and development fee of \$200,000, which was paid in October 2002 and will be amortized over the term of the research to be performed under the agreement. Upon the completion of certain development benchmarks, we will incur additional research and development fees, and upon commercialization of the enhanced produce, we will make certain royalty payments to Tilligen.

Our future research and development program focuses on the discovery and development of new gene technologies which intend to extend shelf life and to confer other positive traits on fruits, flowers, vegetables and agronomic row crops and on expanding our mammalian research programs. Over the next twelve months, we are planning the following research and development initiatives: (i) the development of plants that possess new beneficial traits, such as protection against drought, with emphasis on lettuce, melon, corn, forestry products, alfalfa and the other species described below with several entities, including Tilligen; (ii) the development of enhanced lettuce and melon plants through the Harris Moran License; (iii) the development of enhanced trees through the ArborGen Agreement; (iv) the development of enhanced alfalfa through the Cal/West License; (v) the isolation of new genes in the Arabidopsis, tomato, lettuce, soybean, rape seed (canola) and melon plants, among others, at the University of Waterloo; (vi) the isolation of new genes in the banana plant through the Rahan Joint Venture; (vii) the transformation of seed enhanced with our technology; and (viii) assessing the function of the DHS and Factor 5A genes in human diseases at the University of Waterloo and the University of Colorado. We may further expand our research and development program beyond the initiatives listed above.

Patent Applications

Dr. Thompson and his colleagues, Dr. Yuwen Hong and Dr. Katalin Hudak, filed a patent application on June 26, 1998, referred to herein as the Original Patent Application, to protect their invention, which is directed to methods for controlling senescence in plants. By assignment dated June 25, 1998 and recorded with the United States Patent and Trademark Office, or PTO, on June 26, 1998, Drs. Thompson, Hong and Hudak assigned all of their rights in and to the Original Patent Application and any other applications filed in the United States or elsewhere with respect to the invention and/or improvements thereto to Senesco, L.L.C. We succeeded to the assignment and ownership of the Original Patent Application. Drs. Thompson, Hong and Hudak filed an amendment to the Original Patent Application on February 16, 1999, referred to herein as the Amended Patent Application and together with the Original Patent Application, the First Patent Application, titled "DNA Encoding A Plant Lipase, Transgenic Plants and a Method for Controlling Senescence in Plants." The Amended Patent Application serves as a continuation of the Original Patent Application. Concurrent with the filing of the Amended Patent Application with the PTO and as in the case of the Original Patent Application, Drs. Thompson, Hong and Hudak assigned to us all of their rights in and to the Amended Patent Application and any other applications filed in the United States or elsewhere with respect to such invention and/or improvements thereto. Drs. Thompson, Hong and Hudak have received shares of our common stock in consideration for the assignment of the First Patent Application. The inventions, which were the subject of the First Patent Application, include a method for controlling senescence of plants, a vector containing a cDNA whose expression regulates senescence, and a transformed microorganism expressing the lipase of the cDNA. We believe that the inventions provide a means for delaying deterioration and spoilage, which could greatly increase the shelf-life of fruits, vegetables, and flowers by silencing or substantially repressing the expression of the lipase gene induced coincident with the onset of senescence.

We filed a second patent application, referred to herein as the Second Patent Application, and together with the First Patent Application, collectively, the Patent Applications, on July 6, 1999, titled "DNA Encoding A Plant Deoxyhypusine Synthase, Transgenic Plants and a Method for Controlling Programmed Cell Death in Plants." The inventors named on the patent are Drs. John E. Thompson, Tzann-Wei Wang and Dongen Lily Lu. Concurrent with the filing of the Second Patent Application with the PTO and as in the case of the First Patent Application, Drs. Thompson, Wang and Lu assigned to us all of their rights in and to the Second Patent Application and any other applications filed in the United States or elsewhere with respect to such invention and/or improvements thereto. Drs. Thompson, Wang and Lu have received options to purchase our common stock as consideration for the assignments of the Second Patent Application. The inventions include a method for the genetic modification of plants to control the onset of either age-related or stress-induced senescence, an isolated DNA molecule encoding a senescence induced gene, and an isolated protein encoded by the DNA molecule.

We have broadened the scope of our intellectual property protection by utilizing the Patent Cooperation Treaty to facilitate international filing and prosecution of the Patent Applications. The First Patent Application was published through the Patent Cooperation Treaty in August 2000, and then between August 2001 and October 2001, was filed in Australia, Canada, China, Japan, Korea, New Zealand and Europe through the European Patent Office, which has twenty member states. Israel and Mexico are the last remaining countries in which we

have opted to file that have yet to issue a filing date. The Patent Cooperation Treaty published the Second Patent Application in January 2001.

We have filed several new Continuations in Part on both the First Patent Application and the Second Patent Application to ensure, on an ongoing basis, that our intellectual property pertaining to new technological developments is appropriately protected. We have also filed one additional application followed by a Substantial Continuation in Part, in addition to those listed above, which pertain to the possible mammalian applicability of our technology. The new application is focused on suppressing cell death as a prospective therapy for a wide range of diseases and the Continuation in Part focuses on enhancing cell death as a means of treating cancer. We intend to continue our strategy of enhancing these new patent applications through the addition of data as it is collected.

GOVERNMENT REGULATION

At present, the U.S. federal government regulation of biotechnology is divided among three agencies: (i) the U.S. Department of Agriculture regulates the import, field-testing and interstate movement of specific types of genetic engineering that may be used in the creation of transformed plants; (ii) the Environmental Protection Agency regulates activity related to the invention of plant pesticides and herbicides, which may include certain kinds of transformed plants; and (iii) the Food and Drug Administration regulates foods derived from new plant varieties. The FDA requires that transformed plants meet the same standards for safety that are required for all other plants and foods in general. Except in the case of additives that significantly alter a food's structure, the FDA does not require any additional standards or specific approval for genetically engineered foods but expects transformed plant developers to consult the FDA before introducing a new food into the market place.

We believe that our current activities, which to date have been confined to research and development efforts, do not require licensing or approval by any governmental regulatory agency. However, we, or our licensees, may be required to obtain such licensing or approval from governmental regulatory agencies prior to the commercialization of our genetically transformed plants and mammalian technology.

EMPLOYEES

In addition to the scientists performing funded research for us at the University of Waterloo and the University of Colorado, as of September 30, 2002 and currently, we have five employees and one consultant, four of whom are executive officers and are involved in our management.

The officers are assisted by a Scientific Advisory Board that consists of prominent experts in the fields of plant and mammalian cell biology. Alan Bennett, Ph.D., who serves as the Chairman of the Scientific Advisory Board, is the Executive Director of the Office of Technology Transfer at the University of California. His research interests include: the molecular biology of tomato fruit development and ripening; the molecular basis of membrane transport; and cell wall disassembly. Charles A. Dinarello, M.D., who serves as a member of the Scientific Advisory Board, is a Professor of Medicine at the University of Colorado School of

Medicine, a member of the U.S. National Academy of Sciences and the author of over 500 published research articles. In addition to his active academic research career, Dr. Dinarello has held advisory positions with two branches of the National Institutes of Health and positions on the Board of Governors of both the Weizmann Institute and Ben Gurion University. Russell L. Jones, Ph.D., who serves as a member of the Scientific Advisory Board, is a professor at the University of California, Berkeley and an expert in plant cell biology and cell death. Dr. Jones is also an editor of *Planta*, *Annual Review of Plant Physiology* and *Plant Molecular Biology* as well as *Research Notes in Plant Science*. Additionally, he has held positions on the editorial boards of *Plant Physiology* and *Trends in Plant Science*.

In addition to his service on the Scientific Advisory Board, we utilize Dr. Bennett as a consultant experienced in plant transformation. Effective November 1, 2001, we had entered into a one-year consulting agreement with Dr. Bennett, which provided for monthly payments of \$2,400 to Dr. Bennett through October 31, 2002. Effective November 1, 2002, we entered into another one-year consulting agreement with Dr. Bennett on the same terms and conditions.

Furthermore, pursuant to the Research and Development Agreements, the majority of our research and development activities are conducted at the University of Waterloo under the supervision of Dr. Thompson. We utilize the University's substantial research staff including graduate and post-graduate researchers.

We have also undertaken pre-clinical apoptosis research at the University of Colorado under the supervision of Dr. Dinarello. This research is performed pursuant to specific project proposals that have agreed-upon research outlines, timelines and budgets. We may also contract research to additional university laboratories or to other companies in order to advance the development of our technology.

We may hire additional employees over the next twelve months to meet the needs created by possible expansion of our marketing activities and product development.

SAFE HARBOR STATEMENT

The statements contained in this Quarterly Report on Form 10-QSB that are not historical facts are forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995. Such forward-looking statements may be identified by, among other things, the use of forward-looking terminology such as "believes," "expects," "may," "will," "should," or "anticipates" or the negative thereof or other variations thereon or comparable terminology, or by discussions of strategy that involve risks and uncertainties. In particular, our statements regarding the anticipated growth in the markets for our technologies, the continued advancement of our research, the approval of our Patent Applications, the possibility of governmental approval in order to sell or offer for sale to the general public a genetically engineered plant or plant product, the successful implementation of our commercialization strategy, including the success of the Harris Moran License, the ArborGen Agreement, the Cal/West License, the successful implementation of the Rahan Joint Venture, the success of the Tilligen Agreement and the Research and Development Agreements, statements relating to our Patent Applications, the anticipated longer term growth of our business, and the timing of the projects and trends in future

operating performance are examples of such forward-looking statements. The forward-looking statements include risks and uncertainties, including, but not limited to, the timing of revenues due to the variability in size, scope and duration of research projects, regulatory delays, research study results which lead to cancellations of research projects, and other factors, including general economic conditions and regulatory developments, not within our control. The factors discussed herein and expressed from time to time in our filings with the Securities and Exchange Commission could cause actual results and developments to be materially different from those expressed in or implied by such statements. The forward-looking statements are made only as of the date of this filing, and we undertake no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.

FACTORS THAT MAY AFFECT OUR BUSINESS, FUTURE OPERATING RESULTS AND FINANCIAL CONDITION

The more prominent risks and uncertainties inherent in our business are described below. However, additional risks and uncertainties may also impair our business operations. If any of the following risks actually occur, our business, financial condition or results of operations may suffer.

WE HAVE A LIMITED OPERATING HISTORY AND HAVE INCURRED SUBSTANTIAL LOSSES AND EXPECT FUTURE LOSSES.

We are a developmental stage biotechnology company with a limited operating history and limited assets and capital. We have incurred losses each year since inception and have an accumulated deficit of \$7,944,953 at September 30, 2002. We have generated minimal revenues by licensing certain of our technology to companies willing to share in our development costs. However, our technology may not be ready for widespread commercialization for several years. We expect to continue to incur losses over the next two to three years because we anticipate that our expenditures on research, product development, marketing and administrative activities will significantly exceed our revenues during that period. We cannot predict when, if ever, we will become profitable.

WE DEPEND ON A SINGLE PRINCIPAL TECHNOLOGY.

Our primary business is the development and commercial exploitation of technology to identify, isolate, characterize, and silence genes which control the aging and death of cells in plants and mammals. Our future revenue and profitability critically depend upon our ability to successfully develop senescence and apoptosis gene technology and later market and license such technology at a profit. We have conducted experiments on certain crops with favorable results and have conducted certain preliminary cell-line experiments, which have provided us with data upon which we have designed additional research programs. However, we cannot give any assurance that our technology will be commercially successful or economically viable for all crops or mammalian applications.

In addition, no assurance can be given that adverse consequences might not result from the use of our technology such as the development of negative effects on plants or mammals or reduced benefits in terms of crop yield or protection. Our failure to develop a commercially viable product, to obtain market acceptance of our technology or to successfully commercialize such technology would have a material adverse effect on our business.

WE OUTSOURCE ALL OF OUR RESEARCH AND DEVELOPMENT ACTIVITIES.

We rely on third parties to perform all of our research and development activities. Our primary research and development efforts take place at the University of Waterloo in Ontario, Canada, where our technology was developed, at the University of Colorado and at Tilligen, Inc. At this time, we do not have the internal capabilities to perform our research and development activities. Accordingly, the failure of third-party research partners, such as the University of Waterloo, to perform under agreements entered into with us, or our failure to renew important research agreements with these third parties, would have a material adverse effect on our ability to develop and exploit our technology.

WE HAVE SIGNIFICANT FUTURE CAPITAL NEEDS.

As of September 30, 2002, we had cash and highly-liquid investments valued at \$4,130,802 and working capital of \$3,425,495. We believe that we can operate according to our current business plan for at least twelve months using our available reserves. To date, we have generated minimal revenues and anticipate that our operating costs will exceed any revenues generated over the next several years. Therefore, we anticipate that we will be required to raise additional capital in the future in order to operate according to our current business plan. We may require additional funding in less than twelve months, and additional funding may not be available on favorable terms, if at all. In addition, in connection with such funding, if we need to issue more equity securities than our certificate of incorporation currently authorizes, or more than 20% of the shares of our common stock outstanding, we may need stockholder approval. If stockholder approval is not obtained or if adequate funds are not available, we may be required to curtail operations significantly or to obtain funds through arrangements with collaborative partners or others that may require us to relinquish rights to certain of our technologies, product candidates, products or potential markets. Investors may experience dilution in their investment from future offerings of our common stock. For example, if we raise additional capital by issuing equity securities, such an issuance would reduce the percentage ownership of existing stockholders. In addition, assuming the exercise of all options and warrants granted, as of September 30, 2002, we had 2,301,802 shares of common stock authorized but unissued, which may be issued from time to time by our board of directors without stockholder approval. Furthermore, we may need to issue securities that have rights, preferences and privileges senior to our common stock. Failure to obtain financing on acceptable terms would have a material adverse effect on our liquidity.

Since inception, we have financed all of our operations through private equity financings. Our future capital requirements depend on numerous factors, including:

- o the scope of our research and development;
- o our ability to attract business partners willing to share in our development costs;
- o our ability to successfully commercialize our technology;
- o competing technological and market developments;
- o our ability to enter into collaborative arrangements for the development, regulatory approval and commercialization of other products; and
- o the cost of filing, prosecuting, defending and enforcing patent claims and other intellectual property rights.

OUR BUSINESS DEPENDS ON OUR PATENTS, LICENSES AND PROPRIETARY RIGHTS AND THE ENFORCEMENT OF THESE RIGHTS.

As a result of the substantial length of time and expense associated with developing products and bringing them to the marketplace in the agricultural and biotechnology industries, obtaining and maintaining patent and trade secret protection for technologies, products and processes is of vital importance. Our success will depend in part on several factors, including, without limitation:

- o our ability to obtain patent protection for technologies, products and processes;
- o our ability to preserve trade secrets; and
- o our ability to operate without infringing the proprietary rights of other parties both in the United States and in foreign countries.

We have filed three patent applications in the United States for our technology which is vital to our primary business, two of which have been filed internationally. We have also filed six Continuations in Part on these patent applications. Our success depends in part upon patents being granted from our pending patent applications and, if granted, the enforcement of our patent rights.

Furthermore, although we believe that our technology is unique and will not violate or infringe upon the proprietary rights of any third party, there can be no assurance that such claims will not be made or if made, could be successfully defended against. If we do not obtain and maintain patent protection, we may face increased competition in the United States and internationally, which would have a material adverse effect on our business.

Since patent applications in the United States are maintained in secrecy until patents are issued, and since publication of discoveries in the scientific and patent literature tend to lag behind actual discoveries by several months, we cannot be certain that we were the first creator of the inventions covered by our pending patent applications or that we were the first to file patent applications for these inventions.

In addition, among other things, we cannot guarantee that:

- o our patent applications will result in the issuance of patents;
- o any patents issued or licensed to us will be free from challenge and that if challenged, would be held to be valid;
- o any patents issued or licensed to us will provide commercially significant protection for our technology, products and processes;
- o other companies will not independently develop substantially equivalent proprietary information which is not covered by our patent rights;
- o other companies will not obtain access to our know-how;
- o other companies will not be granted patents that may prevent the sale of one or more of our products; or
- o we will not require licensing and the payment of significant fees or royalties to third parties for the use of their intellectual property in order to enable us to conduct our business.

If any relevant claims of third-party patents which are adverse to us are upheld as valid and enforceable, we could be prevented from commercializing our technology or could be required to obtain licenses from the owners of such patents. We cannot guarantee that such licenses would be available or, even if available, would be on acceptable terms.

We could become involved in infringement actions to enforce and/or protect our patents. Regardless of the outcome, patent litigation is expensive and time consuming and would distract our management from other activities.

The laws of some foreign countries do not protect proprietary rights to the same extent as the laws of the United States, and many companies have encountered significant problems and costs in protecting their proprietary rights in these foreign countries.

Patent law is still evolving relative to the scope and enforceability of claims in the fields in which we operate. We are like most biotechnology companies in that our patent protection is highly uncertain and involves complex legal and technical questions for which legal principles are not yet firmly established. In addition, if issued, our patents may not contain claims sufficiently broad to protect us against third parties with similar technologies or products, or provide us with any competitive advantage.

The U.S. Patent and Trademark Office and the courts have not established a consistent policy regarding the breadth of claims allowed in biotechnology patents. The allowance of broader claims may increase the incidence and cost of patent interference proceedings and the risk of infringement litigation. On the other hand, the allowance of narrower claims may limit the value of our proprietary rights.

Our success also depends upon know-how, unpatentable trade secrets, and the skills, knowledge and experience of our scientific and technical personnel. As a result, we require all employees to agree to a confidentiality provision that prohibits the disclosure of confidential information to anyone outside of our company, during the term of employment and thereafter. We also require all employees to disclose and assign to us the rights to their ideas, developments, discoveries and inventions. We also attempt to enter into similar agreements with our consultants, advisors and research collaborators. We cannot guarantee adequate protection for our trade secrets, know-how or other proprietary information against unauthorized use or disclosure. We occasionally provide information to research collaborators in academic institutions and request the collaborators to conduct certain tests. We cannot guarantee that the academic institutions will not assert intellectual property rights in the results of the tests conducted by the research collaborators, or that the academic institutions will grant licenses under such intellectual property rights to us on acceptable terms, if at all. If the assertion of intellectual property rights by an academic institution is substantiated, and the academic institution does not grant intellectual property rights to us, these events could have a material adverse effect on our business and financial results.

WE WILL HAVE TO PROPERLY MANAGE OUR GROWTH.

As our business grows, we may need to add employees and enhance our management, systems and procedures. We will need to successfully integrate our internal operations with the operations of our marketing partners, manufacturers, distributors and suppliers to produce and market commercially viable products. Although we do not presently intend to conduct research and development activities in-house, we may undertake those activities in the future. Expanding

our business will place a significant burden on our management and operations. Our failure to effectively respond to changes brought about by our growth may have a material adverse effect on our business and financial results.

WE HAVE NO MARKETING OR SALES HISTORY AND DEPEND ON THIRD-PARTY MARKETING PARTNERS.

We have no history of marketing, distributing or selling biotechnology products and we are relying on our ability to successfully establish marketing partners or other arrangements with third parties to market, distribute and sell a commercially viable product both here and abroad. Our business plan also envisions creating strategic alliances to access needed commercialization and marketing expertise. We may not be able to attract qualified sub-licensees, distributors or marketing partners, and even if qualified, such marketing partners may not be able to successfully market products or human health applications developed with our technology. If we fail to successfully establish distribution channels, or if our marketing partners fail to provide adequate levels of sales, we will not be able to generate significant revenue.

WE DEPEND ON PARTNERS TO DEVELOP AND MARKET PRODUCTS.

At our current state of development, our technology is not ready to be marketed to consumers. We intend to follow a multi-faceted commercialization strategy that involves the licensing of our technology to business partners for the purpose of further technological development, marketing and distribution. We are seeking business partners who will share the burden of our development costs while our products are still being developed, and who will pay us royalties when they market and distribute our products upon commercialization. The establishment of joint ventures and strategic alliances may create future competitors, especially in certain regions abroad where we do not pursue patent protection. If we fail to establish beneficial business partners and strategic alliances, our growth will suffer and our product development may be harmed.

COMPETITION IN THE AGRICULTURAL AND BIOTECHNOLOGY INDUSTRIES IS INTENSE AND TECHNOLOGY IS CHANGING RAPIDLY.

Many agricultural and biotechnology companies are engaged in research and development activities relating to senescence and apoptosis. The market for plant protection and yield enhancement products is intensely competitive, rapidly changing and undergoing consolidation. We may be unable to compete successfully against our current and future competitors, which may result in price reductions, reduced margins and the inability to achieve market acceptance for our products. Our competitors in the field of plant senescence gene technology are companies that develop and produce transgenic plants and include major international agricultural companies, specialized biotechnology companies, research and academic institutions and, potentially, our joint venture and strategic alliance partners. Such companies include: Paradigm Genetics; Aventis Crop Science; Mendel Biotechnology; Bionova Holding Corporation; Renessen LLC; Exelixis Plant Sciences, Inc.; PlantGenix, Inc.; and Eden Bioscience, among others. Some of the companies involved in apoptosis research include: Cell Pathways, Inc.; Trevigen, Inc.; Idun Pharmaceuticals; Novartis; Introgen Therapeutics, Inc.; Genta, Inc.; and Oncogene, Inc. Many of these competitors have substantially greater financial, marketing, sales, distribution and technical resources than us and have more experience in research and development, clinical trials, regulatory matters, manufacturing and marketing. We anticipate increased competition in the future as new companies enter the market and new

technologies become available. Our technology may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors.

OUR BUSINESS IS SUBJECT TO VARIOUS GOVERNMENT REGULATIONS.

At present, the U.S. federal government regulation of biotechnology is divided among three agencies: (i) the USDA regulates the import, field testing and interstate movement of specific types of genetic engineering that may be used in the creation of transgenic plants; (ii) the EPA regulates activity related to the invention of plant pesticides and herbicides, which may include certain kinds of transgenic plants; and (iii) the FDA regulates foods derived from new plant varieties. The FDA requires that transgenic plants meet the same standards for safety that are required for all other plants and foods in general. Except in the case of additives that significantly alter a food's structure, the FDA does not require any additional standards or specific approval for genetically engineered foods, but expects transgenic plant developers to consult the FDA before introducing a new food into the marketplace. Use of our technology, if developed for human health applications, will also be subject to FDA regulation.

We believe that our current activities, which to date have been confined to research and development efforts, do not require licensing or approval by any governmental regulatory agency. However, federal, state and foreign regulations relating to crop protection products and human health applications developed through biotechnology are subject to public concerns and political circumstances, and, as a result, regulations have changed and may change substantially in the future. Accordingly, we may become subject to governmental regulations or approvals or become subject to licensing requirements in connection with our research and development efforts. We may also be required to obtain such licensing or approval from the governmental regulatory agencies described above, or from state agencies, prior to the commercialization of our genetically transformed plants and mammalian technology. In addition, our marketing partners who utilize our technology or sell products grown with our technology may be subject to government regulations. The imposition of unfavorable governmental regulations on our technology or the failure to obtain licenses or approvals in a timely manner would have a material adverse effect on our business.

THE HUMAN HEALTH APPLICATIONS OF OUR TECHNOLOGY ARE SUBJECT TO A LENGTHY AND UNCERTAIN REGULATORY PROCESS.

The FDA must approve any drug or biologic product before it can be marketed in the United States. In addition, prior to being sold outside of the U.S., any products resulting from the application of our mammalian technology must be approved by the regulatory agencies of foreign governments. Prior to filing a new drug application or biologics license application with the FDA, we would have to perform extensive pre-clinical testing and clinical trials, which could take several years and may require substantial expenditures. Any failure to obtain regulatory approval could delay or prevent us from commercializing our mammalian technology.

CLINICAL TRIALS ON OUR HUMAN HEALTH APPLICATIONS MAY BE UNSUCCESSFUL IN DEMONSTRATING EFFICACY AND SAFETY, WHICH COULD DELAY OR PREVENT REGULATORY APPROVAL.

Clinical trials may reveal that our mammalian technology is ineffective or harmful, which would significantly limit the possibility of obtaining regulatory approval for any drug or biologic

product manufactured with our technology. The FDA requires submission of extensive pre-clinical, clinical and manufacturing data to assess the efficacy and safety of potential products. Furthermore, the success of preliminary studies does not ensure commercial success, and later-stage clinical trials may fail to confirm the results of the preliminary studies.

CONSUMERS MAY NOT ACCEPT OUR TECHNOLOGY.

We cannot guarantee that consumers will accept products containing our technology. Recently, there has been consumer concern and consumer advocate activism with respect to genetically engineered consumer products. The adverse consequences from heightened consumer concern in this regard could affect the markets for our proposed products and could also result in increased government regulation in response to that concern. If the public or potential customers perceive our technology to be genetic modification or genetic engineering, agricultural products grown with our technology may not gain market acceptance.

WE DEPEND ON OUR KEY PERSONNEL.

We are highly dependent on our scientific advisors, consultants and third-party research partners. Dr. Thompson is the inventor of our technology and the driving force behind our current research. The loss of Dr. Thompson would severely hinder our technological development. Our success will also depend in part on the continued service of our key employees and our ability to identify, hire and retain additional qualified personnel in an intensely competitive market. We do not maintain key person life insurance on any member of management. The failure to attract and retain key personnel could limit our growth and hinder our research and development efforts.

CERTAIN PROVISIONS OF OUR CHARTER, BY-LAWS AND DELAWARE LAW COULD MAKE A TAKEOVER DIFFICULT.

Certain provisions of our certificate of incorporation and by-laws could make it more difficult for a third party to acquire control of us, even if the change in control would be beneficial to stockholders. Our certificate of incorporation authorizes our board of directors to issue, without stockholder approval, except as may be required by the rules of the American Stock Exchange, 5,000,000 shares of preferred stock with voting, conversion and other rights and preferences that could adversely affect the voting power or other rights of the holders of our common stock. Similarly, our by-laws do not restrict our board of directors from issuing preferred stock without stockholder approval.

In addition, we are subject to the Business Combination Act of the Delaware General Corporation Law which, subject to certain exceptions, restricts certain transactions and business combinations between a corporation and a stockholder owning 15% or more of the corporation's outstanding voting stock for a period of three years from the date such stockholder becomes a 15% owner. These provisions may have the effect of delaying or preventing a change of control of us without action by our stockholders and, therefore, could adversely affect the value of our common stock.

Furthermore, in the event of our merger or consolidation with or into another corporation, or the sale of all or substantially all of our assets in which the successor corporation does not assume outstanding options or issue equivalent options, our board of directors is required to provide accelerated vesting of outstanding options.

OUR MANAGEMENT AND OTHER AFFILIATES HAVE SIGNIFICANT CONTROL OF OUR COMMON STOCK AND COULD CONTROL OUR ACTIONS IN A MANNER THAT CONFLICTS WITH OUR INTERESTS AND THE INTERESTS OF OTHER STOCKHOLDERS.

As of September 30, 2002, our executive officers, directors and affiliated entities together beneficially own approximately 51.62% of the outstanding shares of our common stock, assuming the exercise of options and warrants which are currently exercisable, held by these stockholders. As a result, these stockholders, acting together, will be able to exercise considerable influence over matters requiring approval by our stockholders, including the election of directors, and may not always act in the best interests of other stockholders. Such a concentration of ownership may have the effect of delaying or preventing a change in control of us, including transactions in which our stockholders might otherwise receive a premium for their shares over then current market prices.

OUR STOCKHOLDERS MAY EXPERIENCE SUBSTANTIAL DILUTION AS A RESULT OF OUTSTANDING OPTIONS AND WARRANTS TO PURCHASE OUR COMMON STOCK.

As of September 30, 2002, we have granted options outside of our stock option plan to purchase 10,000 shares of our common stock and warrants to purchase 4,192,153 shares of our common stock. In addition, as of September 30, 2002, we have reserved 2,000,000 shares of our common stock for issuance upon the exercise of options granted pursuant to our stock option plan, 1,616,000 of which have been granted and 384,000 of which may be granted in the future. The exercise of these options and warrants will result in dilution to our existing stockholders and could have a material adverse effect on our stock price.

SHARES ELIGIBLE FOR PUBLIC SALE.

As of September 30, 2002, we had 11,880,045 shares of our common stock issued and outstanding, of which approximately 8,000,000 shares are registered pursuant to a registration statement on Form S-3, which was deemed effective on June 28, 2002, and the remainder of which are in the public float. In addition, we intend to register 2,000,000 shares of our common stock underlying options granted or to be granted under our stock option plan. Consequently, sales of substantial amounts of our common stock in the public market, or the perception that such sales could occur, may adversely affect the market price of our common stock.

OUR STOCK HAS A LIMITED TRADING MARKET.

Our common stock is quoted on the American Stock Exchange and currently has a limited trading market. We cannot assure that an active trading market will develop or, if developed, will be maintained. As a result, our stockholders may find it difficult to dispose of shares of our common stock and, as a result, may suffer a loss of all or a substantial portion of their investment.

OUR STOCK PRICE MAY FLUCTUATE.

The market price of our common stock may fluctuate significantly in response to a number of factors, some of which are beyond our control. These factors include:

- o quarterly variations in operating results;
- o the progress or perceived progress of our research and development efforts;
- o changes in accounting treatments or principles;

- o announcements by us or our competitors of new product and service offerings, significant contracts, acquisitions or strategic relationships;
- o additions or departures of key personnel;
- o future offerings or resales of our common stock or other securities;
- o stock market price and volume fluctuations of publicly-traded companies in general and development companies in particular; and
- o general political, economic and market conditions.

IF OUR COMMON STOCK IS DELISTED FROM THE AMERICAN STOCK EXCHANGE, IT MAY BE SUBJECT TO THE "PENNY STOCK" REGULATIONS WHICH MAY AFFECT THE ABILITY OF OUR STOCKHOLDERS TO SELL THEIR SHARES.

In general, regulations of the SEC define a "penny stock" to be an equity security that is not listed on a national securities exchange or Nasdaq and that has a market price of less than \$5.00 per share or with an exercise price of less than \$5.00 per share, subject to certain exceptions. If the American Stock Exchange delists our common stock, it could be deemed a penny stock, which imposes additional sales practice requirements on broker-dealers that sell such securities to persons other than certain qualified investors. For transactions involving a penny stock, unless exempt, a broker-dealer must make a special suitability determination for the purchaser and receive the purchaser's written consent to the transaction prior to the sale. In addition, the rules on penny stocks require delivery, prior to and after any penny stock transaction, of disclosures required by the SEC.

If our common stock were subject to the rules on penny stocks, the market liquidity for our common stock could be severely and adversely affected. Accordingly, the ability of holders of our common stock to sell their shares in the secondary market may also be adversely affected.

INCREASING POLITICAL AND SOCIAL TURMOIL, SUCH AS TERRORIST AND MILITARY ACTIONS, INCREASE THE DIFFICULTY FOR US AND OUR STRATEGIC PARTNERS TO FORECAST ACCURATELY AND PLAN FUTURE BUSINESS ACTIVITIES.

Recent political and social turmoil, including the terrorist attacks of September 11, 2001 and the current crisis in the Middle East, can be expected to put further pressure on economic conditions in the United States and worldwide. These political, social and economic conditions may make it difficult for us to plan future business activities. Specifically, if the current crisis in Israel continues to escalate, the Rahan Joint Venture could be adversely affected.

LIQUIDITY AND CAPITAL RESOURCES

Overview

As of September 30, 2002, our cash balance and investments totaled \$4,130,802, and we had working capital of \$3,425,495. As of September 30, 2002, we had a federal tax loss carry-forward of approximately \$6,150,000 and a state tax loss carry-forward of approximately \$1,950,000 to offset future taxable income. There can be no assurance, however, that we will be able to take advantage of any or all of such tax loss carry-forwards, if at all, in future fiscal years.

Financing Needs

We have research and development agreements with the University of Waterloo, which provide for research and development services to be performed at the direction of our company and Dr. Thompson. Effective September 1, 2002, we extended our First Research and Development Agreement for an additional two-year period, in the amount of Can \$1,092,800, which represented approximately US \$690,000 as of September 30, 2002. Effective May 1, 2002, we entered into a Second Research and Development for a one-year period, under which we are obligated to pay Can \$50,000, which represented approximately US \$32,000 as of September 30, 2002.

In September 2002, we entered into the Tilligen Agreement, which provides us with a license to use their technology to develop and commercialize enhanced species of produce. The agreement will continue until the expiration of the patents set forth in the agreement, unless terminated earlier by either party pursuant to the terms of the agreement. In connection with the execution of the agreement, we incurred an initial fee of \$200,000, which was paid in October 2002 and will be amortized over the term of the research to be performed under the agreement. Upon the completion of certain benchmarks, we will incur additional research and development fees and will make certain royalty payments to Tilligen.

We lease office space in New Brunswick, New Jersey for a monthly rental fee of \$2,838, subject to certain escalations for our proportionate share of increases in the building's operating costs. The lease expires in May 2006.

We have employment agreements with certain employees, some of whom are also our stockholders, which provide for a base compensation and additional amounts, as set forth in each agreement. The agreements expire between January 2004 and October 2004. As of September 30, 2002, future base compensation to be paid under the agreements through October 2004 totals \$513,925.

We have consulting agreements with each of Dr. Thompson and Dr. Bennett, which provide for monthly payments in exchange for research and development services. The agreement with Dr. Thompson provides for monthly payments of \$3,000 through June 2004, and is automatically renewable unless terminated by either party within six months of the end of the term. The agreement with Dr. Bennett provides for monthly payments of \$2,400 until November 2003.

In February 2002, we entered into scientific advisory board agreements with each of Dr. Russell A. Jones and Dr. Charles A. Dinarello, which provide for payments of \$10,000 per year, payable in quarterly installments, to each of Drs. Jones and Dinarello, respectively, through February 28, 2005 and may be terminated by either party within 90 days written notice.

The following table lists our cash contractual obligations as of September 30, 2002:

		Payments Due by Period			
Contractual Obligations	Total	Less than 1 year	1 - 3 years	4 - 5 years	After 5 years
Research and Development Agreements	\$ 710,950	\$ 365,950	\$ 345,000	\$ --	\$ --
Facility, Rent and Operating Leases	\$ 122,034	\$ 34,056	\$ 68,112	\$ 19,866	\$ --
Employment, Consulting and Scientific Advisory Board Agreements	\$ 657,325	\$ 395,300	\$ 262,025	\$ --	\$ --
Total Contractual Cash Obligations	\$ 1,490,309	\$ 759,306	\$ 675,137	\$ 19,866	\$ --

We expect our capital requirements to increase significantly over the next several years as we commence new research and development efforts, undertake new product development, increase our sales and administration infrastructure and embark on developing in-house business capabilities and facilities. Our future liquidity and capital funding requirements will depend on numerous factors, including, but not limited to, the levels and costs of our research and development initiatives and the cost and timing of the expansion of our sales and marketing efforts.

Capital Resources

Since inception, we have generated revenues of \$210,000 in connection with the initial fees received under the Harris Moran License, the ArborGen Agreement and the Cal/West License, \$10,000 of which was generated during the three months ended September 30, 2002. We have not been profitable since inception, we will continue to incur additional operating losses in the future, and we will require additional financing to continue the development and subsequent commercialization of our technology. While we do not expect to generate significant revenues from the sale of our products in the near future, we may enter into additional licensing or other agreements with marketing and distribution partners that may result in additional license fees, receive revenues from contract research, or other related revenue.

In November 2001, we entered into a worldwide exclusive development and license agreement with Harris Moran Seed Company to commercialize our technology in lettuce and certain melons for an indefinite term, unless terminated by either party pursuant to the terms of

the agreement. In connection with the Harris Moran License, we received an initial license fee of \$125,000 in November 2001. Upon the completion of certain marketing and development benchmarks set forth in the Harris Moran License, we will receive an additional \$3,875,000 in development payments over a multi-year period along with certain royalties upon commercial introduction.

In June 2002, we entered into a three-year worldwide exclusive development and option agreement with ArborGen to develop our technology in certain species of trees. In connection with the ArborGen Agreement, we received an initial development fee of \$75,000 in July 2002. Upon the completion of certain development benchmarks set forth in the ArborGen Agreement, we will receive an additional \$225,000 in periodic development payments over the term of the ArborGen Agreement. The ArborGen Agreement also grants ArborGen an option to acquire an exclusive worldwide license to commercialize our technology in various forestry products, and upon the execution of a license agreement, we will receive a license fee and royalties from ArborGen.

In September 2002, we entered into an exclusive development and license agreement with Cal/West to develop our technology in certain varieties of alfalfa. The Cal/West License will continue until the expiration of the patents set forth in the agreement, unless terminated earlier by either party pursuant to the terms of the agreement. The Cal/West License also grants Cal/West an exclusive option to develop our technology in various other forage crops. In connection with the execution of the Cal/West License, we received an initial fee of \$10,000 in September 2002. Upon the completion of certain development benchmarks, we will receive an additional \$20,000 in periodic payments, and upon the commercialization of certain products, we will receive royalty payments from Cal/West.

In September 2002, we received \$11,089 from the BIRD Foundation for research and development expenses that we have incurred in connection with the Rahan Joint Venture. We anticipate receiving additional funds from the BIRD Grant in the future to assist in funding the Rahan Joint Venture, subject to the Rahan Joint Venture achieving its stated research and development objectives.

Pursuant to the New Jersey Technology Tax Credit Transfer Program, we have applied to the New Jersey Economic Development Authority to sell our New Jersey net operating loss tax benefit in the amount of \$151,390 for the fiscal year ended June 30, 2001. We had previously received approval and subsequently sold our New Jersey net operating loss tax benefit for the fiscal years ended June 30, 2000 and June 30, 1999.

We anticipate that, based upon our current cash and investments, that we will be able to fund operations for at least the next twelve months. Over the next twelve months, we plan to fund our research and development and commercialization activities by utilizing our current cash balance and investments, achieving the milestones set forth in our current licensing agreements, and through the consummation of additional licensing agreements for our technology.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of financial statements in accordance with generally accepted accounting principles in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, including the recoverability of tangible and intangible assets, disclosure of contingent assets and liabilities as of the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period.

We recognize revenue in accordance with SEC Staff Accounting Bulletin No. 101, Revenue Recognition in Financial Statements, as amended by SAB 101A and 101B, collectively referred to herein as SAB 101. SAB 101 requires that four basic criteria must be met before revenue can be recognized: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services rendered; (3) the fee is fixed and determinable; and (4) collectibility is reasonably assured. Since we have met the criteria outlined in SAB 101 in connection with the initial license fees from our license and development agreements, we have recognized such fees as revenue at the time that the agreements were executed. Additional milestone payments to be received under the license and development agreements will be recognized as revenue when the milestones are achieved.

We record a valuation allowance to reduce our deferred tax assets to an amount that is more likely than not to be realized. While we consider historical levels of income, expectations and risks associated with estimates of future taxable income and ongoing prudent and feasible tax planning strategies in assessing the need for the valuation allowance, in the event that we determine that we would be able to realize deferred tax assets in the future in excess of the net recorded amount, an adjustment to the deferred tax asset would increase income in the period such determination was made. Likewise, should we determine that we would not be able to realize all or part of the net deferred tax asset in the future, an adjustment to the deferred tax asset would be charged to income in the period such determination was made. We have recorded valuation allowances against our entire deferred tax assets of \$2,270,000 at September 30, 2002. The valuation allowances relate primarily to the net operating loss carry forward deferred tax asset where the tax benefit of such asset is not assured.

We capitalize the direct legal costs associated with the filing and prosecution of our patent applications as intangible assets. We assess the impairment in value to our patent applications whenever events or circumstances indicate that their carrying value may not be recoverable. Factors considered important which could trigger an impairment review include the following:

- o significant negative industry trends;
- o significant underutilization of the assets; and
- o significant changes in how we use the assets or plan for their use.

As of September 30, 2002, we have determined that the estimated future undiscounted cash flows related to our patent applications will be sufficient to recover their carrying value.

We do not have any off-balance sheet arrangements.

RESULTS OF OPERATIONS

Three Months Ended September 30, 2002 and Three Months Ended September 30, 2001

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We are a development stage company. During the three-month period ended September 30, 2002, we had revenue of \$10,000 from the initial license fee in connection with the Cal/West License. During the three-month period ended September 30, 2001, we had no revenue.

Operating expenses consist of general and administrative expenses, research and development expenses and stock-based compensation. Operating expenses for the three-month periods ended September 30, 2002 and September 30, 2001 were \$547,188 and \$497,722, respectively, an increase of \$49,466 or 9.9%. This increase in operating expenses was primarily the result of an increase in general and administrative and research and development expenses, which was partially offset by a decrease in stock-based compensation.

General and administrative expenses consist primarily of payroll and benefits, professional and consulting services, investor relations, office rent and corporate insurance. General and administrative expenses for the three-month periods ended September 30, 2002 and September 30, 2001 were \$363,224 and \$280,719, respectively, an increase of \$82,505 or 29.4%. This increase was primarily the result of an increase in payroll and benefits, professional services and investor relations, which were partially offset by a decrease in consulting services. Consulting services decreased during the three-month period ended September 30, 2002, as a result of the hiring of Mr. Galton on October 4, 2001, as our President and Chief Executive Officer. During the three-month period ended September 30, 2001, the positions of President and CEO were held by two non-employee board members and accordingly, their compensation for those functions was categorized as consulting services. The decrease in consulting services was partially offset by an increase in employee payroll and benefits during the three-month period ended September 30, 2002 as a result of the President and CEO compensation being classified as payroll instead of consulting services. Professional services increased during the three-month period ended September 30, 2002, primarily as a result of additional legal costs associated with entering into development and license agreements, issuing press releases and preparing a resgistration statement for the common stock underlying the options issuable pursuant to our stock option plan. Investor relations increased during the three-month period ended September 30, 2002, primarily as a result of fees incurred for our investor relations firm, listing fees for the American Stock Exchange, financial consulting fees and costs associated with presentations to various analysts, money managers and funds, all of which were not incurred during the three months ended September 30, 2001.

Research and development expenses consist primarily of salaries, benefits and fees associated with the Research and Development Agreements, direct expenses charged to research and development projects and allocated overhead charged to research and development projects. Research and development expenses for the three months ended September 30, 2002 and September 30, 2001 were \$144,284 and \$63,155, respectively, an increase of \$81,129 or 128.5%. This increase was primarily the result of an increase in the research and development costs incurred in connection with research undertaken by the University of Waterloo and the

implementation of our mammalian cell research programs. The increase in costs incurred in connection with the research undertaken by the University of Waterloo was due to an inadvertent overcharge of approximately \$40,000 during the year ended June 30, 2001. Had the overcharge not occurred, research and development expenses for the three months ended September 30, 2001 would have been approximately \$103,155. Therefore, had the overcharge not occurred, research and development expenses for the three months ended September 30, 2002 would have increased by \$41,129, or 39.9%, from the three months ended September 30, 2001. This increase was the result of the implementation of our mammalian cell research programs.

Stock-based compensation consists of non-employee stock options and warrants granted as consideration for certain professional, consulting, legal and advertising services. Stock-based compensation for the three-month periods ended September 30, 2002 and September 30, 2001 was \$39,680 and \$153,848, respectively, a decrease of \$114,168 or 74.2%. The decrease was primarily the result of a decrease in the quantity of non-employee stock options and warrants granted or vesting during the three months ending September 30, 2002.

Period From Inception on July 1, 1998 through September 30, 2002

We are a development stage company. From inception of operations on July 1, 1998 through September 30, 2002, we had revenues of \$210,000, which consisted of the initial license fees in connection with our various development and license agreements.

We have incurred losses each year since inception and have an accumulated deficit of \$7,944,953 at September 30, 2002. We expect to continue to incur losses as a result of expenditures on research, product development and administrative activities.

We do not expect to generate significant revenues from product sales for approximately the next two to three years, during which time we will engage in significant research and development efforts. However, we have entered into the Harris Moran License, the ArborGen Agreement and the Cal/West License to develop and commercialize our technology in certain varieties of lettuce, melons, trees and alfalfa. These agreements provide that, upon the achievement of certain benchmarks, we will receive an aggregate of \$4,130,000 in development payments over a multi-year period. The Harris Moran License and the Cal/West License also provide for royalty payments to us upon commercial introduction. The ArborGen Agreement contains an option for ArborGen to execute a license to commercialize developed products, and upon the execution of a license agreement, we will receive a license fee and royalties from ArborGen. The Cal/West License contains an option for Cal/West to develop our technology in various other forage crops.

Consistent with our commercialization strategy, we intend to attract other companies interested in strategic partnerships or licensing our technology that may result in additional license fees, revenues from contract research and other related revenues. Successful future operations will depend on our ability to transform our research and development activities into commercializable technology.

ITEM 3. CONTROLS AND PROCEDURES.

Evaluation of disclosure controls and procedures

Based on their evaluation of our disclosure controls and procedures, as defined in Rules 13a-14(c) and 15d-14(c) under the Securities Exchange Act of 1934, as of a date within 90 days of the filing date of this Quarterly Report on Form 10-QSB, our President and Chief Executive Officer, considered our principal executive officer, and our Chief Financial Officer, considered our principal financial and accounting officer, have concluded that our disclosure controls and procedures are designed to ensure that information we are required to disclose in the reports we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and are operating in an effective manner.

Changes in internal controls

There were no significant changes in our internal controls or in other factors that could significantly affect these controls subsequent to the date of their most recent evaluation.

PART II. OTHER INFORMATION.

ITEM 2. CHANGES IN SECURITIES AND USE OF PROCEEDS.

Option Grants to Employees

On October 9, 2002, pursuant to our stock option plan, we granted options to purchase 12,500 shares of our common stock to an executive officer in exchange for services provided to us as an employee. Such options were granted at an exercise price equal to \$1.65 per share, with one-third of such options becoming exercisable on each of the first, second and third anniversaries from the date of grant.

Also, on October 9, 2002, pursuant to our stock option plan, we granted options to purchase 10,000 shares of our common stock to another executive officer in exchange for services provided to us as an employee. Such options were granted at an exercise price equal to \$1.65 per share, with one-third of such options becoming exercisable on each of the first, second and third anniversaries from the date of grant.

No underwriter was employed by us in connection with the issuance of the securities described above. We believe that the issuance of the foregoing securities was exempt from registration under Section 4(2) of the Securities Act of 1933, as amended, as transactions not involving a public offering. Each of the recipients acquired the securities for investment purposes only and not with a view to distribution and had adequate information about us.

ITEM 5. OTHER INFORMATION.

On October 14, 2002, our Board of Directors increased the size of the Board from six members to seven members. In conjunction with this increase, the Board appointed Philip B. Livingston to fill the newly created vacancy and to serve as a Director until our next annual meeting of stockholders, or until his successor is duly elected and qualified.

ITEM 6. EXHIBITS AND REPORTS ON FORM 8-K.

(a) Exhibits

- 10.1 * Development and License Agreement by and between Senesco and Cal/West Seeds, dated September 14, 2002.
- 10.2 * Collaboration Agreement by and between Senesco and Tilligen, Inc., dated September 20, 2002.
- 10.3 Consulting Agreement by and between Senesco and Alan B. Bennett, Ph.D., dated November 1, 2002.
- 99.1 Certifications of principal executive officer and principal financial and accounting officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. 1350.
- * Confidential Treatment has been requested for portions of this Exhibit.

(b) Reports on Form 8-K.

None.

SIGNATURES

In accordance with the requirements of the Securities Exchange Act of 1934, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

SENESCO TECHNOLOGIES, INC.

DATE: November 14, 2002

By: /s/ Bruce C. Galton

Bruce C. Galton, President
and Chief Executive Officer
(Principal Executive Officer)

DATE: November 14, 2002

By: /s/ Joel Brooks

Joel Brooks, Chief Financial Officer
and Treasurer
(Principal Financial and
Accounting Officer)

CERTIFICATION

I, Bruce C. Galton, certify that:

1. I have reviewed this quarterly report on Form 10-QSB of Senesco Technologies, Inc.;
2. Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this quarterly report;
3. Based on my knowledge, the financial statements, and other financial information included in this quarterly report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures, as defined in Exchange Act Rules 13a-14 and 15d-14, for the registrant and we have:
 - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;
 - b) evaluated the effectiveness of the registrant disclosure controls and procedures as of a date within 90 days prior to the filing date of this quarterly report; and
 - c) presented in this quarterly report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of a date within 90 days prior to the filing date of this quarterly report;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of the registrant's board of directors, or persons performing the equivalent function:
 - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this quarterly report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: November 14, 2002

/s/ Bruce C. Galton

Bruce C. Galton
President and Chief Executive Officer
(principal executive officer)

CERTIFICATION

I, Joel Brooks, certify that:

1. I have reviewed this quarterly report on Form 10-QSB of Senesco Technologies, Inc.;
2. Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this quarterly report;
3. Based on my knowledge, the financial statements, and other financial information included in this quarterly report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures, as defined in Exchange Act Rules 13a-14 and 15d-14, for the registrant and we have:
 - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;
 - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this quarterly report; and
 - c) presented in this quarterly report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of a date within 90 days prior to the filing date of this quarterly report;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of the registrant's board of directors, or persons performing the equivalent function:
 - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this quarterly report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: November 14, 2002

/s/ Joel Brooks

Joel Brooks
Chief Financial Officer and Treasurer
(principal financial and
accounting officer)

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. Asterisks denote such omissions.

DEVELOPMENT AND LICENSE AGREEMENT

This Development and License Agreement ("Agreement") dated as of 09-14-02 (the "Effective Date") is entered into by and between Senesco Technologies, Inc, a Delaware corporation with principal offices at 303 George Street, Suite 420, New Brunswick, NJ 08901 ("STI") and Cal/West Seeds, a California corporation with principal offices at 41970 E. Main Street, Woodland, CA 95776 ("Cal/West").

RECITALS

WHEREAS, STI owns and controls technology, know-how and United States and foreign patent applications concerning methods for controlling plant senescence involving altering the expression of plant genes and their cognate expressed proteins that are induced during or coincident with the onset of senescence;

WHEREAS, Cal/West is a company in the business of forage seeds, oilseeds, and dichondra with expertise in research and development, production, conditioning and shipping, and marketing that is global in scope;

WHEREAS, STI desires to provide Cal/West with access to STI Technology to enable STI and Cal/West to develop Licensed Products in the Field, and STI desires to grant to Cal/West a license under the STI Patents to commercialize Licensed Products in the Field; and

WHEREAS, Cal/West desires to have access to STI Technology in the Field and to acquire a license under the STI Patents to commercialize Licensed Products in the Field;

NOW THEREFORE, in consideration of the premises and the faithful performance of the mutual covenants hereinafter set forth, the parties hereto hereby agree as follows:

1. DEFINITIONS

As used in this Agreement, the following defined terms shall have the respective meanings set forth below:

1.1 "Field" means the plant species and types as set forth in Appendix A.

1.2 "Licensed Product" means any product developed pursuant to this Agreement within the Field, including the particular plant species and types listed in Appendix A.

1.3 "STI Patents" means (i) all pending (as of the Effective Date of this Agreement) U.S. and foreign patent applications owned or controlled by STI or its Affiliates pertaining to controlling senescence, including original applications, provisionals, divisions, continuations, continuations in part, extensions, PCT applications, renewals, reissues, or reexamination applications or supplemental prosecution certificates, including, but not limited to, all applications listed in Appendix B; (ii) all U.S. and foreign patents that have

issued or will issue from any application identified in Section (i) of this paragraph; and (iii) all U.S. and foreign applications that claim priority in any way from any application or patent identified in subparagraphs (i) or (ii) of this paragraph.

1.4 "STI Confidential Information" means any information disclosed by STI to Cal/West, including all business, technical and other information, whether disclosed in writing, orally or in any other form, tangible or intangible, including but not limited to: information concerning inventions (including patent applications and related documents), discoveries, techniques, processes, designs, biological materials, specifications, algorithms,

data, finances and plans, customer lists, business plans, contracts, marketing plans, production plans, distribution plans, system implementations plans, business concepts, supplier information, business procedures, business operations; all know-how and trade secrets; and all other unpublished copyrightable material. Confidential Information does not include information which:

(i) is known to Cal/West prior to the time of disclosure by the STI, as evidenced by contemporaneous dated written records;

(ii) is received by Cal/West from independent sources having the right to such information without an obligation of confidence or non-disclosure, and without the information having been solicited or obtained by any use of the Confidential Information;

(iii) STI gives written consent for disclosure to a third party; or

(iv) is subsequently and independently developed by Cal/West without use

of the Confidential Information and by persons who have not had access to the Confidential Information, as evidenced by contemporaneous dated written records.

- 1.5 "STI Technology" means the STI Patents, STI Confidential Information, and all STI know-how, materials, information and methods (whether developed by STI or acquired from a third party), including, but not limited to methods for controlling plant senescence involving altering the expression of plant genes and their cognate expressed proteins that are induced during or coincident with the onset of senescence.
- 1.6 "STI Development" means any improvement or development, whether or not patentable or protectable as a trade secret, relating to or deriving from the STI Technology, made by STI and/or Cal/West, pursuant to and during the term of this Agreement, including all patents and patent applications to be filed relating to any such improvements or developments.
- 1.7 "Territory" means worldwide.
- 1.8 "Timeline" means the product development timetable for STI and Cal/West development of technology relating to Licensed Products in the Field, as set forth in Appendix C.

2. LICENSE GRANT

- 2.1 STI grants Cal/West an exclusive license in the Field and in the Territory to make, have made, use, sell, and offer to sell Licensed Products within the scope of the STI Patents.
- 2.2 [**] in the Field and in the Territory to sell and offer to sell Licensed Products within the scope of the STI Patents. Cal/West shall not receive [**] under this Agreement without the express written consent of STI.
- 2.3 [**] in the Field [**] the terms and conditions of the Agreement [**] requires prior written consent of STI which will not unduly withhold such consent. [**] would be [**].
- 2.4 STI grants Cal/West an option until January 1, 2004, to add [**] to the Field defined in Appendix A. To exercise its option, Cal/West shall notify Senesco in writing prior to the expiration of the option period. Cal/West shall include with said notification an option fee of \$[**] payable to STI for each option exercised.
- 2.5 Cal/West grants STI a nonexclusive license in the Field to any Cal/West technology necessary for the development of Licensed Products under this Agreement.

3. TERM

This Agreement is effective as of the Effective Date, and shall continue until the last to expire of the STI Patents unless earlier terminated pursuant to Article 13, below or extended by mutual written agreement of the parties.

4. PRODUCT DEVELOPMENT

- 4.1 STI agrees to carry out its development obligations in each of the Phases as set forth in the Timeline attached hereto as Appendix C.
- 4.2 Cal/West agrees to carry out its development obligations in each of the Phases as set forth in the Timeline attached hereto as Appendix C.
- 4.3 STI agrees during the term of this agreement to provide Cal/West access to the STI Technology, pursuant to the terms set forth herein.

- 4.4 STI shall provide technical support to Cal/West, as necessary to enable Cal/West to meet its development obligations as set forth in the Timeline attached hereto as Appendix C. STI technical support shall be provided [**] Cal/West or STI [**]
- 4.5 Cal/West shall be responsible, and STI shall fully cooperate with Cal/West, to obtain any required state, federal, national, or international approval needed to carry out the terms of this Agreement.
5. PATENTS, PATENT APPLICATIONS AND PATENT ENFORCEMENT
- 5.1 Cal/West acknowledges that all the STI Technology is and shall remain the property of STI, and except as provided herein, all right, title and interest in the STI Technology is and shall remain with STI.
- 5.2 Cal/West and STI agree that all STI Developments are and shall remain the property of STI, and except as provided herein, all right, title and interest in the STI Developments is and shall remain with STI. Cal/West assigns all patentable inventions relating to any STI Development to STI and agrees to execute all documents, provide all information and materials (including any biological materials necessary for deposit) and do all acts, at STI's sole expense, necessary to perfect and maintain STI's rights to all patentable STI Developments.
- 5.3 STI shall retain the sole right to prosecute and maintain any and all patents and patent applications relating to STI Technology and STI Developments in its sole and absolute discretion.
- 5.4 STI shall have sole and absolute discretion over whether to bring any claims at their own expense for patent infringement under the STI Patents, shall have complete control of any such suits, claims or counterclaims it asserts, and shall retain [**] in such cases. In the event STI declines to enforce the STI Patents in the Field, and STI gives written consent to Cal/West, Cal/West may enforce the STI Patents in the Field against a Third Party. Should Cal/West bear [**], Cal/West will receive [**] Cal/West will [**]. Should the Parties agree to split the expenses of enforcing a claim, then any damages received will [**] and any amounts received over the expenses will be [**]

6. BENCHMARK PAYMENTS TO STI

6.1 Cal/West shall make the following payments to STI:

- (i) \$10,000 in U.S. dollars to STI upon execution of this Agreement;
- (ii) \$[**] in U.S. dollars at the end of [Phase I];
- (iii) \$[**] in U.S. dollars at the end of [Phase II]; and
- (iv) \$[**] in U.S. dollars at the end of [Phase III].

Benchmark payments listed in subparagraphs (ii), (iii), and (iv) above are associated with completion of each of the Phases as set forth in the Timeline attached hereto as Appendix C.

7. ROYALTIES

7.1 Upon commercialization by Cal/West or any of Cal/West's sublicensees of any Licensed Products within the Field, Cal/West shall make royalty payments to STI.

7.2 Cal/West agrees to pay to STI a royalty based on the following accumulative volume pricing schedule:

ACCUMULATIVE VOLUME (LBS)

From	To	Royalty/lb
[**]	[**]	\$[**]
[**]	[**]	\$[**]
[**]	[**]	\$[**]
[**]	[**]	\$[**]
[**]	[**]	\$[**]

The royalty is deemed earned as of [**]. The same accumulative volume pricing schedule will apply separately to sales made by [**].

7.3 Royalties shall be paid in U.S. dollars with one annual payment made on or before June 30th of each year for the previous years activities. All royalties owing in currencies other than U.S. dollars shall be converted at the rate shown in the Federal Reserve Noon Valuation -- value of Foreign currencies on the date preceding the payment.

7.4 Royalty payments shall be accompanied by a royalty report. A full accounting showing how any amounts owing to STI have been calculated shall be submitted to STI on the date of each such royalty payment. Such reporting shall be on a per-country basis with accounting on a Cal/West product ID (product line) basis and customers identified on an

alpha or numeric basis but not by company name. In the event no payment is owed to STI, a statement setting forth that fact shall be supplied to STI.

8. RECORDKEEPING

- 8.1 STI shall have a right to conduct an audit of Cal/West's books and records upon thirty (30) days notice.
- 8.2 Cal/West shall keep books and records sufficient to verify the accuracy and completeness of Cal/West's accounting referred to above, including without limitation inventory, purchase and invoice records relating to the Licensed Products or their manufacture. Such books and records shall be preserved for a period of not less than six years after they are created during and after the term of this Agreement.
- 8.3 Cal/West shall take all steps necessary so that STI may within thirty days of its request review and copy all books and records at Cal/West's registered office to verify the accuracy of Cal/West's accounting. Such review shall be performed by a mutually agreed upon independent auditor upon reasonable notice and during regular business hours. Such review shall be conducted at STI's expense.
- 8.4 If a royalty payment deficiency is determined, Cal/West shall pay the royalty deficiency outstanding within thirty (30) days of receiving written notice thereof, plus interest on outstanding amounts.
- 8.5 If a royalty payment deficiency for a calendar year exceeds [**] percent ([**]%) of the royalties paid for that year, then Cal/West shall be responsible for paying STI's out-of-pocket expense incurred with respect to such review.

9. NO COMPETE

Other than products under development prior to the effective date of this Agreement, Cal/West agrees not to develop or commercialize any product through recombinant DNA technology that modifies plant senescence and would compete with a Licensed Product in the Field of this Agreement. In exchange for this non-compete agreement, STI agrees to grant Cal/West first right of refusal for new technologies within the Field. Products developed subsequent to the Effective Date of this Agreement using conventional plant breeding techniques are excluded from this non-compete agreement with the following exception. Cal/West agrees not to use information and know-how gained under this agreement to use conventional plant breeding techniques to develop varieties with modified senescence, substantially equivalent to STI technology, that would circumvent our responsibilities under this agreement.

10. ASSIGNMENT

- 10.1 All rights granted under this Agreement are personal to Cal/West. Cal/West may not assign this Agreement or its rights or obligations hereunder.
- 10.2 This Agreement shall inure to the benefit of and be binding upon the parties hereto and their successors and permitted assigns.

11. CONFIDENTIALITY

- 11.1 Cal/West agrees that it will respect the STI Confidential Information and treat it in the same manner as if it were its own Confidential Information. STI Confidential Information shall not be disclosed by Cal/West to any third person or entity or to the public except as provided herein.
- 11.2 STI shall designate its Confidential Information, when disclosed in writing, by stating that such information is confidential. When disclosed orally or visually, STI party shall use its best efforts to orally state that such information is considered confidential at the time of the disclosure, and shall use its best efforts to reduce to writing a notice regarding said confidentiality within thirty (30) days of such disclosure.
- 11.3 Cal/West agrees to treat and hold as confidential and not disclose to or provide access to any third person or entity or to the public any and all Confidential Information received pursuant to this Agreement and will cause its respective agents, representatives and employees to do likewise.
- 11.4 Cal/West shall use the STI Confidential Information only for the uses as agreed upon in this Agreement and only in connection with the development of Licensed Products in the Field and any other purpose mutually agreeable to the parties.
- 11.5 Cal/West may disclose STI Confidential Information received, only to the extent it is required to do so pursuant to a final court order; provided, however, that Cal/West (i) promptly notifies STI upon its receipt of any pleading, discovery request, interrogatory, motion or other paper that requests or demands disclosure of the STI Confidential Information, (ii) opposes any request for disclosure, and that failing, seeks to have access and use limited by a protective order, and (iii) provides STI a reasonable opportunity to contest and assist in opposing any requirement of disclosure, to seek judicial protection against the disclosure and to have such disclosure as is required made under a protective secrecy order.
- 11.6 Cal/West agrees that, at any time upon the request of STI, Cal/West will return or destroy any materials containing STI Confidential Information (and destroy its notes and copies related thereto). If destroyed, Cal/West shall provide STI with written certification of destruction of the materials containing said STI Confidential Information, said certification to be signed by an officer of Cal/West.

- 11.7 Cal/West agrees that only those of its employees who need to know the STI Confidential Information will have access to same, and then only to the extent necessary to carry out their respective tasks. Cal/West agrees to be responsible for any use by its employees of the STI Confidential Information. Cal/West employees who will have access to STI Confidential Information have signed a confidentiality agreement as a condition of their employment, an example of which is shown in Appendix D as reference.
- 11.8 In the event Cal/West wishes to use a Third Party contractor or consultant and disclose to that contractor or consultant the STI Confidential Information, Cal/West shall, prior to disclosure, (i) secure written permission from STI (which shall not be unreasonably withheld) and (ii) secure from the Third Party a signed undertaking in which the Third Party agrees to be bound to the terms of the Confidentiality provisions of this Agreement in accordance with this Section 11 as if he or she were a party hereto.
- 11.9 STI and Cal/West each agree not to disclose the terms of this Agreement other than as required by law to any regulatory or judicial body, or as necessary to potential investors or financiers (provided such potential investors or financiers are subject to confidentiality undertakings) without the express prior written consent of the other party, which consent shall not be unreasonably withheld. The parties, however, shall be permitted to prepare press releases disclosing the existence of the Agreement in accordance with the provisions of Paragraph 11.10.
- 11.10 Prior to issuing any reports, statements, press releases, publications, or other disclosures to third parties regarding this Agreement or the transactions contemplated herein, STI and Cal/West shall exchange copies of said disclosure at least ten (10) days in advance in the case of press releases and at least sixty (60) days in advance in the case of any other disclosures, and the parties shall consult with each other regarding the content of said disclosure. Except as otherwise required by law, neither STI nor Cal/West shall issue any such disclosure without the prior written approval of the other. This paragraph does not apply to disclosures necessary for filing documents with the U.S. Securities and Exchange Commission.
12. REPRESENTATIONS AND WARRANTIES
- 12.1 STI represents to the best of its knowledge that it is legally entitled to disclose the STI Confidential Information disclosed by it, and that to the best of its knowledge the disclosure of the STI Confidential Information under this Agreement does in no event violate any right of any Third Party. No other warranties are made, whether express or implied, and STI expressly disclaims all other warranties concerning, including without limitation, merchantability, fitness for a particular purpose, and non-infringement.
- 12.2 STI warrants that it is the owner of the STI Patents set forth in Appendix B or otherwise has the rights to grant the licenses granted to Cal/West in this Agreement.

13. DEFAULT AND TERMINATION

- 13.1 STI may terminate this Agreement upon sixty (60) days notice if Cal/West fails to materially fulfill or perform any one or more of its duties, obligations, or responsibilities pursuant to this Agreement and does not cure said failure within [**] days after receiving notice of said failure
- 13.2 Either party may terminate this agreement if the other party declares or petitions for bankruptcy, is the subject of a bankruptcy petition filed against it, makes an assignment for the benefit of creditors or seeks similar relief under state law, or becomes insolvent.
- 13.3 Cal/West may terminate this Agreement at any time by giving at least ninety (90) days written and unambiguous notice of such determination to STI.
- 13.4 Upon termination of this Agreement pursuant to this Section 13, (i) Cal/West shall cease to be licensed under the STI Patents; (ii) all moneys owed by Cal/West to STI shall become immediately due and payable; (iii) all STI Confidential Information exchanged pursuant to this Agreement shall be returned immediately to STI; (iv) neither party to this Agreement shall be responsible to the other for any damages arising from the termination of this Agreement, including any claim for lost or anticipated profits, expenditures, reliance, or other damages.
- 13.5 In the event that this Agreement is terminated by Cal/West, Cal/West shall pay to STI [**]% of next payment due during the development process, if any, under Section 6 of this Agreement and shall pay royalties earned up to the date of termination. In the event this Agreement is terminated, Cal/West, its customers, and its sublicensees shall have the right to sell existing inventories of Licensed Products until depleted with royalties due and payable according to Paragraph 7 of this Agreement.

14. PATENT MARKING

Cal/West shall insure that it and its sublicensee(s) apply patent markings that meet all requirements of U.S. law, 35 U.S.C. 287, with respect to all Licensed Products subject to this Agreement.

15. PRODUCT LIABILITY; CONDUCT OF BUSINESS

Cal/West shall, at all times during the term of this Agreement and thereafter, indemnify, defend and hold STI and the inventors of the STI Patents harmless against all claims and expenses, including legal expenses and reasonable attorneys fees, arising out of the death of or injury to any person or persons or out of any damage to property and against any other claim, proceeding, demand, expense and liability of any kind (other than patent

infringement claims and claims resulting from STI's own negligence or the negligence of the inventors of the Licensed patents) resulting from the production, manufacture, sale, use, lease, consumption or advertisement of Licensed Products arising from any right or obligation of Cal/West or any sublicensee hereunder. STI at all times reserves the right to select and retain counsel of its own to defend STI's interests.

16. USE OF NAMES

Cal/West and its sublicensee(s) shall not use STI's name, the name of any inventor of inventions governed by this Agreement in sales promotion, advertising, or any other form of publicity without the prior written approval of the entity or person whose name is being used.

17. CHOICE OF LAW; CHOICE OF FORUM

This Agreement shall be construed and interpreted in accordance with the laws of the State of New York without reference to its choice of law principles. The state and federal courts in Southern District of New York shall have exclusive jurisdiction of any dispute arising under this Agreement.

18. ENTIRE AGREEMENT; NO ORAL MODIFICATIONS; WAIVER

18.1 This Agreement contains the entire understanding and agreement between STI and Cal/West with respect to the subject matter hereof, and supersedes all prior oral or written understandings and agreements relating thereto. Neither party shall be bound by any conditions, definitions, warranties, understandings, or representations concerning the subject matter hereof except as are (i) provided in this Agreement, (ii) contained in any prior existing written agreement between the parties, or (iii) duly set forth on or after the Effective Date of this Agreement in a written instrument subscribed by an authorized representative of the party to be bound thereby.

18.2 No waiver by either party, whether express or implied, of any provision of this Agreement, or of any breach or default thereof, shall constitute a continuing waiver of such provision or of any other provision of this Agreement. Either party's acceptance of payments by the other under this Agreement shall not be deemed a waiver of any violation of or default under any of the provisions of this Agreement.

19. RELATIONSHIP OF THE PARTIES

Nothing herein contained shall be construed to constitute the parties hereto as partners or as joint venturers, or either as agent or employee of the other. Neither party shall take any action that purports to bind the other.

20. SEVERABILITY

If any provision or any portion of any provision of this Agreement shall be held to be void or unenforceable, the remaining provisions of this Agreement and the remaining portion of any provision held void or unenforceable in part shall continue in full force and effect.

21. CONSTRUCTION

This Agreement shall be construed without regard to any presumption or other rule requiring construction against the party causing this Agreement to be drafted. If any words or phrases in this Agreement shall have been stricken out or otherwise eliminated, whether or not any other words or phrases have been added, this Agreement shall be construed as if those words or phrases were never included in this Agreement, and no implication or inference shall be drawn from the fact that the words or phrases were so stricken out or otherwise eliminated.

22. HEADINGS

The captions and paragraph headings appearing in this Agreement are inserted for convenience and reference only and in no way define, limit or describe the scope or intent of this Agreement or any of the provisions thereof.

23. NOTICES

All reports, approvals, requests, demands and notices required or permitted by this Agreement to be given to a party (hereafter "Notices") shall be in writing. Notices shall be hand delivered, sent by certified or registered mail, return receipt requested, or sent via a reputable private express service which requires the addressee to acknowledge receipt thereof. Notices may also be transmitted by fax, provided that a confirmation copy is also sent by one of the above methods. Except as otherwise provided in this Agreement, Notices shall be effective upon dispatch. Notices shall be sent to the party concerned as follows (or at such other address as a party may specify by notice to the other):

As to STI:

Senesco Technologies, Inc.
303 George Street, Suite 420
New Brunswick, NJ 08901
Facsimile: (732) 296-9292
Attn: Sascha Fedyszyn, Vice President Corporate Development

As to Cal/West:

Cal/West Seeds
P. O. Box 1428
Woodland, CA 95776-1428
Facsimile: (530) 666-0064
Attn: Jonathan M. Reich, Executive Vice President

24. SURVIVAL OF TERMS

The obligations set forth in Sections 7, 8, 11, 13, and 15 shall survive the termination of this Agreement.

25. APPENDICES

All Appendices referenced herein are hereby made a part of this Agreement.

IN WITNESS WHEREOF, each of the parties has caused this Agreement to be executed by its duly authorized representative as of the day and year first above written.

SENECO TECHNOLOGIES, INC.

CAL/WEST SEEDS

By: /s/ Sascha P. Fedyszyn

By: /s/ Jonathan M. Reich

Title: Vice President, Corporate Development

Title: Executive Vice President

APPENDIX A
FIELD OF LICENSE

The Field of this License is alfalfa, Medicago species.

APPENDIX B

STI PATENTS

Lipase Applications:

[**]
Title: "DNA Encoding a Plant Lipase, Transgenic Plants and a Method for
Controlling Senescence in Plants"
Filed: February 14, 2000
[**]
[**]

[**]
Title: "DNA Encoding a Plant Lipase, Transgenic Plants and a Method for
Controlling Senescence in Plants"
Filed: July 5, 2000
[**]

[**]
Title: "DNA Encoding a Plant Lipase, Transgenic Plants and a Method for
Controlling Senescence in Plants"
Filed: June 19, 2001
[**]
[**]

DHS Applications:

[**]
Title: "DNA Encoding a Plant Deoxyhypusine Synthase, a Plant Eukaryotic
Initiation Factor-5A, Transgenic Plants and a Method for Controlling
Senescence Programmed Cell Death in Plants"
Filed: June 19, 2000
[**]

[**]
Title: "DNA Encoding a Plant Deoxyhypusine Synthase, a Plant Eukaryotic
Initiation Factor-5A, Transgenic Plants and a Method for Controlling
Senescence Programmed Cell Death in Plants"
Filed: July 6, 2000
[**]
[**]

[**]
Title: "DNA Encoding a Plant Deoxyhypusine Synthase, a Plant Eukaryotic
Initiation Factor-5A Transgenic Plants and a Method for Controlling
Senescence Programmed Cell Death in Plants"
Filed: November 29, 2000
[**]

[**]
Title: "DNA Encoding a Plant Deoxyhypusine Synthase, a Plant Eukaryotic
Initiation Factor-5A, Transgenic Plants and a Method for Controlling
Senescence Programmed Cell Death in Plants"
Filed: November 29, 2001
[**]

APPENDIX C

TIMELINE

PHASE I - DEFINED AS [**]

Transgenic plant(s) must be obtained using a [**], with subsequent verification that the event resulted from a [**], and that there are no [**] in the transgenic plant(s).

Duration of Phase I is expected to be from [**] to [**] following the Effective Date of this Agreement. Cal/West responsibilities will be for [**]. STI responsibility will be to provide technical expertise and know-how in the areas of [**].

PHASE II - DEFINED AS [**]

This phase includes [**]. It also includes [**].

Duration of Phase II is expected to be from [**] to [**] following completion of Phase I of this Agreement. Cal/West responsibilities will be for [**]. STI responsibility will be to provide technical expertise and know-how [**].

PHASE III - DEFINED AS [**].

This phase results in [**]. (We do not anticipate requirement to [**])

Duration of Phase III is expected to be from [**] to [**] following completion of Phase II of this Agreement. Cal/West responsibilities will be for [**]. STI responsibility will be to provide technical expertise and know-how [**].

APPENDIX D

CONFIDENTIALITY AGREEMENT

1. The Parties acknowledge and agree that during the term of this Agreement and in the course of the discharge of (his/her) duties hereunder, employee shall have access to and become acquainted with information concerning the operation of employer, including but not limited to plant breeding and research, data processing, sales, seed conditioning, seed analysis, operational techniques and production techniques, (without limitation, financial, personnel, sales, planning), and other information that is owned by the employer and regularly used in the operation of employer's business, and that this information constitutes employer's Trade Secrets.
2. Employee agrees that (he/she) shall not disclose any Trade Secrets, directly or indirectly, to any other person or use them in any way, either during the term of this Agreement or at any time thereafter, except as is required in the course of (his/her) employment with employer.
3. Employee further agrees that all breeding materials, files, records, documents, equipment, and similar items relating to employer's business, whether prepared by employee or others, are and shall remain exclusively the property of employer and that they shall be removed from the premises of employer only with the express prior consent of employer's senior management.
4. Employee will not, without employer's prior consent, either during (his/her) employment by employer or for [**] after termination of that employment, directly or indirectly disclose to any third person any such confidential information or trade secrets.

Cal/West Seeds Employee Signature

Witness Signature

Date

Date

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. Asterisks denote omissions.

Collaboration Agreement

between

Tilligen, Inc.

and

Senesco Technologies, Inc.

September 20, 2002

THIS IS AN AGREEMENT effective September 20, 2002, ("Effective Date") by and between Tilligen, Inc., a Washington corporation having its principal place of business at 1000 Seneca Street, Seattle, WA 98101 ("Tilligen") and Senesco Technologies, Inc. ("Senesco"), a Delaware corporation having a principal place of business at 303 George Street, Suite 420, New Brunswick, NJ 08901.

Senesco has certain technologies related to controlling plant senescence by altering the expression of plant genes and their cognate expressed proteins that are induced during or coincident with the onset of senescence.

Tilligen has certain technologies relating to the generation and identification of mutations in genes predictive of traits of interest.

Senesco and Tilligen are establishing a research alliance to develop and commercialize certain improved varieties of [**] containing desirable Mutations (hereinafter defined).

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth, the parties agree as follows:

1. DEFINITIONS

Terms in this Agreement defined in the singular have the same meanings when used in the plural and vice versa. For purposes of this Agreement, the following words and phrases shall have the following meanings:

1.1 "Affiliate" means with respect to any person or entity, any other person or entity that directly or indirectly controls, is controlled by or is under common control with such person or entity. A person or entity shall be deemed to be "controlled" by any other person or entity if such other person or entity (i) possesses, directly or indirectly, power to direct or cause the direction of the management and policies of such person or entity whether by contract or otherwise, (ii) has direct or indirect ownership of at least 50% (in the aggregate) of the voting power of all outstanding shares entitled to vote at a general election of directors of the person or entity or (iii) has direct or indirect ownership of at least 50% of the equity interests in a partnership or a limited liability company.

1.2 "Agreement" means this Collaboration Agreement.

1.3 "Contract Party" means a distributor, processor, packer or similar party having a contractual relationship with Senesco ([**] in association with its relationship with Senesco) pursuant to which Senesco ([**] in association with its relationship with Senesco) permits such party to make, use, market, distribute, import, sell or offer for sale any Licensed Product.

1.4 "Field" means [**] varieties of [**].

1.5 "Gene Target" means a gene chosen by the Collaboration Managers to be analyzed by Tilligen for Mutations as provided for in the Research Plan.

1.6 "Intellectual Property" means all patents and patent applications owned or controlled by a party or any of its Affiliates or under which a party has a right to practice with the right to extend such right to practice, which contain claims, the rights to which are necessary or useful for the development, propagation, manufacture, use, sale or distribution of Licensed Products. Intellectual Property will also include all inventions, discoveries, know-how, trade secrets, information, experience, technical data, formulas, procedures or results relating to the Licensed Products and which are necessary for purposes of performing the Research Plan (including, without limitation, physical, chemical, biological, toxicological, and pharmacological data, product forms and formulations, and know-how relating to methods, processes or techniques for the development, propagation, manufacture, use, sale or distribution of Licensed Products or related products or materials), which are held by a party or its Affiliates with right to license or sublicense during the term of this Agreement, and which Intellectual Property is useful or necessary for the development, propagation, manufacture, use, sale or distribution of Licensed Products or for performing the Research Plan. Without limiting the foregoing, a party's Intellectual Property will include the Tilligen Patents or Senesco Patents, as the case may be.

1.7 "Joint Patents" is as defined in Section 6.1.

1.8 "Licensed Products" means germplasm and plants and plant products in the Field consisting of, containing, or derived from a Mutation.

1.9 "Mutation" means a mutation of a Gene Target discovered or developed by Tilligen in connection with the Research Plan.

1.10 "Net Revenues" means (a) the gross amount invoiced by Senesco [**] respective Affiliates and sublicensees for the sale or other disposition of Licensed Products to persons who are not Contract Parties, plus (b) the gross amount invoiced by Contract Parties and their Affiliates for the sale or other disposition of Licensed Products, in each case during the applicable period in arm's length transactions after deduction of the following items, provided and to the extent such items are actually incurred and do not exceed reasonable and customary amounts in each market in which such sales occurred: (i) trade and quantity discounts and rebates; (ii) credits or allowances made for rejection or return of previously sold Licensed Products; and (iii) any tax or government charge levied on the sale, such as value added tax (but not including income tax). In the event that the Licensed Product is sold or otherwise transferred to an Affiliate or a third party for a price lower than if it had been sold to a third party in an arm's length transaction ("fair market value"), then Net Revenues shall be the fair market value of the Licensed Products to an end-user of the Licensed Product.

1.11 "Project Committee" is as defined in Section 3.4.

1.12 "Project Technology" means any materials, know-how, information, discoveries or inventions that are discovered or developed in the course of carrying out the Research Plan.

1.13 "Research Plan" means the plan attached as Appendix A, as amended from time to time by the Project Committee pursuant to Section 3.3.

1.14 "Senesco Patents" is as defined in Section 7.1.

1.15 "Term" is as defined in Section 4.1

1.16 "Tilligen Patents" is as defined in Section 7.1.

2. CONVEYANCE OF RIGHTS.

2.1 License to Senesco. Subject to the terms and conditions of this

Agreement, Tilligen hereby grants to Senesco an exclusive, worldwide, nontransferable royalty-bearing license under the Tilligen Intellectual Property to make, use, sell, have sold and offer for sale Licensed Products in the Field. This license shall be exclusive as to the Field, in that Tilligen will not use the Tilligen Intellectual Property to develop or commercialize any products for use in the Field, and will not grant any license to any third party to develop or commercialize products for use in the Field. The foregoing license does not, however, prohibit Tilligen from using the Tilligen Intellectual Property for its own internal research and development purposes or to develop and commercialize products outside the Field.

2.2 License to Tilligen. Subject to the terms and conditions of this

Agreement, Senesco hereby grants to Tilligen a non-exclusive, fully-paid, royalty-free, license in the Field to use the Senesco Intellectual Property in the United States and Canada during the Term for internal purposes only as necessary for and in connection with Tilligen's performance under this Agreement and the Research Plan. The term of this license under the Senesco Intellectual Property ends at the conclusion of Tilligen's completion of its obligations under the Research Agreement, unless earlier terminated pursuant to Section 4.

2.3 Restrictions on Licenses. Nothing in this Agreement shall be construed

as granting a license under any intellectual property or other rights other than intellectual property or other rights identified in this Agreement, and in no event shall anything in this Agreement be construed as granting a license under any intellectual property or other right which any such party is, as of the Effective Date or during the Term of this Agreement, prohibited, contractually or otherwise, from granting.

2.4 Sublicense Rights. Senesco may sublicense its rights under Section 2.1

only with the prior written consent of Tilligen, which consent will not be unreasonably withheld or delayed. Notwithstanding any such consent, any such sublicense shall be consistent with all of the terms and conditions of this Agreement, and subordinate thereto. Senesco shall remain responsible to Tilligen for all obligations arising under this

Agreement based on the development, sales, distribution and other activities of each such sublicensee.

3. RESEARCH PLAN.

3.1 Research Plan. Subject to the terms and conditions set forth herein,

each of Senesco and Tilligen shall conduct the collaboration pursuant to the Research Plan, as attached hereto or as amended by the Project Committee, and in compliance with this Agreement.

3.2 General Contribution of the Parties. Senesco and Tilligen shall use

diligent efforts to conduct their respective obligations under the Research Plan.

3.3 Project Committee. The Research Plan will be managed by a Project

Committee of four, consisting of one (1) Executive Sponsor and one (1) Collaboration Manager from each party. The Project Committee will coordinate and expedite the design, development, and implementation of activities that are necessary to fulfill the purposes of the collaboration, including the evaluation and selection of Gene Targets. Each party may, in its sole discretion, replace the assigned individuals at any time as necessary, by providing written notice to the other party of such change.

3.3.1 Executive Sponsors. The initial Executive Sponsors shall be

Sascha Fedyszyn of Senesco and Vic Knauf of Tilligen. The Executive Sponsors shall have the following specific responsibilities:

(a) approving the Research Plan and any amendments or changes thereto;

(b) settling disputes or disagreements that cannot be resolved by the Collaboration Managers; and

(c) performing such other functions as appropriate to further the purposes of the collaboration as agreed by the parties.

3.3.2 Collaboration Managers. The initial Collaboration Managers

shall be John Thompson of Senesco and Susan Hurst of Tilligen. The Collaboration Managers shall have general responsibility for preparation of the Research Plan and the design, development, and implementation of activities that will fulfill the objectives of the collaboration as expeditiously as practicable. The Collaboration Managers shall also have the following specific responsibilities:

(a) updating and revising the Research Plan quarterly or as mutually agreed;

(b) monitoring and reviewing the progress of research, development, and implementation of collaboration activities in order to ensure that satisfactory progress is being made with respect to the execution of the Research Plan;

(c) discussing and agreeing upon remedial measures if a Collaboration Manager determines that the progress in respect of implementation of a Research Plan activity is unsatisfactory;

(d) settling disputes or disagreements related to the Research Plan; and

(e) performing such other functions as appropriate to further the purposes of the collaboration as agreed by the parties.

3.3.3 Decision-making. Decisions of the Collaboration Managers shall

be made by unanimous vote, with each of Tilligen and Senesco having one vote. If the Collaboration Managers become deadlocked on an issue, the issue shall be presented to the Executive Sponsors for resolution. Other than the Research Plan, the Project Committee may not modify this Agreement. Any decisions related to material changes in the scope or the budget for the Research Plan or related to changing the terms of this Agreement will require mutual consent of Tilligen and Senesco.

3.3.4 Meetings. The Project Committee shall meet no less frequently

than quarterly, as agreed upon by the Project Committee, but preferably at a location that alternates between Tilligen's corporate headquarters and Senesco's corporate headquarters. Responsibility for keeping the minutes of these meetings shall alternate between the parties. The Project Committee will prepare quarterly science reports and the minutes of the meetings will be approved by both parties. In the event that Tilligen and Senesco become deadlocked on an issue concerning this Agreement, this Agreement shall terminate as set forth in Section 4.3.

4. TERMINATION

4.1 Term. This Agreement will begin on the Effective Date and, except as

set for in Section 2.2, will expire concurrently with the last to expire of any patent contained in the Tilligen Intellectual Property or the Joint Intellectual Property, unless earlier terminated as provided for herein (the "Term").

4.2 Termination For Failure to Meet a Material Term of the Research Plan.

Subject to the provisions of Section 4.6, each of Senesco and Tilligen will have the option to terminate this Agreement prior to the expiration of the Term if the other party fails to meet any material term of the Research Plan. The defaulting party will be given sixty (60) days from receipt of such written notice to initiate cure of the failure pursuant to this Section 4.2 prior to actual termination. If the defaulting party is making a good faith effort to cure during such sixty (60) day period, then the party will be given an additional sixty (60) days to complete the cure, for a total period of one hundred twenty (120) days. If the default is cured during such period, the notice will have no force or effect.

4.3 Termination due to Deadlock. Subject to the provisions of Section 4.6,

this Agreement shall terminate if the parties become deadlocked concerning a material term of the Research Plan.

4.4 Early Termination - Other Reasons. Subject to the provisions of

Section 4.6, either party, at its option and without prejudice to any of its other legal and equitable rights and remedies, may terminate this Agreement by reason of failure to cure a material breach by the other party, other than a breach provided in Section 4.2, or upon bankruptcy, insolvency, and dissolution or winding up of the other party. Any such termination will require written notice from the terminating party, specifying, in reasonable detail, the breach or other basis of the termination. If capable of being cured, the breaching party will be given thirty (30) days from receipt of such written notice to cure the breach pursuant to this Section 4.4 prior to actual termination. If the breach is cured during such period, the notice will have no force or effect.

4.5 Surviving Paragraphs. Termination of this Agreement for any reason

shall not terminate the provisions set forth in Sections 4.6, 6, 8, 9.3, 9.4, 9.5, 9.6, 10, 11.1 and 11.3. The rights and obligations of these Sections shall continue in full force and effect following any such termination.

4.6 Actions on Termination.

4.6.1 Return of Information and Things. Upon any termination of this

Agreement, Tilligen agrees to return or permanently destroy, at Senesco's sole discretion, all Senesco Confidential Information in Tilligen's possession. Senesco agrees to return or permanently destroy, at Tilligen's sole discretion, all Tilligen Confidential Information in Senesco's possession. If biological or other material that comprises Joint Intellectual Property of Senesco and Tilligen exists upon any termination of this Agreement, the parties will attempt to negotiate a reasonable agreement as to how to dispose of such material.

4.6.2 Termination of License under Senesco Intellectual Property.

Upon termination of this Agreement for any reason, Tilligen's license under the Senesco Intellectual Property pursuant to Section 2.2 is terminated.

4.6.3 Termination of License under Tilligen Intellectual Property and

Continuation of License Rights Vested. Upon termination if this Agreement

pursuant to Sections 4.2, 4.3, or 4.4 (other than a termination resulting from a payment or similar default by Senesco, or a termination resulting from a bankruptcy, insolvency, dissolution or winding up of Senesco), Senesco's license under the Tilligen Intellectual Property granted in Section 2.1 will continue, at Senesco's option, as to any and all Licensed Products for which a Gene Mutation fee has been paid by Senesco to Tilligen pursuant to Section 5.1.2. As to those Licensed Products for which a Gene Mutation fee has been paid, Senesco will continue to be obligated to make the royalty and other payments to Tilligen pursuant to Section 5 and the applicable provisions of this Agreement will remain in full force and effect as to those Licensed Products Upon termination pursuant to Sections 4.2, 4.3, and 4.4, Senesco's license under the Tilligen Intellectual Property as to all other products in the Field is terminated.

5. PAYMENTS.

5.1 Project Funding. Senesco agrees to fund the Research Plan as set forth

below. All payments set forth in this Section 4 shall be made in United States dollars.

5.1.1 Initial Fee. Senesco agrees to pay Tilligen [**] dollars

(\$[**]) on or within five (5) days of the Effective Date. Except as otherwise provided in this Section, the full amount of this initial fee shall be guaranteed, non-refundable and non-creditable and shall be paid directly to Tilligen.

5.1.2 Gene Mutation Fee. Upon delivery to Senesco of seeds containing

a Mutation (and the DNA sequence information with respect thereto) for each Gene Target identified pursuant to the Research Plan, Senesco shall pay Tilligen a fee of [**] dollars (\$[**]). Each such payment will be made within five (5) days of delivery of such seeds.

5.2 Royalties and Other Payments - Licensed Products.

5.2.1 Royalty Calculation. Senesco shall pay, and in the case of

Contract Parties cause to be paid, to Tilligen [**] percent ([**]%) of the total aggregate worldwide Net Revenue of all Licensed Products (for each Mutation utilized therein) notwithstanding that the sale or other disposition of such Licensed Products occurs in a jurisdiction in which Licensed Products are not covered by a valid and enforceable Tilligen Patent or Joint Patent or the corresponding pending patent applications

5.2.2 Sublicense of Tilligen Intellectual Property by Senesco. If

Senesco grants a sublicense of Tilligen Intellectual Property to a third party non-Affiliate without providing such sublicensee with a Licensed Product, Senesco shall pay Tilligen [**] percent ([**]%) of any royalty-based payments (or similar payments based upon per-unit sales of the Licensed Product) received for or as a result of such sublicense by Senesco.

5.2.3 Non-Royalty Payments. In situations where the sublicensee does

not pay a royalty, Senesco shall pay to Tilligen an amount equal to [**] percent ([**]%) of all non-royalty income (including, without limitation, license fees, license maintenance fees and milestone payments, but not including equity consideration or reimbursements for actual research and development costs incurred by Senesco) received by Senesco from any sublicensees to the Tilligen Intellectual Property ("Non-Royalty Payments"). Such Non-Royalty Payments shall be paid on a calendar quarterly basis along with the payment of the foregoing royalties, within thirty (30) days of the close of the calendar quarter in which such Non-Royalty Payment was received.

5.2.4 Duration of Royalty Obligations. The royalty obligations of

Senesco under Sections 5.2.1 and 5.2.2 as to each Licensed Product shall terminate on a country-by-country basis concurrently with the expiration of the last to expire of any patents contained in the Tilligen Intellectual Property enforceable in each such country. For any country in which no patent issues related to the Tilligen Intellectual Property, the

royalty obligations for such country shall terminate concurrently with the expiration of the last to expire of any patents contained in the Tilligen Intellectual Property.

5.2.5 License Maintenance Payments. In addition to the royalty and

other payments set forth in this Section 5.2, Senesco will pay to Tilligen an annual license maintenance fee ("License Maintenance Fee") of [**] dollars (\$[**]). The first such License Maintenance Fee shall be due twelve (12) months following delivery by Tilligen of the first Mutation delivered to Senesco hereunder, and on each subsequent anniversary thereof. The License Maintenance Fee shall be creditable on a noncumulative annual basis against any royalties owed to Tilligen hereunder.

6. RECORDS.

6.1 Payments of Royalties. Within thirty (30) days of the end of the

applicable quarterly period (calendar) following the first commercial sale of a Licensed Product and within thirty (30) days after the end of each quarterly period thereafter, Senesco shall make a written report to Tilligen setting forth the information, including that of Affiliates and sublicensees and Contract Parties, necessary to permit Tilligen to calculate and confirm the royalty and other payments due Tilligen, even if no payment is due. At the time each report is made, Senesco shall pay or cause to be paid to Tilligen, or any Affiliate of Tilligen as Tilligen may direct, the amounts shown by such report to be payable hereunder. Payments due on sales in foreign currency shall be calculated in United States dollars on the basis of the rate of exchange in effect for purchase of dollars at Chase Manhattan Bank, New York, New York, on the last business day of the last-preceding June or December, whichever shall be later. Payments shall be without set off (except with respect the License Maintenance Fee) and free and clear of any taxes, duties, fees or charges other than withholding taxes, if any. Payment shall be made by wire transfer to an account in the United States designated by Tilligen from time to time with prior written notice.

6.2 Books and Records for Royalty and Non-Royalty Payments. Senesco shall

keep, and shall cause its Affiliates, sublicensees, and all Contract Parties to keep, books and records in such reasonable detail as will permit the reports provided for in this Section to be made and the royalties payable hereunder to be determined. Senesco further agrees to permit its and its Affiliates' books and records to be inspected and audited from time to time (but not more often than once annually) during reasonable business hours by an independent auditor, designated by Tilligen and approved by Senesco, which approval will not be unreasonably withheld, to the extent necessary to verify the reports provided for in this Section; provided, however, that such auditor shall indicate to Tilligen only whether the reports and royalties paid are correct, and if not, the reason why not. Senesco also agrees to cause all Contract Parties (pursuant to the agreement under which they become Contract Parties of Senesco) to permit their respective books and records to be inspected and audited from time to time (but not more often than once annually) during reasonable business hours by an independent auditor, designated by Tilligen and approved by them, which approval will not be unreasonably withheld, to the extent necessary to verify the reports required to be provided by Senesco in this Section; provided, however, that such auditor shall indicate to Tilligen only

whether the amounts reported by Senesco are correct, and if not, the reason why not. In the event that such an audit results in additional royalties being owed to Tilligen, such royalties shall be paid within twenty (20) days from notice of deficiency along with interest calculated as from the date the correct payment was due to the date of actual payment at an annual rate of five (5) percentage points above the prime rate quoted by Chase Manhattan Bank, New York, New York, on the day payment was due, or at the greatest rate permitted by law, if lower, until paid. If the original royalty payment was more than ten percent (10%) less than it should have been, the cost of the audit shall be reimbursed by Senesco.

6.3 Late Payment. If any royalties or other amounts owed under this

Agreement are not paid when due, the unpaid amount shall bear interest, compounded annually, at an annual rate of five (5) percentage points above the prime rate quoted by Chase Manhattan Bank of New York on the day payment was due or at the greatest rate permitted by law, if lower, until paid or offset.

7. INTELLECTUAL PROPERTY.

7.1 Ownership of Intellectual Property. Except as set forth in this

Agreement: (i) any Project Technology and any patent applications and patents claiming any Project Technology within or outside the Field first developed or made by one or more employees of Senesco shall belong to Senesco ("Senesco Patents"); (ii) any Project Technology and any patent applications and patents claiming any Project Technology within or outside the Field first developed or made by one or more employees of Tilligen shall belong to Tilligen ("Tilligen Patents"); and (iii) any Project Technology and any patent applications and patents claiming any Project Technology first developed or made jointly by one or more employees of Senesco and one or more employees of Tilligen within or outside the Field shall belong jointly to Senesco and Tilligen ("Joint Patents"). Inventorship shall be determined in accordance with United States patent laws.

7.2 Disclosure of Patentable Inventions. In addition to the disclosures

otherwise required under this Agreement, each party shall submit a written report to the other within forty-five (45) days of the end of each calendar quarter summarizing any inventions arising in the performance of the Research Plan during the quarterly period immediately preceding delivery of such report which it believes may be patentable.

7.3 Patent Prosecution and Maintenance.

(a) Tilligen Patents. Subject to Section 7.5, Tilligen shall control

the prosecution and maintenance of the Tilligen Patents in its sole discretion. If Tilligen intends to or does abandon any patent application without filing a continuation of the same, or fails to maintain any issued patent in the Tilligen Patents, in each case that claims a Licensed Product, Tilligen shall provide Senesco notice thereof not less than two (2) months before any relevant deadline, and thereafter Senesco shall have the right, but not the obligation, to prosecute such patent at Senesco's expense and Tilligen agrees to cooperate fully with Senesco in such prosecution, including by providing all appropriate technical data, all appropriate files, and executing all necessary legal documents.

(b) Joint Patents. The parties shall agree upon an outside law firm

who shall prepare, file, prosecute and maintain Joint Patents under the joint instructions of the parties. All costs shall be shared equally. In the event Tilligen or Senesco elects not to share or continue to share such costs of prosecution of a filed application for a Joint Patent or maintenance costs for an issued Joint Patent, it shall notify the other party not less than two (2) months before any relevant deadline, and the other party shall have the right, but not the obligation, to assume sole control over the prosecution of such filed application for a Joint Patent or maintenance of such issued Joint Patent. In such event, the party which assumes such control shall have title to such Joint Patent and the other party agrees to execute the appropriate documents to assign all of its right, title and interest in such patent to the other party.

(c) Senesco Patents. Senesco shall control the prosecution and

maintenance of the Senesco Patents in its sole discretion.

7.4 Cooperation. Each party agrees to cooperate with the other in

preparing and executing any documents necessary or useful to obtain patent protection on any invention that is subject to this Agreement in any country in the world.

7.5 Costs. Subject to Section 6.3(a), Tilligen shall retain control over

and bear all expenses associated with the filing, prosecution and maintenance of the Tilligen Patents and patents included in the Tilligen Intellectual Property, except to the extent that such expenses relate to the prosecution and maintenance of Tilligen Intellectual Property outside the United States undertaken at the request of Senesco, in which event all such expenses will be paid or reimbursed by Senesco, provided, however, in the event that Senesco intends to or does abandon any such patent application without filing a continuation of the same, or fails to maintain any such issued patent in the Tilligen Patents, Senesco shall provide Tilligen notice thereof not less than two (2) months before any relevant deadline, and thereafter none of Senesco, its Affiliates, sublicensees, or any Contract Party shall have any rights to develop, propagate, manufacture, use, sell, have sold, offer for sale or distribute in such jurisdiction any Licensed Product. Senesco shall retain control over and bear all expenses associated with the filing, prosecution and maintenance of the Senesco Patents and patents included in the Senesco Intellectual Property.

7.6 Patent Litigation: Right to Bring Suit. Each party shall have the

power to institute and prosecute at its sole discretion and expense suits for infringement of their respective patent rights. Each party agrees to cooperate with the other in any suit brought under this Section. All expenses in such suits will be borne entirely by the party bringing such suit and such party shall collect all judgments or awards arising from these suits.

7.7 Patent Litigation: Jointly Owned Patents. In the event that any Joint

Patent is infringed or misappropriated by a third party, Senesco and Tilligen shall discuss whether, and, if so, how, to enforce such Joint Patent or to defend such Joint Patent in an infringement action, declaratory judgment action or other proceeding. In the event only one party wishes to participate in such proceeding, it shall have the right to proceed alone, at its expense, and may retain any recovery; provided that, at the request and

expense of the participating party, the other party agrees to cooperate and join in any proceedings in the event that a third party asserts that the co-owner of such Joint Patent is necessary or indispensable to such proceeding.

8. CONFIDENTIALITY.

8.1 Definition. As used herein, "Confidential Information" means any

information of a party disclosed by that party to the other party pursuant to such other parties' written request describing in detail the information necessary to accomplish the goals of this Agreement and the Research Plan and which is in written, graphic, machine readable or other tangible form and is marked "Confidential," "Proprietary" or in some other manner to indicate its confidential nature. Confidential Information also includes oral information disclosed by one party to the other pursuant to such written request, provided that such information is indicated to be confidential at the time of disclosure and is reduced to writing by the disclosing party within a reasonable time (not to exceed thirty (30) days) after its oral disclosure, and such writing is marked in a manner to indicate its confidential nature and delivered to the receiving party. Notwithstanding any failure to so identify it, all nonpublic Intellectual Property of each party shall be considered the Confidential Information of such party. Each party shall retain sole and exclusive ownership, right, title and interest in and to all of its Confidential Information.

8.2 Obligations. Should either party disclose to the other any of such

party's Confidential Information (the "Disclosing Party"), the party receiving the Confidential Information (the "Receiving Party") shall maintain the Confidential Information in confidence, shall use at least the same degree of care to maintain the secrecy of the Confidential Information as it uses in maintaining the secrecy of its own proprietary, confidential and trade secret information, shall always use at least a reasonable degree of care in maintaining the secrecy of the Confidential Information, shall use the Confidential Information only for the purpose of performing its obligations under this Agreement and the Research Plan and exercising its rights hereunder unless otherwise agreed in writing by the Disclosing Party, and shall deliver to the Disclosing Party, in accordance with any request from the Disclosing Party, all copies, notes, packages, diagrams, computer memory media and all other materials containing any portion of the Disclosing Party's Confidential Information which is not necessary for the Receiving Party to perform its obligations under this Agreement and the Research Plan and to exercise its rights hereunder. The Receiving Party shall not disclose any of the Disclosing Party's Confidential Information to any person except to those Receiving Party Affiliates, employees and consultants having a need to know such Confidential Information in order to accomplish the purposes and intent of this Agreement and the Research Plan. Such disclosure shall not be made until the Disclosing Party is notified and consents to the disclosure, such consent not to be unreasonably withheld. The Receiving Party shall ensure that each such Affiliate, employee and consultant has been instructed to keep confidential the Confidential Information of the Disclosing Party and shall ensure that each such Affiliate, employee or consultant has signed a confidentiality agreement prepared by the Disclosing Party covering the Confidential Information of the Disclosing Party.

8.3 Exceptions. A Receiving Party shall not have any obligation with

respect to any portion of Confidential Information of the Disclosing Party which the Receiving Party is able to demonstrate (i) was known by the Receiving Party at the time of disclosure by the Disclosing Party, as evidenced by written records of the Receiving Party, (ii) has become publicly known and made generally available through no wrongful act of the Receiving Party, (iii) is outside the scope of the written request pursuant to which such Confidential Information was initially disclosed, or (iv) has rightfully been received by the Receiving Party from a third party under no obligation to the Disclosing Party to keep such information confidential. Notwithstanding Section 8.2, a Receiving Party may disclose the Confidential Information of the Disclosing Party pursuant to a subpoena or other legal process, provided that the Disclosing Party is provided prior notice reasonably sufficient to permit the Disclosing Party to obtain a protective order and provided further that such disclosure shall not relieve the Receiving Party from future adherence to Section 8.1 with respect to such Confidential Information.

8.4 Reservation. Unless expressly provided for in this Agreement, a

Disclosing Party shall retain all rights, title and interest in its Confidential Information, and in no event will a Receiving Party have any license or right to a Disclosing Party's Confidential Information outside the Field.

8.5 Agreement as Confidential Information. Neither party shall issue a

press release or other publicity announcing the existence of this Agreement or the relationship between the parties or disclose the terms and conditions of the Agreement to any third party, without the prior written consent of the other party; except each party may disclose the terms and conditions of this Agreement: (i) as required by any court or other governmental body; (ii) as otherwise required by law; (iii) to legal counsel of the parties; (iv) in confidence, to accountants, banks, and financing sources and their advisors solely for the purposes of a party's securing financing; (v) in connection with the enforcement of this Agreement or rights under this Agreement; or (vi) in confidence, in connection with an actual or proposed merger, acquisition, or similar transaction solely for use in the due diligence investigation in connection with such transaction.

8.6 Publications and Disclosure. The parties hereby agree that the results

obtained in the course of performing under the Research Plan may not be published or otherwise disclosed without the express prior written approval of the Executive Sponsors, except in connection with the pursuit and maintenance of patent rights.

9. REPRESENTATION AND WARRANTIES; INDEMNIFICATION AND LIMITATION OF LIABILITY.

9.1 Senesco. Senesco represents and warrants that to the best of its

knowledge it has the right to make conveyances and grants in accordance with this Agreement, including, without limitation, that Senesco is free to conduct the Research Plan.

9.2 Tilligen. Tilligen represents and warrants that to the best of its

knowledge it has the right to make conveyances and grants in accordance with this Agreement, including, without limitation, that Tilligen is free to conduct the Research Plan.

9.3 Indemnification by Tilligen. Tilligen shall indemnify and hold

harmless Senesco, its Affiliates, and all their officers, directors, employees and agents, for any losses, claims, damages, judgments, assessments, costs and other liabilities, including reasonable out-of-pocket costs and expenses as they are incurred by Senesco in connection with any demands, law suits and other legal actions by third parties against Senesco arising from (i) the infringement or alleged infringement of any patent, trade secret or other intellectual property right of any third party as a result of the use of Tilligen Intellectual Property in accordance with the Research Plan, or (ii) any gross negligence or willful misconduct by or of Tilligen, its Affiliates, agents or sublicensees.

9.4 Indemnification by Senesco. Senesco shall, except to the extent caused

by Tilligen's gross negligence or willful misconduct, indemnify and hold harmless Tilligen, its Affiliates, and all their officers, directors, employees and agents, for any losses, claims, damages, judgments, assessments, costs and other liabilities, including reasonable out-of-pocket costs and expenses as they are incurred by Tilligen in connection with any demands, law suits and other legal actions by third parties against Tilligen arising out of or alleged to arise out of (I) the propagation, manufacture, use, distribution or sale by Senesco, any Senesco Affiliate, or any Senesco sublicensee or Contract Party of any Licensed Product or any other product or service covered by Senesco Intellectual Property; (ii) the infringement or alleged infringement of any patent, trade secret or other intellectual property right of any third party as a result of the use of Senesco Intellectual Property in accordance with the Research Plan; or (iii) any gross negligence or willful misconduct by or of Senesco, its Affiliates, agents or sublicensees.

9.5 Conditions and Limitations of Indemnification Obligation.

(a) In order to maintain the right to be indemnified by the other party ("Indemnitor"), the party claiming indemnification ("Indemnatee") must:

(i) notify the Indemnitor promptly after learning of any legal action undertaken by a third party and related to the subject matter of this Section 9 (a "Third Party Claim");

(ii) allow the Indemnitor to manage and control (by way of intervention or otherwise) the defense and settlement of any such Third Party Claim against the Indemnatee;

(iii) cooperate with the Indemnitor in the defense or the settlement negotiations of Third Party Claims as reasonable required by the Indemnitor; and

(iv) abstain from making any statements or taking any actions which damage the defense against a Third Party Claim (including, without limitation, any statements against the interest of the Indemnatee or admissions of causation or guilt).

(b) The Indemnitor shall not agree to any settlement that adversely affects the Indemnitee's rights or interest without the Indemnitee's prior written approval (which approval shall not be unreasonably withheld).

9.6 Limitation of Liability. EXCEPT WITH RESPECT TO THE INDEMNIFICATION

OBLIGATIONS SET FORTH HEREIN, NEITHER PARTY WILL BE LIABLE TO THE OTHER WITH RESPECT TO THE SUBJECT MATTER OF THIS AGREEMENT FOR ANY INCIDENTAL, INDIRECT, CONSEQUENTIAL, SPECIAL, OR PUNITIVE DAMAGES, OR LOST PROFITS OR THE COST OF PROCUREMENT OF SUBSTITUTE GOODS, TECHNOLOGY OR SERVICES REGARDLESS OF WHETHER ANY SUCH CLAIM FOR DAMAGES, LOST PROFITS OR OTHER COSTS IS BASED ON TORT, WARRANTY, CONTRACT OR ANY OTHER LEGAL THEORY, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

9.7 Risk of Failure; No Representations. Each of Senesco and Tilligen

recognize that risk is inherent in the collaborative efforts such as those being undertaken in this Agreement and each thereof voluntarily assume this risk. Accordingly, subject to the rights to terminate provided in Section 4, any other failure of any Intellectual Property provided for use in connection with or developed under this Agreement to perform as desired despite the reasonable efforts of the responsible party or parties will not be deemed to be a breach of this Agreement. Other than as set forth in this Agreement, NO PARTY MAKES ANY REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO PATENTS OWNED OR LICENSED BY THEM OR ANY KNOW-HOW INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF NONINFRINGEMENT, PATENTABILITY, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

10. APPLICABLE LAW.

10.1 Governing Law; Jurisdiction. The validity, interpretation and

performance of this agreement and any dispute connected with this agreement shall be governed by and determined in accordance with the statutory, regulatory, and decisional law of the State of Washington (exclusive of such state's choice or conflicts of laws rules and except for the U.N. convention on contracts for the international sale of goods). Subject to having first complied with the requirements of Section 11.3, any legal actions or proceedings brought under this Agreement brought by Senesco shall be subject to the exclusion jurisdiction of the state and federal courts in, and any mediation or arbitration proceeding initiated by Senesco pursuant to Section 11.3 shall occur in, King County, Washington; and any legal actions or proceedings brought by Tilligen shall be subject to the exclusive jurisdiction of the state and federal courts in, and any mediation or arbitration proceeding initiated by Tilligen pursuant to Section 11.3 shall occur in, Middlesex County, New Jersey, and each party hereby consents to the jurisdiction of the court as provided above.

11. MISCELLANEOUS PROVISIONS.

11.1 Notices. All notices and other communications required or permitted

under this Agreement shall be deemed to be properly given when in writing and sent by registered or certified mail, postage prepaid or by reputable courier service providing evidence of delivery or by facsimile with receipt confirmation, to the other party at the address set forth below, or at such other address as either party may be in writing designate from time to time for these purposes.

If to Tilligen: Tilligen, Inc.
1000 Seneca Street
Seattle, WA 98101
Attention: Chief Technical Officer
Fax No.: 206-903-0263

If to Senesco: Senesco Technologies , Inc.
303 George Street
Suite 420
New Brunswick, NJ 08901
Attention: Sascha Fedyszyn, VP, Corp. Dev.
Fax No.: 732.296.9292

11.2 Assignability. The rights and obligations acquired herein by the

parties are not assignable, transferable or otherwise conveyable, in whole or part (by operation of law or otherwise) to any third party without the consent of other party, which shall not be unreasonably withheld, except that either party may, without such consent, assign its rights and obligations to any purchaser of all or substantially all of the assets of the party related to this Agreement or to any successor corporation resulting from any merger or consolidation of a party. Any attempted assignment conflicting with this Section shall be null and void and without effect.

11.3 Dispute Resolution.

11.3.1 All claims, disputes, and other matters in controversy ("Dispute") arising directly or indirectly out of or related to this Agreement, or the breach thereof, whether contractual or noncontractual, and whether during the term or after the termination of this Agreement, shall be resolved exclusively according to the procedures set forth in this Section 11.3.

11.3.2 Mediation. No Party shall commence an arbitration proceeding pursuant to the provisions of Paragraph 11.3.3 below unless such Party shall first give written notice (a "Dispute Notice") to the other Party in the same manner otherwise provided for notice in this Agreement, setting forth with reasonable specificity the nature of the Dispute. The Dispute Notice shall constitute a notice and demand for mediation. The Parties shall attempt in good faith to resolve the Dispute by mediation under the CPR Mediation Procedure for Business Disputes in effect on the date of the Dispute Notice. CPR is the Center for Public Resources Institute for Dispute Resolution, 366 Madison Avenue, New York, NY 10017-3122. If the Parties cannot agree on the selection of a

mediator within twenty (20) days after delivery of the Dispute Notice, the mediator shall be selected by CPR. If the Dispute has not been resolved by mediation within sixty (60) days after delivery of the Dispute Notice, then the Dispute shall be determined by arbitration in accordance with the provisions of Paragraph 11.3.3 below.

11.3.3 Arbitration. Any Dispute that is not settled by mediation as provided in Paragraph 11.3.2 above shall be resolved by arbitration in accordance with the CPR Non-Administered Arbitration Rules in effect on the date of the Dispute Notice, as modified by the terms set forth in this Paragraph 11.3.3, by three independent and impartial arbitrators, of whom each party shall appoint one and the third, who shall serve as chairman, shall be appointed by CPR. The arbitration shall be governed by the Federal Arbitration Act, 9 U.S.C. ss. 1-16, and judgment upon the award rendered by the arbitrators may be entered by any court having jurisdiction thereof.

11.3.3.1 The arbitrators shall issue an award in writing specifying their findings of fact and conclusions of law. The arbitrators are not empowered to award damages in excess of compensatory damages and each Party hereby irrevocably waives any right to recover such damages with respect to the Dispute.

11.3.3.2 Upon the application by any Party to a court for an order confirming, modifying, or vacating the award, the court shall have the power to review whether, as a matter of law based on the findings of fact determined by the arbitrators, the award should be confirmed, or should be modified or vacated in order to correct any errors of the law governing the substance of this Agreement that may have been made by the arbitrators. In order to effectuate such judicial review limited to issues of law, the Parties agree (and shall stipulate to the court) that the findings of fact made by the arbitrators shall be final and binding on the parties and shall serve as the facts to be submitted to and relied on by the court in determining the extent to which the award should be confirmed, modified, or vacated.

11.3.4 If any Party fails to proceed with mediation or arbitration as provided herein or unsuccessfully seeks to stay such mediation or arbitration, or fails to comply with any arbitration award, or is unsuccessful in vacating or modifying the award pursuant to a petition or application for judicial review, the other Party(ies) shall be entitled to be awarded costs, including reasonable attorneys' fees, paid or incurred by such other party in successfully compelling such arbitration or defending against the attempt to stay, modify, or vacate such arbitration award and/or successfully defending or enforcing the award.

11.3.5 All applicable statutes of limitations and defenses based upon the passage of time shall be tolled while the procedures specified in this Section 11 are pending. The Parties will take such action, if any, required to effectuate such tolling.

11.3.6 The provisions of this Section 11.3 shall survive termination or expiration of this Agreement..

11.4 Severability. In case any one or more of the provisions contained in

this Agreement shall for any reason be held invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions hereof, but this Agreement shall be construed as if such invalid or illegal or unenforceable provisions had never been contained herein.

11.5 Counterparts. This Agreement may be executed in two (2) counterparts,

each of which shall be an original with the same effect as if the signatures thereto and hereto were upon the same instrument.

11.6 Headings. Headings as to the contents of particular Sections are for

convenience only and are in no way to be construed as part of this Agreement or as a limitation of the scope of the particular Sections to which they refer.

11.7 Export Control. Notwithstanding any other provisions of this

Agreement, Tilligen agrees to make no disclosure or use of any Senesco information or Senesco technology furnished or made known to Tilligen pursuant to this Agreement, and Senesco agrees to make no disclosure or use of any Tilligen information or Tilligen technology disclosed to Senesco pursuant to this Agreement except in compliance with the laws and regulations of the United States of America, including the Export Administration Regulations promulgated by the Office of Export Administration International Trade Administration, United States Department of Commerce; and in particular, each party agrees not to export, directly or indirectly, either

o the technical data furnished or made known to it by the other party pursuant to this Agreement; or

o the "direct product" thereof; or

o any commodity produced using such technical data

to any country or countries for which a validated license is required unless a validated license is first obtained pursuant to the Export Administration Regulations. The term "direct product" as used above, is defined to mean the immediate product (including process and services) produced directly by the use of the technical data.

11.8 Force Majeure. Except for payments of money, neither of the parties

shall be liable for any default or delay in performance of any obligation under this Agreement or the Research Plan caused by any of the following: Act of God, war, riot, fire, explosion, accident, flood, sabotage, compliance with governmental requests, laws, regulations, orders or actions, national defense requirements or any other event beyond the reasonable control of such party; or labor trouble, strike, lockout or injunction (provided that neither of the parties shall be required to settle a labor dispute against its own best judgment).

The party invoking this subparagraph shall give the other party written notice pursuant to Section 11.1 and full particulars of such force majeure event as soon as possible after the occurrence of the cause upon which said party is relying.

Both Senesco and Tilligen shall use reasonable efforts to mitigate the effects of any force majeure on their respective part.

11.10 Negation of Agency. It is agreed and understood by the parties hereto

that each of Tilligen and Senesco, in its performance of its obligations and responsibilities under this Agreement, is an independent contractor and that nothing herein contained shall be deemed to create an agency, partnership, joint venture or like relationship between the parties. The manner in which each of Tilligen and Senesco carries out its performance under this Agreement is within each of Tilligen's and Senesco's sole discretion and control.

11.11 Other Requests. The parties hereto agree that upon reasonable request

of the other party, each such party shall execute and deliver such additional documents and Agreements, and take such further actions, as may be necessary in order to fulfill and give effect to the terms of this Agreement.

11.12 Integration; Amendment and Waiver; Conflict. This Agreement,

including any exhibits or other attachments hereto, constitutes the entire agreement of the parties with respect to the subject matter hereof, and supersedes all prior or contemporaneous understandings or agreements, whether written or oral, between the parties with respect to the subject matters. This Agreement may be amended, modified, superseded or canceled, and any of the terms may be waived, only by a written instrument executed by each party or, in the case of waiver, by the party or parties waiving compliance. The delay or failure of any party at any time or times to require performance of any provisions shall in no manner affect the rights at a later time to enforce the same. No waiver by any party of any condition or of the breach of any term contained in this Agreement, whether by conduct, or otherwise, in any one or more instances, shall be deemed to be, or considered as, a further or continuing waiver of any such condition or of the breach of such term or any other term of this Agreement. In the event of any conflict or inconsistency between the terms and conditions of this Agreement and the terms and conditions of the Research Plan, the terms and conditions of the Agreement shall control.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed and delivered as of the Effective Date.

TILLIGEN, INC.

SENESCO TECHNOLOGIES, INC.

By /s/ Ken Hunt

By /s/ Sascha P. Fedyszyn

Date 9/20/02

Date 9/27/02

APPENDIX A

Senesco [**] supplies sufficient seed of [**] varieties of [**].

Tilligen determines mutagenesis protocol; and mutagenizes seed.

Tilligen, with [**], plants seed in [**] farm in summer of 2002.

Senesco provides DNA sequence of one to four Gene Targets to Tilligen.

Tilligen, [**] , and Senesco representatives to observe M1 plantings in fall of 2002.

Tilligen to design and test primers within 45 days of receipt of DNA sequence information from Senesco to be used for tilling.

Tilligen to harvest [**] seed (September to October 2002).

Tilligen to replant [**] M2 seedlings in greenhouse (planting November 2002 through February 2003; harvesting M3 seed June - August 2003).

Tilligen to prepare DNA samples from individual M2 [**] plants from late November 2002 into March 2003, and till for mutations in approved targets from December 2002 into June 2003. Results will be communicated to Senesco team on a biweekly basis.

For mutations of interest, Tilligen will propagate through self and backcross generations to homozygosity. At same time, seed containing the mutations (possibly heterozygous) will be provided to Senesco, along with sequence information of the mutation.

For mutations of interest, Tilligen will proceed to file provisionally with the US patent office. Subsequent actions on all patent filings will be jointly discussed by Tilligen and Senesco.

CONSULTING AGREEMENT

This CONSULTING AGREEMENT ("Consulting Agreement"), is effective November 1, 2002 by and between Senesco Technologies, Inc., a Delaware corporation with a place of business at 303 George Street, Suite 420, New Brunswick, NJ 08901 ("SENESCO"), and Alan B. Bennett Ph.D., whose address is Mann Laboratories, University of California, Davis, CA 95616 ("Bennett"):

WHEREAS, SENESCO is engaged in the business of research and development on plant genes and their cognate expressed proteins that are induced during or coincident with the onset of senescence, which may initiate or facilitate senescence of plants or plant tissues, together with methods for controlling senescence that involve altering the expression of these genes;

WHEREAS, SENESCO is also engaged in the business of research and development on mammalian genes and their cognate expressed proteins that are induced during or coincident with the onset of apoptosis, which may initiate or facilitate programmed cell death of mammalian tissue, together with methods for controlling apoptosis that involve altering the expression of these genes;

WHEREAS, Bennett may possess useful knowledge and technical expertise relating to SENESCO research and product development;

WHEREAS, SENESCO wishes to retain Bennett for professional consulting services;

WHEREAS, Bennett may receive, disclose, learn or acquire valuable and proprietary technical and commercial trade secrets and confidential information of SENESCO (collectively, the "Confidential Information"), from SENESCO or otherwise as a result of performing his consulting services under this Consulting Agreement;

WHEREAS, SENESCO and Bennett wish to assure that such information be held in secrecy and confidence by Bennett;

NOW, THEREFORE, in consideration of the foregoing and the mutual promises and covenants contained herein, the parties agree as follows:

I. DEFINITIONS.

"Technology and Inventions" shall mean any and all discoveries, inventions, conceived inventions and know-how, whether or not patentable, and whether or not reduced to practice, including any and all methods or processes, test data, findings, designs, machines, devices, apparatus, manufactures, and any improvements and/or any utility for the foregoing, which are made, conceived, discovered or developed by Bennett,

whether alone or in conjunction with others, which arise in any way from, during or as a result of the performance of Bennett's consulting services to SENESCO under this Consulting Agreement and which relate to the scope of this Consulting Agreement under Article II. This includes Technology and Inventions arising from any research and development by Bennett within the scope of Article II(a) as well as any technology identified by Bennett of interest to SENESCO within the scope of Article 11(b) Such Technology and Inventions may or may not be protectable in the form of a patent, a copyright or as a trade secret.

II. SCOPE OF THE CONSULTING AND EXPERT SERVICES.

Bennett will provide consulting and expert services relating to: (a) research and development on plant genes and their cognate expressed proteins that are induced during or coincident with the onset of senescence, which may initiate or facilitate senescence of plants or plant tissues, together with methods for controlling senescence that involve altering the expression of these genes; (b) research and development on mammalian genes and their cognate expressed proteins that are induced during or coincident with the onset of apoptosis, which may initiate or facilitate apoptosis of mammalian tissue, together with methods for controlling apoptosis that involve altering the expression of these genes; (c) the review of new technologies for potential acquisition, license, investment, and related activities for SENESCO; and (d) the identification of commercial partners and assistance in negotiation of business relationships for SENESCO.

III. SERVICES AND COMPENSATION.

In consideration for a monthly payment of \$2,400 (payable at the beginning of each monthly period, Bennett agrees to provide SENESCO with professional consulting and expert services within the scope provided under Article II for 2 to 4 days per month, and under the terms and conditions specified in this Consulting Agreement.

IV. NO USE OF THIRD PARTY'S INFORMATION.

Bennett represents that he can and will perform all services under this Consulting Agreement independent of any proprietary information or know-how received from or belonging to others, including, but not limited to proprietary information of the University of California. Bennett represents that he is

empowered by the University of California to perform all services under this Consulting Agreement independent of any obligations to the University of California including, but not limited to, rights of assignment and rights of first refusal within the scope of Article II. Bennett agrees under no circumstances to disclose or use proprietary information or know-how of any third party in performing services for SENESCO. Bennett will not represent as unrestricted any processes, designs plans, models, samples or other writings or products that Bennett knows are either covered by a third party's valid patent, copyright, or other forms of

intellectual property protection, or are under an obligation of assignment to a third party. Bennett represents and warrants that he is not rendering any service relating to the scope of this Consulting Agreement under Article II hereof and that he is not presently employed or engaged as a consultant to render any such services other than as a consultant to SENESCO.

V. CONFIDENTIAL INFORMATION.

A. Confidential information includes all information disclosed by SENESCO directly or indirectly to Bennett whether said disclosure is made in writing, by submission of samples, orally, or otherwise, including without limitation information relating to the matters which are within the scope and are the subject of this Agreement and all other information regarding SENESCO's past, present, or future research, technology, know-how, ideas, concepts, designs, products, prototypes, processes, machines, business plans, technical information, drawings, specifications and the like, and any knowledge or information, including but not limited to Technology and Inventions, developed by Bennett as a result of work in connection with this Agreement, except information which, at the time of disclosure to Bennett or development under this Agreement:

1. is established by written records to be in the public domain other than as a consequence of an act of Bennett;
2. was in Bennett's possession prior to the disclosure and is demonstrated through written records that such information was in Bennett's possession prior to disclosure from SENESCO, and was not the subject of an earlier confidential relationship with SENESCO; or
3. was rightfully acquired by Bennett from a third party, who was lawfully in possession of such information after the disclosure and was under no obligation to SENESCO to maintain its confidentiality.

B. All Confidential Information of SENESCO disclosed to Bennett shall remain the sole property of SENESCO. Bennett agrees that the Confidential Information will be kept in strict confidence until such Confidential Information becomes readily and conveniently available in the trade. Bennett agrees that he will not directly or indirectly disclose, furnish, disseminate, make available or use the Confidential Information except as necessary to perform the consulting and expert services under the provisions of this Agreement.

C. Bennett will promptly inform SENESCO if Bennett discovers that a third party is making or threatening to make unauthorized use of Confidential Information.

D. Bennett acknowledges that the agreements contained herein are of a special nature and that any material breach of this Agreement by Bennett will result in irreparable harm or injury to SENESCO. Accordingly, SENESCO shall be entitled to seek an injunction for specific performance, as well as any other legal or equitable remedy which may be available.

VI. DISCLOSURE OF INVENTIONS.

Bennett shall disclose fully and promptly to SENESCO in writing any and all Technology and Inventions pursuant to Articles I and II either: made or conceived of as set forth in Article 11(a) or identified for potential acquisition, license, or investment as set forth Article 11(b), or otherwise arising under this Consulting Agreement

VII. TECHNOLOGY AND INVENTIONS.

A. Bennett hereby assigns and agrees to assign to SENESCO all right, title and interest in any of the Technology and Inventions made, conceived of, identified or otherwise arising under this Consulting Agreement. All information and know-how relating to the Technology and Inventions is also deemed Confidential Information and shall be kept in confidence by Bennett pursuant to this Agreement.

B. SENESCO has control of all right, title and interest to any patent or patent application drawn to the Technology and Inventions made, conceived of, identified or otherwise arising during the performance of this Agreement SENESCO has the right to decide whether or not to pursue patent protection on any Technology and Inventions conceived of or made under this Agreement

C. Bennett agrees that SENESCO has the right to select an attorney or patent counsel to help secure patent protection to any Technology and Inventions made, conceived of, identified, or otherwise arising out of this Agreement. Bennett agrees that SENESCO has the right to select an attorney and/or other professionals necessary to evaluate and/or secure any technology identified by Bennett arising under this Agreement.

D. Designation of inventors in a patent application is a matter of patent law and shall be solely within the discretion of qualified patent counsel or other legal representatives for SENESCO.

E. Bennett shall, at the request and expense of SENESCO, at any time during or after the termination of the Agreement, execute all documents and perform all such acts as SENESCO may deem necessary or advisable to confirm SENESCO's sole and exclusive ownership right, title and interest in such Technology and Inventions in any country. Bennett agrees to do all acts and execute all documents at the expense and request of SENESCO that SENESCO may deem necessary to enforce its rights to the Technology and Inventions, including but not limited to assisting in the preparation of patent applications, assisting in litigation, appearing for depositions, and appearing as trial witnesses.

F. Nothing contained herein shall be considered as granting any license, immunity or other right with respect to any invention, patent trade secret, know-how or confidential information of SENESCO (apart from the right to make necessary use of the same in rendering Bennett's services hereunder) or as requiring either SENESCO or Bennett to enter into any subsequent agreement.

VIII. INDEPENDENT CONTRACTOR.

Bennett's relationship to SENESCO during the term of this Consulting Agreement shall be that of an independent contractor, and not as an employee or agent. Bennett may not make any commitments, or bind or purport to bind or represent SENESCO or any of its affiliates in any manner either as its agent or in any other capacity.

IX. NO CONFLICTING OBLIGATIONS.

Bennett represents and warrants that he has the full power to enter into and perform the services pursuant to this Consulting Agreement, and that Bennett is under no obligation or restriction and will not assume any obligation or restriction that would in any way interfere with, be inconsistent with, or present a conflict of interest concerning his services in connection with this Consulting Agreement.

In view of the highly confidential nature of the services to be rendered by Bennett under this Consulting Agreement, Bennett hereby agrees that he will not conduct any research, act as a consultant, or perform any other services, either directly or indirectly, for any entity in the world which is competitive with SENESCO relating to the subject matter provided in Article II herein during the term of work under this Consulting Agreement and for a period of one (1) year after the termination of this Agreement with regard to subject matter within the scope of Article II. The parties hereby agree that the period of time and scope of the restrictions specified herein are both reasonable and justifiable to prevent harm to the legitimate business interests of SENESCO, including but not limited to preventing transfer of Confidential Information to SENESCO's competitors and/or preventing other unauthorized disclosures or use of SENESCO's Technology and Inventions.

X. RETURN OF CONFIDENTIAL INFORMATION AND TANGIBLE PROPERTY.

The parties agree that all tangible property provided to or generated by Bennett in connection with this Consulting Agreement, including without limitation all samples, Confidential Information, reports, communications, analyses, memoranda, notes, contact lists, and any other information produced in connection with this Consulting Agreement (collectively "SENESCO Property") shall, upon the expiration or termination of the consulting work, be returned to SENESCO unless otherwise directed in writing.

XI. EFFECTIVE DATE AND LENGTH OF OBLIGATION.

This Consulting Agreement shall terminate one (1) year from its effective date. However, if Bennett dies or becomes incapacitated to the extent that he cannot perform the services specified in this Consulting Agreement, SENESCO has the right to terminate this Consulting Agreement. Bennett's obligation of confidentiality and non-use of Confidential Information shall continue from the effective date, or the date that SENESCO discloses such Confidential Information to Bennett, and shall survive the expiration or termination of this Consulting Agreement until the Confidential Information becomes part of the public domain through no actions of Bennett. SENESCO's rights under Articles V, VI, VII, and IX shall survive termination of this Consulting Agreement.

XII. SEVERABILITY.

If any provision of this Consulting Agreement should be determined by any court of competent jurisdiction to be invalid, illegal or unenforceable in whole or in part, and such determination should become final, such provision or portion thereof shall be deemed to be severed or limited to the extent required to render the remaining provisions and portions of this Consulting Agreement enforceable, and the Consulting Agreement shall be enforced to give effect to the intention of the parties insofar as possible.

XIII. APPLICABLE LAW.

This Consulting Agreement shall be interpreted and construed, and the legal relations created herein shall be determined in accordance with the laws of the State of New Jersey. Any provision or provisions of this Agreement which in any way contravenes the laws of any state or country in which this Agreement is effective shall, in such state or country as the case may be, and to the extent of such contravention of local law, be deemed separable and shall not affect any other provision or provisions of this Agreement.

IN WITNESS WHEREOF, and intending to be legally bound hereby, the parties have executed and delivered this Consulting Agreement as of the day and year first above written.

SENESCO TECHNOLOGIES, INC

By /s/ Alan B. Bennett

Alan B. Bennett PhD

By /s/ Bruce C. Galton

Bruce C. Galton
President and CEO

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-QSB of Senesco Technologies, Inc. for the period ended September 30, 2002 as filed with the Securities and Exchange Commission on the date hereof, the undersigned, Bruce C. Galton, President and Chief Executive Officer, hereby certifies, pursuant to 18 U.S.C. Section 1350, that:

(1) The Quarterly Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Quarterly Report fairly presents, in all material respects, the financial condition and results of operations of Senesco Technologies, Inc.

Dated: November 14, 2002

/s/ Bruce C. Galton

Bruce C. Galton

President and Chief Executive Officer
(principal executive officer)

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-QSB of Senesco Technologies, Inc. for the period ended September 30, 2002 as filed with the Securities and Exchange Commission on the date hereof, the undersigned, Joel Brooks, Chief Financial Officer and Treasurer, hereby certifies, pursuant to 18 U.S.C. Section 1350, that:

(1) The Quarterly Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Quarterly Report fairly presents, in all material respects, the financial condition and results of operations of Senesco Technologies, Inc.

Dated: November 14, 2002

/s/ Joel Brooks

Joel Brooks

Chief Financial Officer and Treasurer
(principal financial and
accounting officer)