

## Deep Dive: Village Farms International

**V**illage Farms International (Nasdaq: VFF; TSX: VFF) is one of the few companies in the marijuana and hemp industries with a positive consensus EPS estimate for 2019. If the company successfully executes its marijuana and hemp expansion plans, it has the potential for a multiyear earnings growth story that could be among the best in class in the cannabis industry.

All financial data in this report is presented in Canadian dollars, unless otherwise noted.

To the right are the consensus EPS estimates from Connecticut-headquartered FactSet for years 2019 through 2021.

	2017A	2018A	2019 CE	2020 CE	2021 CE
Consensus EPS Estimate	\$0.13	(\$0.15)	\$0.25	\$0.72	\$1.29
Y/Y Growth				183%	80%

Source: Factset Financial

### BUSINESS DESCRIPTION

Canada-based Village Farms is one of the largest producers of premium quality greenhouse tomatoes, bell peppers and cucumbers in North America. The company is in the process of transforming to capitalize on the Canadian marijuana market and the U.S. hemp and CBD market by:

- Creating a joint venture, Pure Sunfarms, that gives it access to the Canadian cannabis market.
- Entering into several joint ventures and developing internal, fully integrated growing, extraction and production to tap into U.S. hemp and CBD opportunities.

The company is still in the early stages of this strategy, so there will be a lot of operational change in the coming years.

Regarding the company's internal hemp cultivation facility in Texas, Village Farms CEO Mike DiGiglio has said:

“In our greenhouse hemp program, we continue to work with the Texas Department of Agriculture on the implementation of its hemp regulatory framework subject to the recently published U.S. Department of Agriculture rules and are optimistic that licensing could commence in the first quarter of 2020.”

VFF is a produce industry leader in megascale, precision greenhouse agriculture, which it uses to benefit its joint ventures and wholly owned cultivation. The company's October 2019 investor presentation highlights what they believe are their multiple competitive advantages in agriculture.

**Leaders in High-Tech, Low-Cost Vertically Integrated Greenhouse Growing**

**Experts**  
in agricultural product safety

**750 years**  
of combined master grower  
experience from around the world

**30-year**  
history developing and operating  
mega-scale greenhouses

**Decades** of experience as a  
vertically integrated grower/distributor,  
meeting the stringent specifications of  
North America's top grocers

**Leaders**  
in crop management  
registrations in North America

**Proven**  
track record as a  
low-cost operator

**Cannabis and hemp are agricultural products like any other**

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### CANNABIS, HEMP AND CBD TRANSFORMATION

VFF management believes the company's decades of expertise in megascale precision agriculture gives the Pure Sunfarms joint venture a cost-of-production edge versus competitors and that it can become the low-cost producer of cannabis in Canada. Management also believes VFF's deep cultivation experience will provide a cost-of-production edge to the company's hemp joint ventures as well as its internal cultivation effort when that begins.

In June 2017, VFF formed a 50/50 joint venture with Emerald Health Therapeutics (TSX: EMH), Pure Sunfarms, to grow and sell cannabis in the Canadian market. As of Nov. 26, 2019, Village Farms is the majority owner of the Pure Sunfarms JV.

The company has no intention of growing cannabis at its U.S. greenhouse facilities or holding any equity investments in U.S. cannabis cultivation businesses until it is federally legal to do so.

In 2019, VFF formed several joint ventures for hemp cultivation, extraction and CBD product manufacture and distribution in the United States.

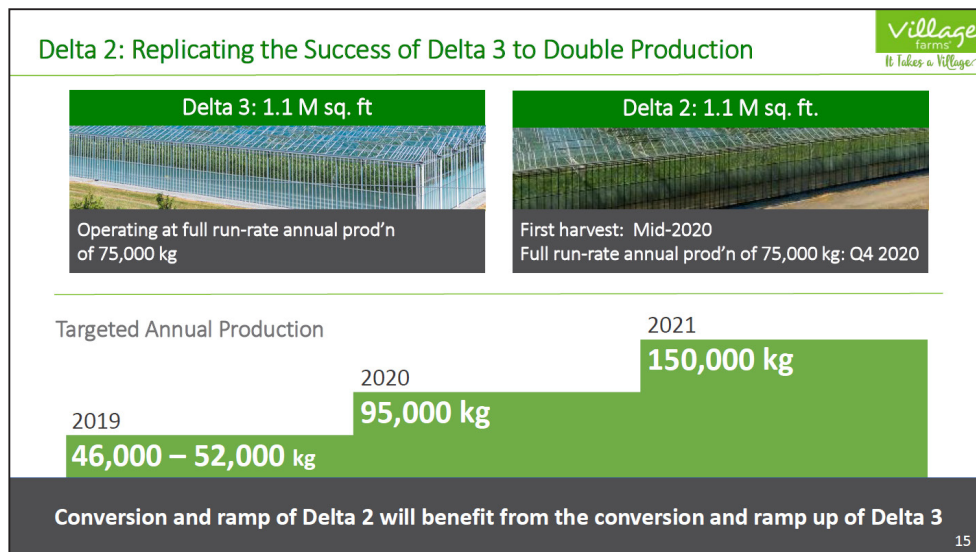
### CANNABIS CULTIVATION

Pure Sunfarms operates two cultivation facilities and has an option on a third, all in the Fraser Valley of British Columbia, Canada. The facilities:

- **Delta 3** is a 1.1-million-square-foot grow facility with annual capacity of 75,000 kilograms to produce dried cannabis. The facility was at full-capacity run rate as of July 2019.
- **Delta 2** is a 1.1-million-square-foot grow facility with 75,000 kilograms of annual capacity to produce dried cannabis. Delta 2 is expected to begin production as early as 2Q20 with a target of full operating production by the end of 4Q20.
- **Delta 1** is a 2.6-million-square-foot cultivation facility with 180,000 kilograms of annual capacity to produce dried cannabis. The joint venture has the option to cultivate at this facility but has not exercised that option yet. If the joint venture does not option the facility by September 2021, Village Farms can use the facility for whatever purpose it chooses.

## CANNABIS PRODUCTION

The Delta 3 facility is currently at the full annual run rate production of 75,000 kilograms of dried cannabis, while the Delta 2 facility is expected to begin production in 2Q20. The slide below shows the company's targeted annual production ramp through 2021.



It remains to be seen if the joint venture will option the capacity of the Delta 1 facility. If it does so by September 2021, the facility could add significant capacity, raising production to an estimated 330,000 kilograms from 150,000 kilograms.

But remember, VFF benefits from additional capacity of the joint venture by its percentage ownership of the joint venture.

If the joint venture does not option the Delta 1 facility and VFF chooses to transition the facility from grocery store produce to cannabis cultivation, the company would benefit from the entire production capacity of Delta 1, estimated at 180,000 kilograms of dried cannabis annually.

The Pure Sunfarms joint venture has an agreement with a Canadian licensed producer to purchase 40% of 2019 cannabis production at a contractually fixed price and 25% of production in years 2020-2022 at the prevailing market prices.

From its start, Pure Sunfarms had a road map to move up the cannabis value chain, first wholesaling dried flower to other licensed producers, then developing in-house dried flower product and selling directly to the provinces. The joint venture will soon add pre-rolls and oils to the product mix and, ultimately, extraction for cannabis 2.0 product forms.

From commencement of operations through September 2019, the joint venture generated revenue from wholesaling to other cannabis companies. In the past few months, the joint venture has received its packaging license, launched its own branded products and announced agreements to sell in several Canadian provinces that represent about 64% of Canada's total population, including:

- Received its packaging license and launched the Pure Sunfarms brand in Ontario in September.
- Started selling the Pure Sunfarms brand in British Columbia in October.
- Announced a supply agreement with Alberta Gaming, Liquor & Cannabis to supply recreational adult-use marijuana products to the province's licensed private retailers in November. Shipping is expected to begin in the coming weeks.

The Pure Sunfarms product is positioned as affordable luxury. VFF management provided initial product launch results on its third-quarter 2019 earnings conference call.

- Pure Sunfarms was the top-performing brand of dried flower by both kilograms sold and dollar sales with the Ontario Cannabis Store (OCS) in October 2019, achieving 16% market share (by kilograms sold).
- Pure Sunfarms' dried flower products outsold the second-ranked dried flower brand's products 2-to-1 (by kilograms sold).
- Pure Sunfarms' Afghan Kush was the top-selling dried flower product with the OCS in October.
- Three of the seven top-selling dried flower products with the OCS in October were Pure Sunfarms products.
- In British Columbia, Pure Sunfarms sold out its first order to the BC Liquor Distribution Branch in fewer than three weeks to rank among the top 10 brands by sales for all product categories in October.

On the third-quarter 2019 earnings call, Village Farms management indicated the joint venture has extraction equipment installed and is in the process of getting the equipment commissioned. Management anticipates it could be licensed and operating by the end of the second quarter of 2020.

Leadership provided an update about the JV's extraction efforts on that call:

“...Completed installation of extraction equipment (with processing capacity of 35,000 kilograms of biomass annually) in its new 65,000-square-foot, state-of-the-art processing center within the Delta 3 greenhouse facility in preparation for Cannabis 2.0. The processing center has been designed for full GMP compliance and certification to allow for future exportation and is expected to be operational as soon as possible, subject to Health Canada licensing and inhouse calibration and testing.”

### DIFFERENTIATED CULTIVATOR

We believe that VFF's cultivation expertise and experience means that its joint ventures can be long-term winners in the cannabis and hemp cultivation space because the company has industry-leading facilities, technology, data and employees. VFF management believes those factors provide its joint ventures a cost advantage versus peers.

Many cannabis industry participants recognize that a major portion of cannabis cultivation could be a commodity product in the future, apart from small-batch and craft cultivation. When a significant amount of cultivation is commoditized, we believe cost of production along with consistency and high quality will likely be the key differentiators. VFF's numerous joint ventures and in-house cultivation facilities would be well-positioned to succeed in that environment.

Differentiated Cannabis Strategy Driving Industry-Leading Performance		Village Farms It Takes a Village.
Conversion of existing large scale, low-cost precision agricultural operations		
Extensive in-house facilities development and conversion expertise		
Proven operating systems and 20 years of site-specific experience		
Experienced growing/operational teams		
Decades of climatological data		
Established, trained labour force		
Supported by Village Farms' three decades of experience growing many different crops		

## COMPETITOR COST OF PRODUCTION

Compared to production costs of certain other large Canadian licensed producers, Village Farms appears to have a significant production cost advantage. How large an advantage is difficult to say because cost of production is not a standardized metric.

VFF takes a very conservative approach with its “all-in” cost of production, which accounts for all cost of goods sold, depreciation, packaging, etc. Other companies exclude some, or all, of those costs when presenting production expenses. Even though a cost-of-production metric isn’t calculated the same by all companies, we present the data below with the actual terminology and value the listed companies used in their most recent financial reporting (data presented in CA\$).

	All In	Cash	Post Harvest	Cost of Sales	Cost of Cultivation	Cost per Gram Sold
Village Farms	\$0.63					
Aurora		\$0.85				
Aphria	\$2.52					
CannTrust		\$2.77		\$3.03		
Auxly			\$2.25			
Cronos				\$2.27		
Organigram					\$0.94	
Tilray				\$2.28		\$2.28
<b>Average</b>	<b>\$1.98</b>					

The amount that the Pure Sunfarms joint venture contributes to VFF earnings (through the income statement as share of income or loss from joint ventures) has started to rise over the past several quarters as revenue has grown.

As part of its quarterly financial releases, VFF presents a reconciliation to IFRS-proportionate results, which shows the company’s proportionate share of the Pure Sunfarms joint venture operations.

	4Q18	1Q19	2Q19	3Q19
Produce Sales	38,787	31,890	41,329	38,293
PSF Sales	1,803	5,400	12,122	9,042
<i>Produce + PSF</i>	<i>40,590</i>	<i>37,290</i>	<i>53,451</i>	<i>47,335</i>
<i>Produce % of Total</i>	<i>96%</i>	<i>86%</i>	<i>77%</i>	<i>81%</i>
<i>PSF % of Total</i>	<i>4%</i>	<i>14%</i>	<i>23%</i>	<i>19%</i>

Using VFF company projections of the joint venture’s targeted annual production (currently 46,000-52,000 kilograms and rising to an estimated 150,000 kilograms in 2021), we estimate that the percentage of earnings that VFF derives from its Pure Sunfarms joint venture could ramp significantly by 2021.

## HEMP CULTIVATION

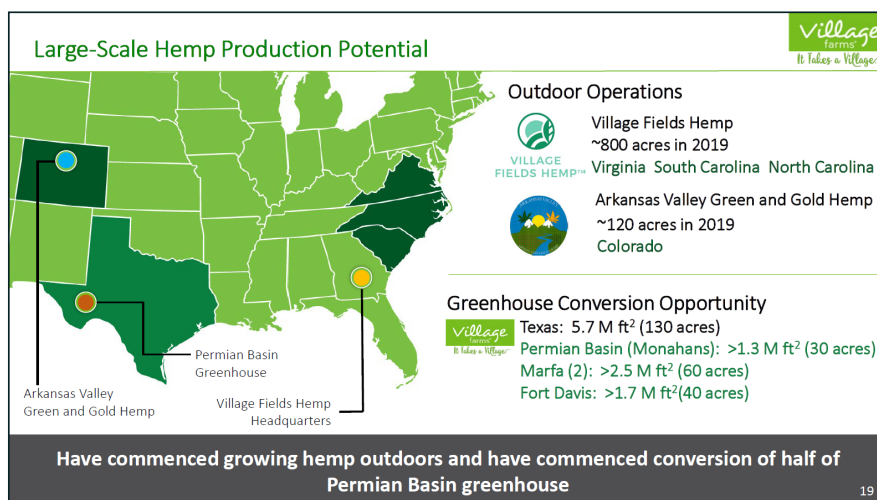
The company also participates in two joint ventures for hemp cultivation in the United States.

- **Village Fields Hemp:** VFF has a 65% ownership stake in the JV, which contracted for approximately 800 planted acres in total in North Carolina, South Carolina and Virginia.
- **Arkansas Valley Green and Gold Hemp:** VFF has a 63.3% ownership stake in the JV, which contracted for roughly 120 planted acres in Colorado.

On VFF's third-quarter 2019 conference call, management said: "We've just completed harvesting in full of 625 acres, average yield of these 625 acres was 1,600 pounds per acre of separated material.

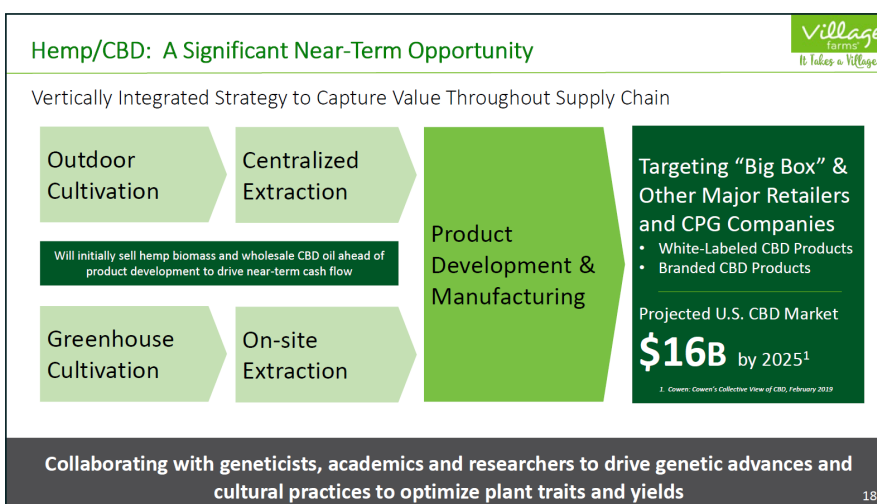
That is milled flower that has been separated from the stalks. This was well in excess of our projections, resulting in a total of approximately 1 million total pounds of separated material."

The company has the opportunity to convert four Texas-based cultivation facilities (located in Monahans, Marfa and Fort Davis), totaling about 130 acres, to hemp production. VFF has already started to convert a portion of its 1.1 million square foot Permian Basin facility for hemp cultivation.



Management sees the near-term opportunity in hemp and CBD as first to grow and sell biomass to create cash flow (activities on the left-hand side of the slide below), then to invest in product development and, ultimately, to launch in-house developed products and target major retailers for distribution (activities on the right-hand side of the slide below).

Through its decades of selling produce in North America, Village Farms has deep, existing relationships with major retailers, big-box stores and CPG companies that it will leverage in its hemp and CBD venture.





## EARNINGS SEGMENTS

When Village Farms presents its consolidated financials, the revenue and operating expenses reflect just the produce business. Joint venture results flow through the income statement as a share of income or loss from joint ventures. If VFF presented only consolidated financials, we wouldn't be able to separate financial performance of the produce, marijuana and hemp/CBD segments.

Village Farms does, however, present a reconciliation of IFRS to proportionate results for three segments: produce, the Pure Sunfarms joint venture and its hemp joint ventures. That information allows us to understand the sales growth, expenses, profit margins, net income and earnings per share for each of the segments.

### Produce

As VFF transitions a portion of its company-owned facilities from produce to marijuana and hemp, the company expects to rely more on third-party suppliers to grow the produce it supplies to customers.

In the transition period, profit margins have compressed, and the segment has gone from positive to negative net income. In the next few years, as VFF works through short-term production issues and the transition of using partner growers for lower-margin produce, the segment likely will return to positive profit margins.

VFF's 2017 segment results serve as a good proxy for the margin and earnings potential of the produce segment once the short-term production challenges are corrected.

PRODUCE	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19
<b>Revenue</b>	<b>36,864</b>	<b>158,406</b>	<b>29,490</b>	<b>42,039</b>	<b>39,684</b>	<b>38,787</b>	<b>150,000</b>	<b>31,890</b>	<b>41,329</b>	<b>38,293</b>
Cost of Sales	(31,908)	(144,433)	(25,902)	(41,150)	(36,862)	(36,367)	(140,282)	(31,582)	(44,263)	(38,866)
SG&A	(4,019)	(13,894)	(3,475)	(3,688)	(3,442)	(3,622)	(14,108)	(5,432)	(3,918)	(3,739)
Stock Comp Expense	0	0	0	(138)	(190)	0	0	0	(912)	(868)
Change in Biologic Asset	1,082	265	(659)	856	(1,189)	158	(834)	(100)	630	(627)
(Provision) Recovery of Inc. Tax	321	138	(213)	589	712	(962)	(2,475)	2,731	3,160	1,421
<b>Net Income</b>	<b>(572)</b>	<b>4,077</b>	<b>(906)</b>	<b>(2,178)</b>	<b>(1,989)</b>	<b>(2,480)</b>	<b>(7,526)</b>	<b>3,350</b>	<b>(3,952)</b>	<b>(4,901)</b>
<b>EBITDA</b>	<b>2,720</b>	<b>7,456</b>	<b>2,030</b>	<b>(1,041)</b>	<b>1,145</b>	<b>623</b>	<b>2,767</b>	<b>(1,922)</b>	<b>(4,731)</b>	<b>(2,422)</b>
<b>EPS</b>	<b>(\$0.02)</b>	<b>\$0.10</b>	<b>(\$0.02)</b>	<b>(\$0.05)</b>	<b>(\$0.03)</b>	<b>(\$0.05)</b>	<b>(\$0.16)</b>	<b>\$0.07</b>	<b>(\$0.08)</b>	<b>(\$0.10)</b>

### Cannabis

With Delta 3 at full production of around 75,000 kilograms and Delta 2 poised to add another 75,000 kilograms of annual production in 2021, VFF likely will see contributions from its Pure Sunfarms joint venture ramp up significantly in the next couple of years. The largest swing factor for the cannabis segment is what happens with the Delta 1 facility.

If the joint venture options the production capacity, a majority but not all of the resulting earnings from the estimated 180,000 kilograms of annual production would accrue to VFF. However, if the joint venture doesn't option the Delta 1 facility and VFF uses it to produce cannabis, 100% of the resulting earnings will accrue to VFF.

Third-quarter revenue was impacted by roughly US\$5 million that did not get booked in the third quarter but will likely get booked in the fourth quarter. Operating expenses also reflect the seasonal impact of less natural daylight, which results in higher electricity costs for grow lighting.

CANNABIS	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19
<b>Revenue</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>95</b>	<b>1,803</b>	<b>1,897</b>	<b>5,400</b>	<b>12,122</b>	<b>9,042</b>
Cost of Sales	0	0	0	0	(72)	(529)	(595)	(1,909)	(1,978)	(2,845)
SG&A	(128)	348	(217)	(275)	(314)	(491)	(1,306)	(500)	(893)	(1,415)
Stock Comp Expense	0	0	0	0	0	0	0	0	0	0
Change in Biologic Asset	0	0	0	104	268	2,962	3,386	3,052	7,348	(4,765)
(Provision) Recovery of Inc. Tax	(93)	94	0	0	0	887	887	1,770	(2,480)	(794)
<b>Net Income</b>	<b>(35)</b>	<b>(255)</b>	<b>(237)</b>	<b>(104)</b>	<b>(28)</b>	<b>2,750</b>	<b>2,381</b>	<b>4,298</b>	<b>13,962</b>	<b>(918)</b>
<b>EBITDA</b>	<b>(129)</b>	<b>(93)</b>	<b>(217)</b>	<b>(275)</b>	<b>(248)</b>	<b>861</b>	<b>111</b>	<b>3,201</b>	<b>9,447</b>	<b>5,033</b>
<b>EPS</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>(\$0.01)</b>	<b>\$0.00</b>	<b>(\$0.01)</b>	<b>\$0.06</b>	<b>\$0.05</b>	<b>\$0.08</b>	<b>\$0.28</b>	<b>(\$0.02)</b>

### Hemp

3Q19 was the first quarter that VFF's hemp joint ventures harvested product. The operations combined to harvest 625 acres with a yield of 1,600 pounds per acre. Plans for the JV are to sell the first crop for biomass. Future plans call for selling oil extract around the end of the second quarter 2020. After that, the joint ventures plan to become full vertically integrated operations that will grow and process hemp to manufacture and sell their own CBD, targeted by the end of 2020.

HEMP	4Q17	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19
<b>Revenue</b>									<b>0</b>	<b>0</b>
Cost of Sales									0	0
SG&A									(119)	(222)
Stock Comp Expense									0	0
Change in Biologic Asset									0	1,336
(Provision) Recovery of Inc. Tax									49	(268)
<b>Net Income</b>									<b>(121)</b>	<b>747</b>
<b>EBITDA</b>									<b>(123)</b>	<b>(227)</b>
<b>EPS</b>									<b>\$0.00</b>	<b>\$0.01</b>