



**BEE VECTORING TECHNOLOGIES INTERNATIONAL INC.**

**FORM 51-102F1  
MANAGEMENT'S DISCUSSION & ANALYSIS**

**May 28, 2019**

The following analysis concerns the financial situation, operating results and cash flows of Bee Vectoring Technologies International Inc. ("BVT" or the "Company") for the three and six months ended March 31, 2019, and the comparable period ended March 31, 2018. The discussion should be read in conjunction with the Company's unaudited condensed interim consolidated financial statements for the three and six months ended March 31, 2019 and related notes thereto and the annual audited financial statements for the years ended September 30, 2018 and 2017. The Company's financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS"). All monetary amounts are reported in Canadian dollars unless otherwise noted. These documents, as well as additional information on the Company, are filed electronically through the System for Electronic Document Analysis and Retrieval (SEDAR) and are available online at [www.sedar.com](http://www.sedar.com).

**Forward-Looking Statements**

This document may contain forward-looking statements relating to the Company's operations or to the environment in which it operates, which are based on the Company's operations, estimates, forecasts and projections. These statements are not guarantees of future performance and involve risks and uncertainties that are difficult to predict or are beyond the Company's control. A number of important factors including those set forth in other public filings could cause actual outcomes and results to differ materially from those expressed in these forward-looking statements. Consequently, readers should not place any undue reliance on such forward-looking statements. In addition, these forward-looking statements relate to the date on which they are made.

Forward-looking information reflects the Company's current beliefs and is based on information currently available to the Company and on assumptions it believes to be not unreasonable in light of all of the circumstances. In some instances, material factors or assumptions are discussed in this MD&A in connection with statements containing forward-looking information. Such material factors and assumptions include, but are not limited to: the forecasted demand for the Company's imaging services; the Company's success in obtaining patents for key technologies; the Company's success in expanding its product offerings; the Company's success in building differentiated applications and products; the ability of the Company to achieve rapid incremental customer growth; the Company's ability to retain key members of its management and development teams; and the Company's ability to access the capital markets. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking information, there may be other factors that cause actions, events or results to differ from those anticipated, estimated or intended. Forward-looking information contained herein is made as of the date of this MD&A and, other than as required by law, the Company's disclaims any obligation to update any forward-looking information, whether as a result of new information, future events or results or otherwise. There can be no assurance that forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking information.

## **Business Overview**

The common shares of the Company commenced trading on the Exchange under the stock symbol "BEE.V" on July 7, 2015.

BVT is a development stage company which owns the patent pending technology specifically designed to utilize bees as natural delivery mechanisms for a variety of powdered mixtures comprised of organic compounds or currently used products which inhibit or eliminate common crop diseases, while at the same time promoting the growth of the same crops. This application process is without the use of water which is beneficial to areas under strict water management practices. In addition, independent companies can deliver their biocontrol's through the BVT platform allowing a broad spectrum of applications.

The bees walk through the powder mixtures as they exit their hive and the mixture becomes temporarily attached to their legs en-route to the flowers containing the crops of interest. The BVT System consists of a dispenser tray that is incorporated into the lid of commercially reared bumblebee hives. The Company is developing a second system to be used with honeybee hives. The dispensers have a removable tray that can contain non-toxic, organic, pesticides and fertilizers in powdered form, including BVT's proprietary carrier Vectorite™. Vectorite allows the bees to effectively pick up the inoculums on their way out of the hive. Multiple inoculums for a variety of different pathogens can be mixed in the Vectorite™ in a process called "stacking". BVT has its own bio control organic inoculant fungi, BVT-CR7, used to inhibit and control pathogens in high value crops such as strawberries, blueberries, Tomatoes, Canola, Sunflowers.

The trays are changed approximately every three to nine days in order to replenish the depleted inoculum, ensure the freshness of the inoculant fungi, prevent infections to the bees which may result from bee waste, and avoid packing or clumping of the inoculum in the trays. No special skills are required to replace the trays and they take a minimal amount of time to put in place. Exact and predetermined amounts of inoculum are placed in the tray as well as other kinds of inoculum for certain applications. BVT has custom designed machinery to precisely fill these sealed trays called Vectorpaks™

### *Summary*

BVT was established with a view to providing effective protection of crops against disease organisms and insect pests, which is critical for achieving high yield and quality in many pollinated crops. Inadequate protection of crops can lead to major losses in yield and quality of fruit and seed. BVT possesses a patented and patent pending organic crop control and delivery system that has numerous competitive advantages over commercial pesticides and their applications.

The current technology used for protecting the flowers of crops relies heavily on the use of chemical pesticides (fungicides and insecticides) applied as sprays while the crops are in bloom. Problems with current spray technology include:

- Limited effectiveness because many flowers may open and die during spray intervals and therefore remain untreated. Sprays generally protect flowers for only 3-4 days. As many as half of the flowers during the entire bloom period of a crop may remain untreated by spray programs.
- Most of the pesticide is deposited on non-targets, such as soil and leaves.
- Pesticide sprays often kill or inactivate many beneficial organisms present in crops.
- Pesticide use risks contamination of the environment, such as soil and water resources.
- Pesticides can contaminate foods and feeds, such as fruits and seeds.
- With many crops, such as greenhouse tomatoes, workers cannot re-enter the crop for hours or days after pesticides are applied, which is disruptive to crop production practices and labour use.
- Many pesticides lose their effectiveness with repeated use as disease organisms, as pests and plants become resistant and insensitive to the repeated use of certain chemicals.
- Many chemicals require substantial amounts of water to be used as part of the delivery system and result in issues of run-off to the water table.
- Current chemicals are suspected of killing insects and bees and other organisms long after application with possible long-term detrimental effects on the environment.

BVT's patented and patent pending technology uses bumblebees and honey bees as a system to deliver naturally-occurring beneficial fungus and other beneficial microbes to flowering plants. BVT offers an organic means to control diseases and pests and provide plant enhancing properties while requiring zero water for delivery. The delivery method allows for delivery of BVT inoculums either individually or together with other bio controls. Multiple bio controls could be mixed together for delivery by bees to solve a range of problems. The platform can deliver many inoculums or pathogen controlling products effectively. The flower is an effective portal to deliver these controls to crops and bees are the ideal natural way to get to the majority of the blooms. Bees will touch almost all flowers that are in bloom thereby delivering inoculum consistently throughout a bloom period.

Prior to 1990 virtually no bees were used for pollination in greenhouses, however today greenhouses worldwide use bees to pollinate vegetable crops and fruits. The process of using bees as a delivery system is called "bee vectoring". BVT will employ these same bees to deliver inoculants on outbound trips to assist in crop pest control and to deliver a fertilizer or plant enhancer products in greenhouse crops and outdoor crops.

BVT currently targets two primary diseases with its own bio control BVT-CR7, Botrytis and Sclerotinia.

### ***Botrytis***

Strawberries, blueberries or raspberries often grow grey fuzz, which appears over time as the berries are stored or refrigerated resulting in waste. This is Botrytis and it becomes more active as the produce ripens in shipment or storage. The fungal pathogen, Botrytis cinerea, causes blossom blight and berry rot. It overwinters as mycelium in dead leaves and mummified berries of affected crops and as minute black bodies (sclerotia) such as on raspberry canes. Under humid conditions throughout the growing season, spores (conidia) are produced on minute tree-like structures (conidiophores) that grow on the dead foliage, old berries and on sclerotia. In mass they appear greyish hence the name "grey mold". The spores are dispersed in their millions by wind, rain, and overhead irrigation, many to new leaves, flowers and berries. Under favorable conditions of moisture and temperature the spores can germinate and infect these aerial parts of the crop.

The fungus can infect leaves of almost any age, but it remains quiescent and latent inside the leaves until they senesce and turn yellow. Young canes (primocanes) of raspberries can be infected via the leaf petioles and may wilt, die and be covered with grey mold. Flowers of all berry crops are highly susceptible to Botrytis infection. Germinating spores of the fungus can readily infect and colonize all flower parts throughout the bloom period, often turning the blossoms brown. It is from this important entry point that the fungus is able to grow and establish latent infections within the young fruit. Fruit infections generally remain quiescent and without symptoms until the berries are nearly ripe or have been harvested. In strawberries and raspberries, spores produced on unpicked, leaky, or overripe fruit may lead to further flower and fruit infections in the crop.

### ***Sclerotinia***

The soil borne pathogen Sclerotinia causes white mold diseases can seriously damage and in some cases quickly and completely destroy a crop. Numerous kinds of crops can be attacked, including canola, sunflowers, blueberries and strawberries.

Sclerotinia white mold is a significant risk in all fields of canola and sunflowers in Canada and in many other regions of the world. No viable solution exists for sunflowers as spraying is impractical due to height of the flowers and the frequency of applications needed for adequate control. In many areas, fungicides are no longer effective against Sclerotinia on account of pathogen resistance.

These two diseases, Botrytis and Sclerotinia, are very closely related and part of the reason BVT's patent pending biological control agent (bio-control) works on both pathogens. BVT's bio-control controls diseases by spatial occupation of plant tissues and preempting tissue invasion by pathogens. As soon as bees deliver BVT's patent pending bio to flowers, the fungus germinates and colonizes the flower tissues without causing any harm or symptoms. It colonizes earlier and faster than disease organisms and thereby occupies space the disease organisms would normally use while attacking the plant.

## Principal Products

BVT has patents pending for the following technologies:

1. bio-control called “BVT-CR7”: a particular strain of fungus acting as a beneficial endophyte controlling targeted crop diseases and increasing crop yield;
2. Vectorite™: a recipe of ingredients that allows bees to carry BVT-CR7 and other beneficial fungi or bacteria in their outbound flights to the crops; and
3. An integrated dispenser and removable and sealable tray system in which the Vectorite containing BVT-CR7 is placed through which the bees pass and pick up the BVT-CR7.

BVT-CR7, is an organic strain of a natural occurring endophytic fungus. It has not been genetically modified or altered in any way. Bees and plants are well accustomed to this kind of fungus and it is harmless to humans. After delivery by the bees to the crops it dies out naturally within 24-48 hours if it is unable to find suitable host plants. BVT-CR7 is a selected strain of a fungus that is commonly found in a large diversity of plants and soils all around the world. It grows harmlessly in the inside of plant tissue. BVT-CR7 is able to control numerous diseases but is especially effective for controlling those caused by the fungal pathogens, such as Botrytis and Sclerotinia discussed above. BVT-CR7 is endophytic in flowers, fruits, leaves, stems, and roots of plant hosts. It does not cause disease or substances toxic to plant tissue. Other microbial agents are not endophytic or have very limited endophytic ability.

As an endophyte, BVT-CR7 also enhances plant growth by organically increasing nutritional uptake, improving root size and structure, improving vegetative growth and size of plants, increasing the number of flowers and flower size, increasing resistance to diseases and environmental stresses, and preventing Botrytis and Sclerotinia development. BVT-CR7 has no re-entry issues (i.e. the time workers have to be excluded from the greenhouse to allow conventional pesticides to dissipate), it can be used up to the day of harvest, it's organic, and its beneficial effects last longer than traditional chemical fungicides.

Berries developing from BVT-CR7 treated flowers have natural built-in protection against diseases and consequently last longer and have a longer shelf life. This gives growers additional valuable time to get the fruit to market and consumers more time to enjoy the fruit. Blueberries, for example, sometimes require 14 days just to get to market.

Vectorite is a formulation of different ingredients including the BVT-CR7 bio-control, as well as other future bio-controls, specially formulated to allow the powder to attach to the legs and bodies of the bees and thus be carried by the bees towards the flowering crops as they leave the hives. One of the significant benefits to this system is the fact that several bio controls can be used together to cover more diseases and pests than just those targeted by BVT-CR7, thereby reducing costs and making this system more effective. For example, Thrips are present in almost all greenhouses in the world and a significant issue to the grower. Several bio-controls are already registered and produced by third parties for use in spraying applications to control Thrips. BVT will evaluate these bio-controls for suitability in its system and compatibility with BVT-CR7. One such bio-control is Beauveria, a fungus already registered and produced by third parties. Beauveria is used to control Thrips which either spread a virus that kills crops or lays their eggs in fruit like strawberries rendering them useless. Most if not all greenhouses, including flowering or ornamental greenhouses, in the world, suffer from Thrips.

BVT has developed an inoculum dispenser system that is incorporated into the lid of the commercial bumble bee hive. In the dispenser is a removable tray that contains, in powder form, the inoculant fungi and a mixture of products (being, Vectorite) that allows the bees to effectively pick up the product on their way out of the hive. Vectorite allows the inoculant to get attached to the bee's hairy legs and bodies as they walk through the tray on their way out of the hive.

Bumblebees are used because of their efficiency and effectiveness in distributing BVT-CR7. Bumble bee hives are produced commercially and are approximately 14 x14 x10 inches in dimension. Each hive holds up to 300 bumble bees and the bees live for live for approximately 5-6 weeks then die out naturally. At the end of this cycle, the hives are destroyed. Bumble bees are natural pollinators making thousands of trips a day each and visiting approximately 10 flowers per minute.

The Company is developing a similar system to work with honeybee hives. This system would open up additional opportunities in crops such as almonds and sunflowers where honeybees are used to pollinate crops more commonly.

### ***Factors Concerning the Company's Financial Performance and Results of Operations***

The key performance indicators for the Company are revenue growth, EBITDA and net income.

The success of the Company to expand will be measured by revenue growth. Revenue growth will be dependent on the Company being able to penetrate new markets, acquire new customers, and continued development of its technologies.

Management believes that net income is a measure of how efficiently and effectively the business is running. The Company is in a period of expansion and growth. Therefore, selling and general administration costs will increase over the next twelve months. To achieve an acceptable net income, management will need to balance the increase in selling and general administration costs and revenue growth. Net income is also viewed as an important measure for determining the value created for shareholders.

Management believes that in addition to revenue and net income, earnings from continuing operations before interest and finance costs, taxes, depreciation and amortization, other non-cash items and one-time gains and losses (for the purposes of the Company's MD&A, EBITDA) as derived from information reported in the statements of operations and comprehensive income is a useful supplemental measure as it provides an indication of the results generated by the Company's principal operating segments but also factors in the administrative expenses incurred during the period. It is believed that EBITDA will become a more meaningful metric in the future when it has had a chance to benefit from the planned marketing and development activities and the building of the required infrastructure to support recurring sales.

### **Strategic Positioning**

The Company is focusing on two key strategic priorities:

1. **Commercialization:** continue to gain grower acceptance through trials and demos, and secure regulatory approvals which will drive revenue in the prioritized crops. The focus is initially in berry crops in the Southeastern US;
2. **Selective Market Expansion:** expand its accessible market by developing additional crops in the US (e.g. indoor tomatoes, sunflowers), and by submitting for regulatory approval in additional countries.

To drive these priorities and build a sustainable business, the company is working on initiatives covering 4 areas of activity:

1. **Commercialization/Marketing** – the Company has proven the fit of its technology as a value-creating tool for growers in multiple crops and is aggressively pursuing commercialization. Activities in this area include market development and expansion, refining the product offer, establishing value proposition and positioning in prioritized crops, generating demand with growers, marketing and generating revenue.
2. **Product Development & Innovation** – the Company is creating a new category in the crop protection area, and excellence in product development and innovation are critical for sustainable long-term success. Activities include field trials in prioritized crops from proof of concept through commercial demonstrations, portfolio expansion projects and building a competitive advantage through intellectual property.
3. **Regulatory & Approvals** – regulatory approvals will give the Company complete license to operate and allow it to capture full value for its technology. Secured approvals and licenses represent competitive barriers and enable discussions with third party partners to accelerate commercialization and market expansion. Activities

include completing studies to prove the technology's efficacy and safety, submitting and pursuing regulatory approvals in select markets by using a network of regulatory subject experts who understand and are connected to the relevant authorities.

4. **Corporate Development including Partnerships** – the Company has unique technology that it believes will create a new category in crop protection and enhancement. The Company intends to build a strong internal foundational asset base and exploit partnerships to accelerate and expand its business. These partnerships will bring various strategic benefits, such as preferred supply arrangements (eg for bees), in-licensing of additional bio-control agents, go-to-market partnerships or strategic technology collaborations. Activities include building a high profile as an industry leader, a network of potential partners, and negotiating agreements that fill strategic needs and accelerate the business.

#### **Milestones achieved in during the year ended September 30, 2018 and to the date of this MD&A:**

##### ***Commercialization / Marketing activities:***

- Commercialization plan: The Company completed a successful pilot launch in strawberries and blueberries in Southeastern USA. While the focus of the pilot launch was in the Florida strawberry market, blueberry growers in Georgia contacted BVT to conduct evaluations of the BVT system on their own farms after hearing about the innovative approach taken by BVT to increase yield. Five strawberry and one blueberry grower were invoiced during the 2018/19 growing season representing the first commercial revenue for the company.

Revenue of \$58k under the pilot launch came from growers who have been participating in field trials and, until now, have used the system for free. As growers adopt the BVT system and can quantify their own crop improvements, the Company anticipates more treated acreage and converting additional growers into paying customers.

When comparing fields where the BVT system was added to the standard spray program versus those using the spray program alone, growers this season saw yield increases ranging from 28% to 146%. In addition, BVT completed a second year of replicated research and development trials with Dr. Natalia Peres, Professor, Strawberry Pathology at the University of Florida Institute of Food and Agricultural Sciences, and a leading strawberry expert and key opinion leader for the Florida strawberry grower community. As with the previous year, the BVT system delivered a higher yield when added to a standard spray program as compared to the spray program alone. The average yield increase over the two years of Dr. Peres' trial work is 20%.

- Market expansions: The Company has started the registration process and market development activities in Mexico. For assistance with the registration process in Mexico, BVT has contracted with a regulatory consultant, and started building relationships with large honey beekeepers as well as the two largest suppliers of bumble bees for pollination, which BVT intends to leverage for the Mexican market. Official trials, which are a requirement to support the registration process, are underway in Mexico.

The Company has started development activities to introduce growers to its product delivery platform that uses both honey and bumble bees to efficiently deliver disease control products to plants. The Company is planning to conduct trials and demonstrations in high-value crops where growers are familiar with using bees as part of a sustainable growing process, as well as proof of concept trials in crops such as greenhouse-grown peppers, avocados, and mangoes.

The Company has also started market development activities in Europe and submitted for regulatory approval in Switzerland during 2018. The dossier is under review by the Swiss authorities. Increasing restrictions on use of chemicals in Europe positions BVT favourably in this significant market. Industry partners, as well as farmers, need crop disease management alternatives that appeal to the environment conscious consumer. BVT is in active discussions with potential partners and is working on multiple testing and go-to-market agreements.

### ***Product Development / Innovation activities***

- Field trials: The Company continued its program of validating the fit and developing additional opportunities in targeted crops through its field trial program. It completed a second year of replicated research and development trials in strawberries as discussed in the commercialization section above. The Company also completed three years of replicated trials in sunflowers with North Dakota State University (NDSU).

It is common practice to have multiple seasons of trials before a solution is commercialized in the agricultural inputs industry to fully refine its value proposition given the inherent fluctuations in external conditions. Several factors, including weather, can affect the severity of fungal diseases that attack a crop in any given year and so repeating the crop studies allows to best characterize a product's effectiveness, in a variety of conditions, to ensure the grower optimizes their crop treatment plan.

For the 2019 spring and summer growing season further trials in blueberries and the Company's largest program in sunflowers are being planned. The trials in sunflowers will include work with sunflower processors (customers of growers) using the Company's new honeybee dispensing system.

- Product expansion: The Company has started the first wave of evaluations of third-party products to assess their potential for application to crops using BVT's proprietary bee delivery systems. This in-licensing effort resulted from the Company building a network of potential partners who have products that are suited for control of pests on crops during the flowering period. This will be an ongoing effort to expand the portfolio of products used in bee vectoring.
- Intellectual property: The Company continues to pursue an aggressive intellectual property strategy which gives it a competitive advantage as it continues to pursue third party partnerships and market expansion opportunities. The Company now has over 20 allowed patents across 5 continents - North America, South America, Europe, Asia and Australia. The patent portfolio includes families covering 5 technology areas.

### ***Regulatory / Approvals activities***

- US EPA approval process progressing - VECTORITE with CR-7<sup>TM</sup>, delivered by bees, has thus far passed all completed review by the US Environmental Protection Agency's (EPA) reviews without issue. The EPA is appropriately increasing the data requirements to confirm safety to pollinators and has asked for additional data to show safety in honey bee brood larva. This was not a requirement when the submission was made.

The Company completed and submitted results from the EPA's requested honey bee larval safety study along with a weight of evidence document in support of its regulatory approval process with the EPA in December 2018. The regulatory approval review process includes performing a risk assessment of the technology by the EPA. This includes looking at the exposure risk to workers and the environment (including bees), along with any potential toxicity. Since this is the first time a product that is being applied by bees is being evaluated by the EPA, BVT provided additional information in the form of a "weight of evidence" document discussing in particular the exposure risk to honey bee brood to help in EPA's review of the regulatory submission.

The Company held a meeting with EPA in April to go over this last submission and address any outstanding questions. The EPA was pleased by the outcome of the meeting. The EPA's function was affected by the partial US government shutdown in early 2019, but the review is well underway, and the company is expecting a decision in 2019.

- Organic certification obtained - BVT received official organic certification in the US, and its proprietary formulation of VECTORITE<sup>TM</sup> with CR-7 now listed by the Organic Materials Review Institute (OMRI). The listing means the product meets the US Department of Agriculture's (USDA) guidelines under the National Organic Program standard and is allowed for use in certified organic crops.

- Plant amendment licenses gained - BVT has received plant amendment licenses from five states in the US, including Florida, which allows BVT to sell its system on a limited basis.
- California regulatory submission - BVT had submitted application for pesticidal use in California in 2017. California which is the largest market opportunity in the US, requires its own approval over and above that of the EPA. This is under review by the authorities in California, although there is a significant backlog in the California Department of Pesticide Regulation.
- Submission in Switzerland - BVT has submitted its Swiss pesticidal registration application which is now under review.

***Corporate Development / Partnering activities:***

- Partnerships and product range extensions: BVT has entered into several third-party testing agreements of its proprietary beneficial microbe *Clonostachys rosea* strain CR-7 for use as a foliar spray and/or as a seed treatment. These product range extensions would open significant new markets. As noted earlier, BVT has also entered into multiple agreements to evaluate third-party microbial products for delivery through its bumble bee and honey bee delivery systems.

BVT entered into a global technology sharing agreement with Biobest Group NV of Belgium, a leading player in pollination and biological control with presence in 60 countries on 5 continents. The agreement provides reciprocal access to certain patents of each company and represents BVT's first partnership with a significant industry player. The agreement enables both companies to accelerate efforts to bring best in class bee vectoring solutions to growers worldwide and ensuring leading positions in the market.

Industry exposure: The Company continues to generate high levels of interest within the Agricultural industry and with the media. BVT is pursuing discussion with 15 companies covering 4 different areas: Commercial (distribution arrangements in markets where a partner company has a strong sales presence); Product expansion (partnerships with companies that have biological control agents that could be vectored by bees to manage pests on crops that are not addressed by BVT's CR-7); Market extension (foliar and seed treatment uses for CR-7 in areas where bees are not used); R&D (partnerships to strengthen knowledge of bees and delivery by bees thus optimizing the system and capturing greater value).

As the Company has no material revenue, its ability to fund its operations is dependent upon its securing financing through the sale of equity or assets. See "Risk Factors" below.



## Results of Operations

The following discussion of the Company's financial performance is based on the financial statements for three and six months ended March 31, 2019 and March 31, 2018.

As at March 31, 2019 the Company had a cash and cash equivalents balance of \$893,633 (September 30, 2018 - \$2,701,982) and total current assets of \$1,157,080 (September 30, 2018 - \$2,840,570) (consisting of cash, sales tax receivable and prepaid expenses and deposits). During the period, long term assets increased to \$1,389,199 from \$1,312,055 due to the registration of patents (included in intangible assets). Liabilities (all current) at March 31, 2019 totalled \$148,475 (September 30, 2018 - \$281,359) and comprised of trade payables and accruals.

Working capital, which is comprised of current assets less current liabilities, was \$1,008,605 at March 31, 2019 compared to \$2,559,211 at September 30, 2018.

For the three and six months ended March 31, 2019, the Company had a net loss of \$846,958 and \$1,491,796 compared to a net loss of \$882,815 and \$1,578,417 for the three and six months ended March 31, 2018. During the period the Company commenced commercial sales with a pilot launch continued to conduct trials and research to prove the benefits of the Company's technology, bring awareness of the Company and technology to growers and the public through various initiatives, and continued general corporate activities.

### Revenue and gross profit:

During the three months ended March 31, 2019, the Company launched its pilot project for commercial sales of its proprietary bee-based crop enhancement technology used for increased plant health and marketable yield into the Florida strawberry and Georgia blueberry markets. Cost of sales were high due to the small-scale of the pilot launch.

	Three months ended March 31,		Six months ended March 31	
	2019	2018	2019	2018
Sales	\$ 58,084	\$ -	\$ 58,084	\$ -
Cost of sales	45,149	-	45,149	-
Gross profit	\$ 12,935	\$ -	\$ 12,935	\$ -

### Expenses:

A summary of the expenses for three and six months ended March 31, 2019 and March 31, 2018 is as follows:

	Three months ended March 31,		Six months ended March 31	
	2019	2018	2019	2018
<b>Expenses</b>				
Office and general	\$ 508,986	\$ 453,380	\$ 876,091	\$ 767,018
Investor and public relations	22,735	53,828	51,265	226,263
Sales, advertising and marketing	153,937	65,987	293,575	87,694
Share based payments	41,442	202,894	54,112	230,129
Trials, Research and development	132,793	106,726	236,483	267,313
<b>Total</b>	<b>(859,893)</b>	<b>(882,815)</b>	<b>(1,511,526)</b>	<b>(1,578,417)</b>

Office and general:

Below is a breakdown of what comprised office and general:

	Three months ended March 31,		Six months ended March 31,	
	2019	2018	2019	2018
Accounting and audit	\$ 19,060	\$ 17,260	\$ 34,160	\$ 30,400
Amortization and depreciation	16,973	23,060	40,687	40,793
Consulting	38,000	96,720	83,872	124,490
Insurance	6,501	5,894	16,509	12,017
Legal and regulatory	166,534	49,580	177,517	66,533
Occupancy costs	24,041	18,743	56,956	50,937
Office and general	30,888	26,160	57,197	52,912
Salaries and benefits	172,120	154,064	334,283	299,927
Warehouse supplies	2,258	1,326	4,976	3,122
Transfer agent	14,148	18,049	15,524	22,083
Travel	18,463	42,524	44,410	63,804
	\$ 508,986	\$ 453,380	\$ 876,091	\$ 767,018

Investor and public relations: The Company undertakes various initiatives in order to market and communicate with investors and to educate the public on the Company and its products. Less funds were allocated to this expense during the period.

Sales advertising and marketing: There was increase in this expense category compared to the three and six months ended March 31, 2018, as in the current period, the company worked towards, and reached, commercialization of the Company's delivery system. As such, the Company targeted various business opportunities through these marketing initiatives.

Share based payments:

This expense relates to the value of stock options that vested during the period. This is a non-cash expense.

Research and development:

This expense relates to lab research, trials and demonstrations of BVT's crop inoculation products and bee delivery platform.

Interest income

During the six months ended March 31, 2019, the Company also earned interest income of \$6,795.

### Summary of quarterly results

Three Months Ended	Net Revenues (\$)	Net Loss	
		Total (\$)	Basic and Diluted (Loss) Per Share (\$)
31-Mar-19	58,084	(846,958)	(0.01)
31-Dec-18	-	(644,836)	(0.01)
30-Sept-18	-	(703,669)	(0.01)
30-June-18	-	(710,775)	(0.01)
31-Mar-18	-	(882,814)	(0.01)
31-Dec-17	-	(695,602)	(0.01)
30-Sep-17	-	(904,476)	(0.02)
30-Jun-17	-	(695,163)	(0.01)

## Liquidity and Capital Resources

	March 31, 2019	September 30, 2018
	\$	\$
Cash	893,633	2,701,982
Working capital	1,008,605	2,559,211

For the six months ended March 31:	2019	2018
	\$	\$
Cash used in operating activities	(1,687,049)	(1,307,016)
Cash used in investing activities	(121,300)	(131,353)
Cash from in financing activities	-	4,510,189

### *Cash used in operating activities*

Cash used in operating activities for the six months ended March 31, 2019 and March 31, 2018 were as follows:

Six months ended March 31,	2019	2018
<b>Cash used in operating activities</b>		
Net loss	\$ (1,491,796)	\$(1,578,417)
Items not affecting cash		
Share based payments	54,112	230,129
Foreign exchange differences	(35,778)	(11,683)
Depreciation and amortization	44,156	40,791
	<b>(1,429,306)</b>	<b>(1,319,180)</b>
<b>Net changes in non-cash working capital items</b>		
Sales tax and other receivables	(24,914)	31,260
Prepaid expenses and deposits	(99,945)	84,474
Accounts payable and accrued liabilities	(162,884)	(103,570)
	<b>(1,687,049)</b>	<b>(1,307,016)</b>

### *Cash flows used in investing activities*

Major components of this period were costs related to patent registrations.

### *Cash flows from financing activities*

There was no cash used in or from financing activities during the six months ended March 31, 2019. During the six months ended March 31, 2018, the Company received \$4,435,814 of net proceeds from the issue of common shares, and \$74,375 from the exercise of options and warrants.

## Future Financing

Notwithstanding its cash position at March 31, 2019, the Company will need additional financing for costs related to operations, conducting trials and its growth strategy. Management recognizes the need for improved cash flow and liquidity for future operations and growth. Management closely monitors the Company's current cash position and the short-term and long-term cash requirements. The Company may be required to obtain additional funding to take advantage of the market opportunities. If additional funding is required, an issuance of common shares or a commitment to issue common shares will most likely be a component of the funding.

The Company's operations currently generate negative cash flow and may depend on future equity issuances or other means of financing to assist in financing its operations, cover administrative costs, conduct research and finance growth.

The ability of the Company to continue operations will be dependent upon obtaining additional financing as required. The timing and ability to do so will depend on the liquidity of the financial markets as well as the

acceptance of investors to small cap companies, in addition to the results of the Company's operation. There can be no guarantee that the Company will be able to secure any required financing.

### Commitments

The Company leases office space for their headquarters in Mississauga Ontario. The lease is for five years with annual minimum lease payments as follows:

Year	Minimum lease payment
2019	56,789
2020	58,515
thereafter	<u>4,888</u>
Total	\$ 120,192

### Off Balance Sheet Arrangements

The Company does not have any off-balance sheet arrangements that have, or are reasonably likely to have, a current or future effect on the results of operations or financial condition of BVT including, without limitation, such considerations as liquidity and capital resources that have not previously been discussed.

### Related Party Transactions

Key management includes members of the board, the Chief Executive Officer and the Chief Financial Officer. The aggregate value of transactions relating to key management personnel and entities over which they have control or significant influence were as follows for the six months ended March 31, 2019 and March 31, 2018:

	2019	2018
CEO fees (i)	\$ 206,174	\$ 203,145
CFO fees (ii)	15,000	15,000
Consulting fees charged by a Chelsian Sales & Service (iii)	30,000	36,000
Consulting fees charged Flueckiger Consulting (iv)	56,619	44,081
Share based payments	255,321	114,000
	<b>\$ 563,114</b>	<b>\$ 412,226</b>

- (i) Salary and/or consulting fees paid to the CEO for services rendered.
- (ii) Consulting fees charged by CFO Advantage Inc, a corporation owned by the CFO of the Company, for services of the Chief Financial Officer.
- (iii) Consulting fees charged by Chelsian Sales & Service Inc, a corporation owned by a director, for assisting with day-to-day operations.
- (iv) Consulting fees charged by Flueckiger Consulting, a corporation owned by a director of the Company, for reviewing product development and marketing plans, reviewing data from trials, and other services as required. As at March 31, 2019 \$nil (September 30, 2018 - \$6,826) was owed to Flueckiger consulting.
- (v) \$9,000 (2018 - \$9,000) was charged by a relative of a director of the Company for marketing services.
- (vi) The Company employs a relative of a director of the Company as project manager. During the six months ended March 31, 2019, the employee earned a salary and benefits of \$48,000 (2018 - \$42,200).
- (vii) See note 10 of the consolidated financial statements for issuances of options and restricted share units to officers and directors.

### Proposed Transactions

As at the date of this MD&A there are no proposed transactions.

## **Accounting Estimates and judgements**

The preparation of these consolidated financial statements requires management to make judgments and estimates that affect the reported amounts of assets and liabilities at the date of the consolidated financial statements and reported amounts of expenses during the reporting period. Actual outcomes could differ from these judgments and estimates. The consolidated financial statements include judgments and estimates which, by their nature, are uncertain. The impacts of such judgments and estimates are pervasive throughout the consolidated financial statements and may require accounting adjustments based on future occurrences. Revisions to accounting estimates are recognized in the period in which the estimate is revised and also in future periods when the revision affects both current and future periods.

Significant assumptions about the future and other sources of judgments and estimates that management has made at the end of the reporting period, that could result in a material adjustment to the carrying amounts of assets and liabilities, in the event that actual results differ from assumptions made, relate to, but are not limited to, the following:

### *Intangible assets valuation*

These estimates and assumptions could affect the Company's future results if the current estimates of future performance and fair values change. These determinations will affect the amount of amortization expense on definite life intangible assets recognized in future periods. The Company assesses impairment by comparing the recoverable amount of an intangible asset with its carrying value. There recoverable amount is defined as the higher of value in use, or fair value less cost to sell. The determination of the recoverable amount involves management estimates.

### *Useful life of property plant and equipment*

Significant estimates are made as to the useful lives of property, plant and equipment.

### *Valuation of Share-based payments*

The Company uses the Black-Scholes Option Pricing Model to calculate the fair value stock options and of common share purchase warrants issued. The model requires the input of highly subjective assumptions including the expected price volatility. Changes in the subjective input assumptions can materially affect the fair value estimate.

## **Judgements**

### *Capitalization of development costs*

Initial capitalization of development costs is based on management's judgment that technological and economic feasibility is confirmed, usually when the product development project has reached a defined milestone according to an established project management model.

### *Capitalization of regulatory costs*

Initial capitalization of regulatory costs is based on management's judgment that future economic benefits attributable to the Companies assets will flow to the Company.

### *Functional currency*

In concluding on the functional currency of the parent and its subsidiary companies, management considered the currency that mainly influences sales and the cost of providing goods and services in each jurisdiction in which the Company operates. The Company also considered secondary indicators including the currency in which funds from financing activities are denominated, the currency in which funds are retained and whether the activities of the subsidiaries are carried out as an extension of the Company or if they are carried out with a degree of autonomy.

### *Going concern*

The company applies judgement in assessing whether material uncertainties exist that would cause doubt as to whether the company could continue as a going concern.

## **Recent accounting pronouncements**

Certain pronouncements were issued by the IASB or the IFRIC that are mandatory for accounting periods on or after January 1, 2019 or later periods. Many are not applicable or do not have a significant impact to the Company and have been excluded. The following have not yet been adopted and are being evaluated to determine their impact on the Company.

IFRS 16 – Leases sets out a new model for lease accounting, replacing IAS 17. “Leases” and related interpretations. Under this new standard which provides a single model for leases abolishing the current distinction between finance leases and operating leases, most leases will be recognized in the consolidated statement of financial position. Certain exemptions will apply for short-term leases and leases of low-value assets. IFRS 16 will be effective for accounting years beginning on or after January 1, 2019. Early adoption will be permitted, provided the Company has adopted IFRS 15. Based on the leases in the current year, the impact of IFRS 16 is not material.

## **Financial Instruments**

### **Fair Value**

Financial instruments of the Company as at March 31, 2019 and September 30, 2018 consist of cash and cash equivalents and accounts payable and accrued liabilities. There are no significant differences between the carrying amounts of the items reported on the condensed interim consolidated statements of financial position and their estimated fair values because of the short-term maturities of these items.

The Company’s risk exposures and their impact on the Company’s financial instruments are summarized below.

### *Market risk*

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market prices comprise four types of risk: interest rate risk, foreign exchange risk, commodity price risk and other price risk, such as equity risk. Financial instruments affected by market risk include cash deposits.

### *Foreign currency risk*

Foreign exchange risk arises from the changes in foreign exchange rates that may affect the fair value or future cash flows of the Company’s financial assets or liabilities. The Company’s exposure to this risk is insignificant.

### *Interest rate risk*

The Company is exposed to insignificant interest rate risk. Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate due to changes in market interest rates. Fluctuations in market interest rates do not have a significant impact on the Company’s results of operations due to the short-term nature of interest bearing cash.

### *Credit risk*

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its obligations. The Company’s maximum exposure to credit risk at the end of the reporting period is the carrying value of its financial assets (i.e. cash). Cash is held with both financial institutions in Canada and the United States, and management believes that exposure to credit risk is not significant.

### *Liquidity risk*

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company currently settles its financial obligations out of cash. The ability to do this relies on the Company raising financing in a timely manner and by maintaining sufficient cash in excess of anticipated needs. See note 1 for further disclosure on the going concern assumption.

The Company's accounts payable and accrued liabilities are subject to normal trade terms and have contractual maturities payable within 30 days for 2019 and 2018. At March 31, 2019, the Company has current assets of \$1,157,080 (September 30, 2018 - \$2,840,570) and current liabilities of \$148,475 (September 30, 2018 – \$281,359) resulting in working capital of \$1,008,605 (September 30, 2018 – \$2,559,211).

**Disclosure of Share Capital**

As at the date of this report the Company had 77,599,271 common shares issued and outstanding.

As at the date of this report the Company had 14,550,700 share purchase warrants outstanding.

As at the date of this report the Company 6,910,018 stock options outstanding.

**Risks**

*See risk section detailed in the Company's filing statement as filed on SEDAR on June 1st, 2015.*