

Fundamental Research Corp.

Investment Analysis for Intelligent Investors

November 1, 2016

Clean Seed Capital Group Ltd. (TSXV: CSX) – Initiating Coverage – Potential to Revolutionize Seeding and Planting Globally

Sector/Industry: Agricultural and Farm Machinery

www.cleanseedcapital.com

Market Data (as of November 1, 2016)

Current Price	C\$0.35
Fair Value	C\$1.90
Rating*	BUY
Risk*	4 (Speculative)
52 Week Range	C\$0.31 – C\$0.75
Shares O/S	43,968,234
Market Cap	C\$15.39 mm
Current Yield	N/A
P/E (forward)	N/A
P/B	1.9x
YoY Return	-30.0%
YoY OTCQX	42.6%

*see back of report for rating and risk definitions



Highlights

- Clean Seed Capital Group Ltd. (“company”, “Clean Seed”, “CSX”) has developed a group of patented and patent pending smart seeding and planting technologies that, we believe, has the potential to revolutionize how farmers conduct seeding and planting operations globally.
- Growing demand for food and declining arable land in the world are increasing the importance of enhancing agricultural productivity. Clean Seed is focusing on a segment that has lacked modernization and technological advancements.
- The company commercialized its flagship product this year – a 60 foot wide wireless seeding machine named CX-6 Smart Seeder. Initial sales totaled \$1.05 million. The CX-6 Smart Seeder is considered to be the world’s most advanced seeding technology.
- We estimate that a 10% market share in the seeding belt of the U.S. and Canada alone reflects potential for annual revenues of \$180 million from the CX-6 Smart Seeder product line. The company has plans to grow globally and use its patented, and patent pending technology, to enter other segments of the agricultural industry, including the planting equipment market.
- Distribution and manufacturing agreements with reputable third-parties in place.
- CSX’s management team consists of individuals with extensive experience in farming and heavy equipment sales. Research and development (“R&D”) and technological innovations are their primary focus.
- We believe the company’s biggest upside comes from potential M&A activities and/or to attract one or more majors to license its technology, allowing for rapid global expansion.
- Relatively healthy balance sheet with no debt.
- We are initiating coverage on CSX with a BUY rating and a fair value estimate of \$1.90 per share.

Key Risks

- As the company recently transitioned from a R&D (research and development) company to commercialization, they do not have a track record of revenues or positive cash flows.
- Ability to ramp up sales and gain market traction.
- The seeding equipment market is competitive and dominated by larger players.
- Like any technology company, the company will always need to keep innovating and spend significant resources on R&D.
- Farm equipment sales are highly dependent on the overall health of the economy and are exposed to economic downturns.

Key Financial Data

(in C\$); YE - June 30

	2012	2013	2014	2015	2016	2017E	2018E
Revenues	-	-	-	-	1,050,000	2,750,000	5,750,000
Net Income	(1,300,147)	(1,033,810)	(1,248,778)	(1,247,357)	(1,212,419)	(875,059)	(745,307)
EPS (basic)	(0.07)	(0.05)	(0.04)	(0.04)	(0.03)	(0.02)	(0.02)
Cash	403,962	95,637	474,198	178,968	494,427	40,439	64,189
Total Debt	511,082	646,920	578,387	500,642	184,559	1,934,559	4,434,559
Debt / Capital	11.0%	14.7%	10.5%	8.2%	2.3%	20.8%	38.1%
Total Assets	4,796,257	4,627,589	5,761,929	6,540,794	8,522,685	9,858,458	12,370,651

**CSX 's
Proprietary
Technology
and the CX-6
Smart Seeder**

The traditional agricultural techniques of plowing and tilling to prepare land for sowing seeds typically results in soil erosion and a significant degradation of farm land quality, primarily due to depletion of carbon in the soil. These problems, which result in lower productivity and higher costs, prompted the emergence of growing crops without disturbing the soil through tillage; otherwise known as conservation tilling / no-till farming. No-till farming has been gaining popularity over the past two decades due to its ability to reduce soil erosion and enhance soil quality through conservation of moisture and organic matter produced from the decomposition of previous crop residue. Less tillage also implies significant cost reduction as plowing / tilling is not required, and fewer trips across the fields saves time and money (lower fuel, labor and machinery maintenance costs). **Currently, over 80% of the farms in Canada use no-till or reduced till equipment.**

CSX's Intellectual Property ("IP"), which consists of a group of patented and patent pending technologies focused on no-till planting / seeding, have the potential to replace the conventional seeding and planting technologies used by farmers, which have not evolved or modernized in recent decades.

Among the existing seeding systems, air seeders are the most commonly used. An air seeder typically has a centrally located hopper for seed and fertilizer, which are distributed through an air stream across the drill, and eventually to the seed bed. Openers, made in the shape of points, discs or cultivator shovels, push through the soil to make openings for the seeds to be placed. The grain and fertilizer are metered out from the hoppers in a ratio set by the operator. The entire system is towed behind a tractor. **Despite being widely used, air seeders are considered to have the following key issues:**

- Air distribution has shown to result in inaccurate product distribution across the drill and inside each furrow;
- Uneven distribution due to a lack of flexibility of traditional air seeders to distribute products (seeds and fertilizer) across the seed bed as per a farmer's requirements;
- Traditional air seeders have significant downtime to reload farming inputs; and
- Most seeders cannot distribute more than three farming inputs at a time

All of these issues are primarily driven by product (seeds and fertilizer) distribution, onto the seeder, and into the ground. Clean Seed's technology allows famers to conduct smart seeding by micromanaging inputs to improve yields and reduce costs. **The company's flagship product is a 60 ft wide system, named the CX-6 Smart Seeder (see images below) - which is considered to be the world's only smart seeder, and is positioned to replace air seeders and revolutionize how farmers conduct seeding and planting operations globally due to its level of precision.**

Images of the CX-6 Smart Seeder



Source: Company

The CX-6 Smart Seeder resolves all of the above mentioned limitations of air seeders, and integrates new value-added features, smart technology and intuitive user friendly controls. The following chart, prepared by the company, highlights the CX-6 seeder’s key competitive advantages:

	Air Seeders	CX-6 Smart Seeder
The ability to integrate agronomist prescriptions from soil maps into the operation of the Seeding equipment to allow for ideal input planting		X
The ability to both plant and refill products concurrently to virtually eliminate downtime significantly while enhancing input flexibility		X
Six product handling capability and capacity enabling agronomy possibilities never before available to the farmer with an air seeder		X
Harsh treatment of seeds and product inputs through sectional or whole seeder air systems which leads to damaged or defective inputs	X	
Optimal product placement from 1) a triple shoot opener allowing for ideal separation of fertilizer and seed 2) electronic sensing depth control		X
Wireless in cab controls to control the metering systems and product input blending		X
Ease of maintenance through a single row toolbar and plug and play metering system with reduced wiring and electrical connections		X
Ability to micromanage up to six products at each square foot of the field, across the field, to blend the right product mix in order to best match soil conditions		X
Overlap of product inputs is eliminated for non-linear travel through turn compensation and square foot seeding control		X
Uncontrollable distribution of inputs into the ground across the length or section of the Seeder as a result of metering prior to air distribution	X	

The company’s website has several videos clearly demonstrating the operations of a CX-6 seeder. We encourage interested investors to view those videos to get a better understanding. Additional details of the CX-6 are presented in the Appendix.

Patented technology

Clean Seed has seven patents in Canada, the U.S. and Mexico. In addition, the company has 17 patents pending related to the CX-6 and its underlying technology. The patents and patents pending cover the following key features:

- variable ratio blending of agriculture products directly over every opener
- control of product flow to variable ratio blending
- metering device
- triple shoot opener

The 17 patents pending relate to variable ratio blending and control of product flow. These will provide the company with IP protection until 2033 and 2036, respectively. According to management, the variable ratio patent is pending in every country where a significant amount of seeding equipment is used. Management states that no patents or prior publications are cited against their CX-6 technology.

From our discussions, Clean Seed’s management is confident that competitors will not be able to achieve the same level of precision seeding and planting without infringing CSX’s IP portfolio.

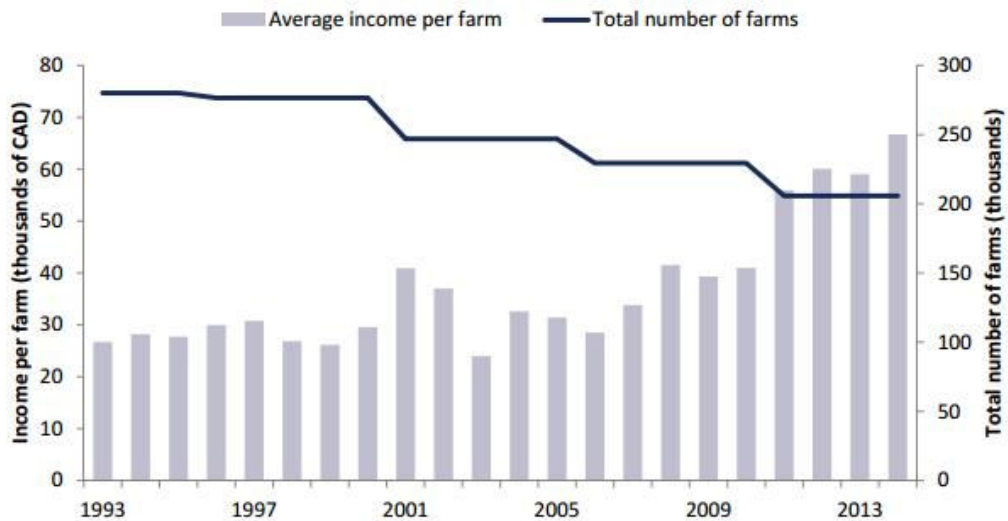
Recognition

The CX-6 was awarded the People’s Choice Innovation Award at the Farm Progress Show for two consecutive years (2013 and 2014), the largest agricultural trade show in Canada. The chart below shows the various awards received by the company, which we believe is a major vote of confidence for the company’s technology from its potential users:



Source: Company

Management estimates that their seeder has the potential to increase a farm’s net income by up to \$100 per acre through higher yields and lower input costs. This is a very significant increase considering that the average farm in Canada (778 acres) generates approximately \$67k a year of income (see chart below), or \$86 per acre.



Source: FCC

The CX-6 product is estimated to be priced at approximately \$0.75 million retail (fully loaded), which is in line with existing air seeders. The potential improvement in net income of \$100 per acre indicates that a 5,000 acre farm adopting the CX-6 Smart Seeder will have a payback period of under 1.5 years as compared to their existing Air Seeder.

Management’s initial focus is on Prairie farms (Western Canada and the Northern U.S.). **Prairie based farmers own 40% of CSX’s shares, which we believe is another strong**

endorsement for the company’s technology.

Air seeders are typically used by farms of 1,500+ acres. Clean Seed’s management estimates that there are approximately 15,000 air seeders currently in use in the northern great plains area of Canada and the U.S. We believe this is a reasonable estimate considering that there are 205,730 farms just in Canada, of which 23,571 farms, we estimate, are over 1,500 acres.

Gross annual farm receipts (Canada)	2011	% of Total
Less than \$10,000	43,954	21.4%
\$10,000-\$24,999	32,853	16.0%
\$25,000-\$49,999	25,764	12.5%
\$50,000-\$99,999	25,455	12.4%
\$100,000-\$249,999	31,670	15.4%
\$250,000-\$499,999	22,455	10.9%
\$500,000-\$999,999	13,977	6.8%
\$1,000,000-\$1,999,999	6,304	3.1%
\$2,000,000 and over	3,298	1.6%
Total	205,730	100%

Source: Statistics Canada

As farmers tend to purchase a new system every 5 years, the average annual sale of seeders is estimated at 3,000 units. **A 10% market share, at an average unit price of \$0.75 million (\$0.60 million net to CSX), will result in annual revenues of \$180 million for Clean Seed.**

History of Clean Seed

Clean Seed Capital was incorporated in January 2010, and completed its Initial Public Offering (“IPO”) in September 2011 on the TSX Venture Exchange. Concurrent with the IPO, the company completed a \$2.01 million equity financing and acquired a related company, Vesco Agricultural Technologies Ltd., by issuing 10 million common shares. Clean Seed began trading under the symbol CSX on the TSX Venture Exchange on September 28, 2011. **The company was a TSX Venture 50 Company (top performers on the exchange) in both 2013 and 2014.**

Vesco, incorporated in May 2007, was owned 98.93% by Marvelle Capital, which is a private company, primarily owned and managed by Graeme Lempriere. Subsequent to the transaction, Mr. Lempriere became the CEO and Director of CSX.

Vesco held the IP rights to a no-till planting / seeding system (known as the Terra-Glide technology) invented by the father of Graeme Lempriere, Dr. Lempriere, who had been developing agricultural technologies since the 1980s.

After going public in 2011, the company **came out with their first product in 2012** – which is a 5 feet wide seeder (named ‘Dart’) targeting small-scale farmers (image below). The company initially decided to focus on Africa (particularly Ghana) to commercialize the newly developed product considering the significantly low productivity in farming in the region due to the use of traditional and un-mechanized agriculture techniques. The World Bank had recently announced its plan to allocate \$150 million of its budget to modernize and mechanize agriculture in the country. However, after considerable evaluation and the potential risk of starting business on a new continent, management decided to shift their focus back to home base – North America.

The Dart: 5 ft compact no-till drill



Source: Company

In May 2012, independent tests conducted by the UBC Centre for Sustainable Food Systems showed that the company’s technology performed exceptionally well across all soil and crop conditions, and produced a very low percentage (2%) of soil disturbance planting.

In October 2012, the company **hired Colin Rosengren as VP – Product Development**, a third generation no-till commercial farmer in Saskatchewan with extensive background in the space, and significantly strengthened the team. Mr. Rosengren has played a key role in the development of the CX-6 system, and is a significant shareholder and director of the company.

By 2013, the company completed the development of their second and third products – which are larger 8 ft and 12ft wide systems, respectively. CSX incorporated their proprietary electronic systems into these units and received recognition from the industry as the first ever wireless seeding technology.

The Arrow: 8 ft compact no-till drill



The Javelin: 12 ft precision no-till drill



Source: Company

In April 2014, Clean Seed added Colin Rush as a board member. Colin Rush came with a 20 year background in the agricultural equipment industry, including sales and operations positions with majors such as John Deere, Case IH, and JCB. His addition was very timely and significant for the company as the company was transitioning from an R&D (research and development) company to commercialization. Mr. Rush, who is also a shareholder, is expected to join the company full-time as the Chief Operating Officer in early 2017.

In 2013 / 2014, the company revealed the principals behind the CX-6 Smart Seeder at the Farm Progress Show, which as mentioned earlier, is the largest agricultural trade show in

Canada.



Source: Company

Manufacturing and Distribution Agreement

Clean Seed entered into production and distribution agreements with reputable third-parties in 2015, and commenced the commercial production process of the CX-6 in 2016.

- In April 2015, Clean Seed entered into a **manufacturing agreement** with WS Steel Ltd. Founded in 1989, WS Steel is a Manitoba based Tier 1 original equipment manufacturer (OEM) for a wide range of industries with a special focus on the agricultural industry. The initial term of the agreement is for WS Steel to manufacture the first 100 CX-6 units over a three year period. According to management, WS Steel currently has a capacity to produce 75 units per year, with a potential to expand to 125 units per year with basic expansion. Note that WS Steel has invested over \$1 million towards product development and the upfront capital cost to prepare and customize their facilities to manufacture the CX-6, in return for a guarantee from Clean Seed to award them a contract for the first 100 units of the CX-6.
- In May 2015, the company signed a **distribution agreement** with Rocky Mountain Dealerships Inc., one of the leading agriculture and construction equipment dealerships in the country. Rocky Mountain will manage exclusive sales areas in Alberta, Manitoba and certain locations in Saskatchewan with agreed upon sales commitments over a three year renewable period. Rocky Mountain will market the product at all 33 of its agricultural retail locations in Western Canada starting in 2017.

Initially outsourcing manufacturing and distribution, we believe, will allow the

company to remain focused on technological innovations, and expand globally with its products. The other advantages of initially outsourcing these divisions are that the company does not have any type of significant capital investment (to setup the manufacturing facilities) or marketing expenses. RME will be responsible for all marketing activities and promotion. Therefore, the company will not have any significant costs other than the manufacturing expenses paid to WS Steel. RME purchased two CX-6 units from the company for use in demonstrations to generate sales interest.

The company has been conducting demonstrations in the summer including live seeding and operational demonstrations at agriculture shows / events. Management intends to negotiate distribution agreements with other dealers to expand its distribution in to the U.S. and the rest of Canada by early 2017.



Source: Company

A total of three CX-6 units have been produced so far and more are under development. In 2016, the company sold two units for a total of \$1.05 million (\$525k each) to RME. RME is expected to mark up the price by approximately 25% prior to selling the units. According to management, WS Steel currently takes approximately 30 days to manufacture a unit, with a capacity to manufacture 75 to 125 units per year once the company begins a full production line. Our discussions with management indicated that, as per the agreement with WS Steel, the company needs to make a 30% deposit (approximately \$150k) to initiate the production of a unit.

Management estimates gross margins to be approximately 40% once in full volume production. To put things in perspective, consumers pay \$0.75 million per unit to RME, of which, approximately \$0.60 million is passed on to CSX. CSX pays approximately \$0.36

million to WS Steel, leaving a gross profit of \$0.24 million per unit. According to S&P Capital IQ, the Agricultural and Farm Machinery industry average gross margin is approximately 27.7%. The higher estimated gross margins for CSX, we believe, offer the company flexibility to lower the current sale price of \$0.75 million and gain market share.

The Farm Credit Canada (“FCC”), the largest agricultural lender in Canada, offers attractive loan options to farmers, allowing them to purchase large equipment outright. Therefore, the company has not planned any financing options for farmers at the moment.

Our discussions with management indicated that they expect a stream of annual recurring revenues through annual replacement parts and software licensing fees for upgrades, which they expect to be 6% of the total revenues going forward.

After gaining traction with the CX-6 Smart Seeder, Clean Seed management’s strategy is to start marketing its other products (Dart, Arrow and Javelin) to smaller-scale farmers and subsequently grow internationally. The company also intends to expand its product line through additional technological innovations.

The company intends to target the following other segments for expansion:

- **Smart planter systems** - CSX’s R&D team is working on synergistic designs of their metering and opener to adapt to singulation, and target planters in the U.S. In the U.S., corn and bean seeds are sowed by individual seeds (which require singulation as the meter takes one seed at a time and plants it at even spacing), while in Canada they are sowed by weight (pounds). Management estimates that the annual sales of the planter equipment are approximately 7,000 units (90% in the U.S.) in the U.S. and Canada. **At an average unit price of US\$175k, this market is estimated to be US\$1.23 billion in the U.S. and Canada.** John Deere (NYSE: DE) dominates this space with approximately 50% of the market share. Clean Seed intends to enter this sector in 2017 with additional proprietary technologies the company has been working on.
- **Retrofit market** - There is a significant opportunity for the company to retro-fit its proprietary openers / opener assemblies and metering to existing seeder systems. This option offers farmers an opportunity to improve the functionality of their existing seeders at a significantly lower cost. Management estimates that there are over 1.50 million no-till openers currently in use in the Midwestern U.S. states. John Deere dominates this space with about 60% - 70% of the market share.

The seeding equipment market is highly competitive. Manufacturers range from large multinational companies to smaller private companies. Currently, the seeding market is dominated by a Saskatchewan based private manufacturer, Bourgault Industries Ltd (35 – 40% market share), followed by the large multinationals such as Deere & Company (sold under the John Deere brand) and CNH Industrial (sold under the Case IH and New Holland brands). Deere & Company (NYSE: DE; market cap – US\$26 billion) is the largest player in the space. Headquartered in Illinois, U.S., Deere & Company was the first major company to introduce reduced till and no-till equipment to the market. The following table shows a

Longer Term Opportunities

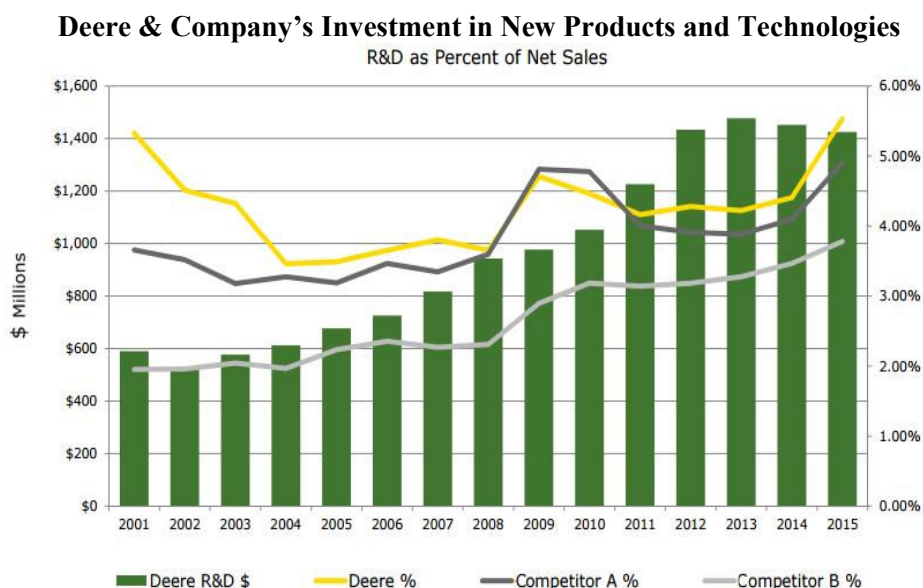
Market Competition and Licensing Opportunities

snapshot of Deere & Company and CNH Industrial's financials.

	Deere & Co.	CNH Industrial
Ticker	NYSE: DE	NYSE: CNH
Market Cap (US\$, bn)	\$26.11	\$9.82
EV (US\$, bn)	\$59.54	\$31.91
Revenues	\$26.72	\$25.61
Gross Margin	22.90%	17.50%
Net Income	\$1.59	-\$0.38
Enterprise Value ("EV")/ Revenue	2.2	1.2
EV / EBITDA	16	13.8
P / E	16.5	n/a
Debt/Capital	83.30%	79.70%

Source: FRC and S&P Capital IQ

The agricultural machinery industry has experienced significant M&A activities in the past few years primarily because of larger companies' tendency to grow through acquisitions. The following chart shows Deere & Company's investment in new products and technologies, which grew from approximately US\$600 million in 2001, to over US\$1.40 billion by 2015.



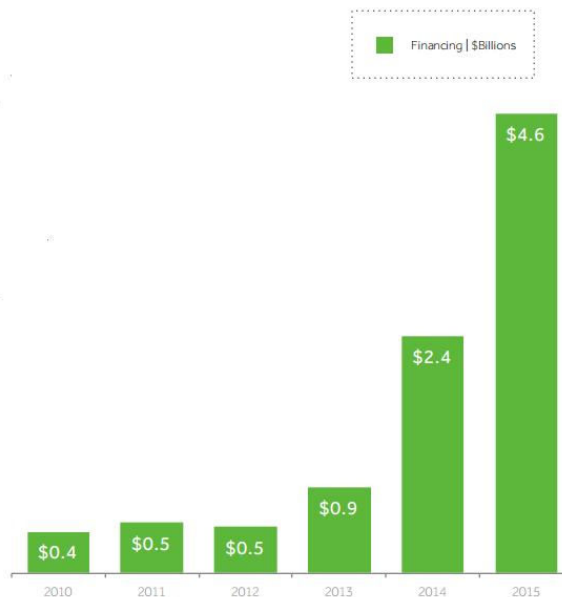
Source: Deere & Company

The following were the key industry acquisitions in recent years:

- In May 2016 **Japanese tractor company, Kubota, acquired U.S. based equipment manufacturer, Great Plains Manufacturing, Inc.**, for approximately US\$430 million. Great Plains primarily manufactures seedbed preparation, nutrient application, and seed placement equipment.
- In November 2015, **Deere & Company acquired Monosem** (founded in 1948), a leading player of precision planters in Europe, for US\$146 million.
- In the same month, **Deere & Company announced their intent to acquire Monsanto Company’s (NYSE: MON) Precision Planting equipment business** for US\$190 million. However, the transaction has been under scrutiny by the regulators as these two entities combined hold a significant share of the U.S. market. Deere & Company was sued by U.S. antitrust officials in August 2016.
- In December 2014, **CNH Industrial** completed the acquisition of precision spraying equipment manufacturer Miller-St. Nazianz, Inc. for US\$106 million.
- In 2013, **Väderstad, a Swedish agricultural equipment manufacturer,** acquired precision seeding systems company, Seed Hawk, for an undisclosed amount. Seed Hawk had annual revenues of \$70 million.

According to the AgTech Investing Report 2015, approximately US\$4.6 billion was raised by 499 startup companies in the agriculture sector in 2015, up by 92% YOY from 2014’s US\$2.36 billion.

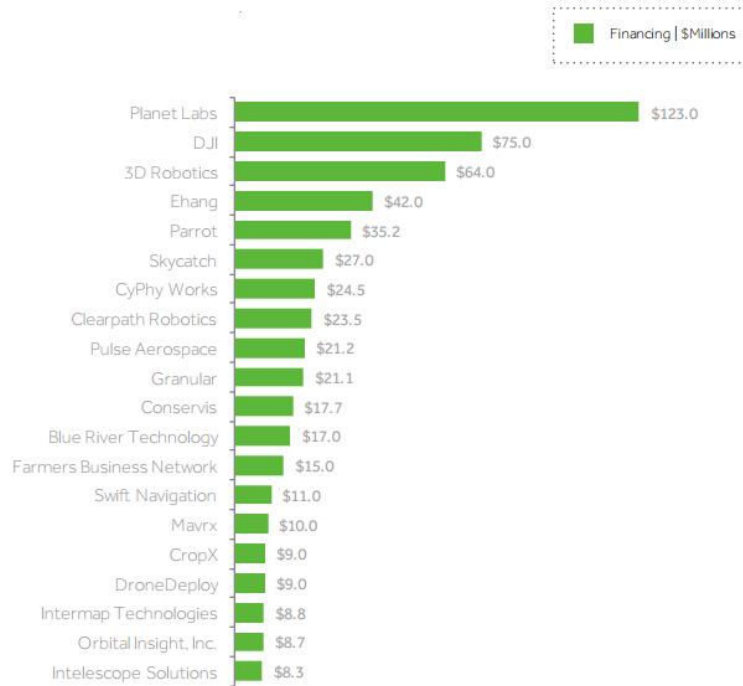
Annual Financings (US\$)



Source: AgTech Investing Report 2015

Companies in the U.S. accounted for 58% of the total deal flow in 2015, followed by India at 12%, and Canada at 5%. **Of specific relevance to Clean Seed is that 84 precision agriculture companies raised \$661 million (up by 140% YOY) across 96 deals.** The following chart shows the top 20 deals in the Precision Ag space:

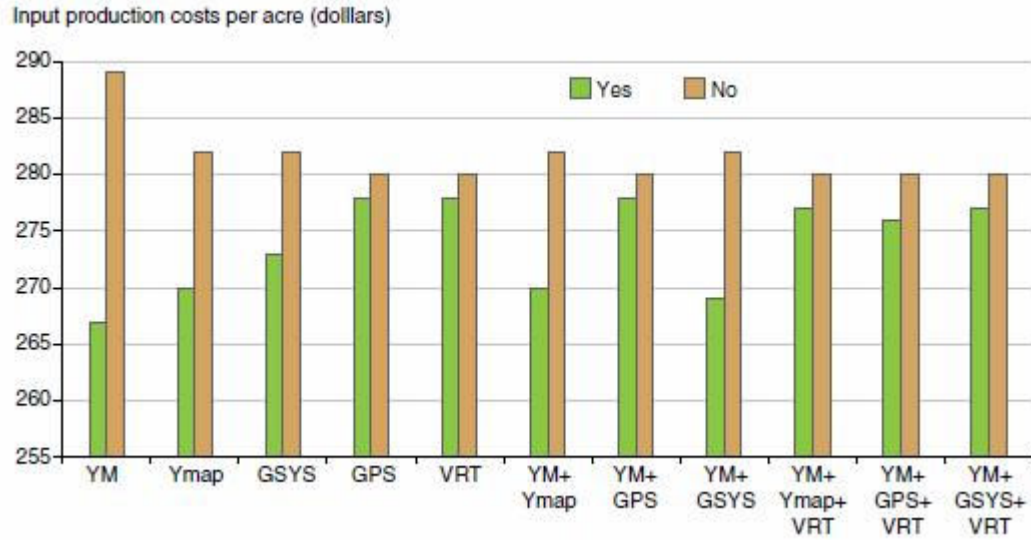
Precision Agriculture: Top 20 Deals (US\$)



Source: *AgTech Investing Report 2015*

In a study conducted by the United States Department of Agriculture (USDA), the operating profits of farms adopting precision agriculture technologies in the U.S. was US\$66 per acre higher on average compared to non-adopters.

Input costs with and without PA technologies



Source: USDA

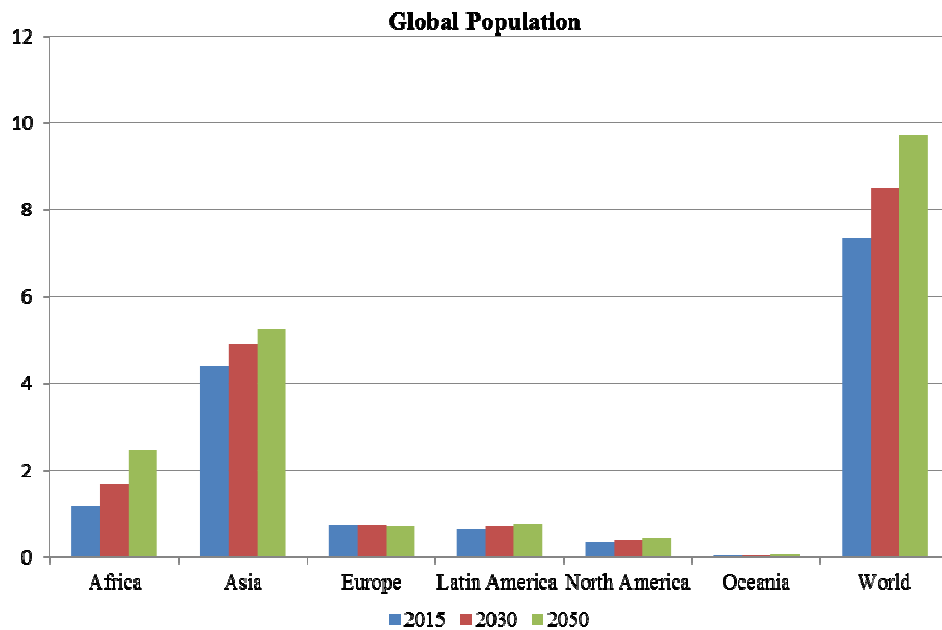
According to a MarketsandMarkets report, the global precision farming market is expected to grow at 11.7% p.a. from 2015 to reach US\$4.80 billion by 2020.

We believe Clean Seed’s technology will be highly attractive for the majors once sales ramp up and the market gets to see users’ feedback on the CX-6 Smart Seeder. Clean Seed management’s strategy is to potentially license one or more of its technologies to the majors, such as Deere & Company, Case IH, Bourgault Industries, etc. A licensing deal will take the company’s IP to a global stage and allow for rapid expansion.

The following section highlights the need for technological innovations in the agriculture industry, and how we believe Clean Seed will be able to gain acceptance.

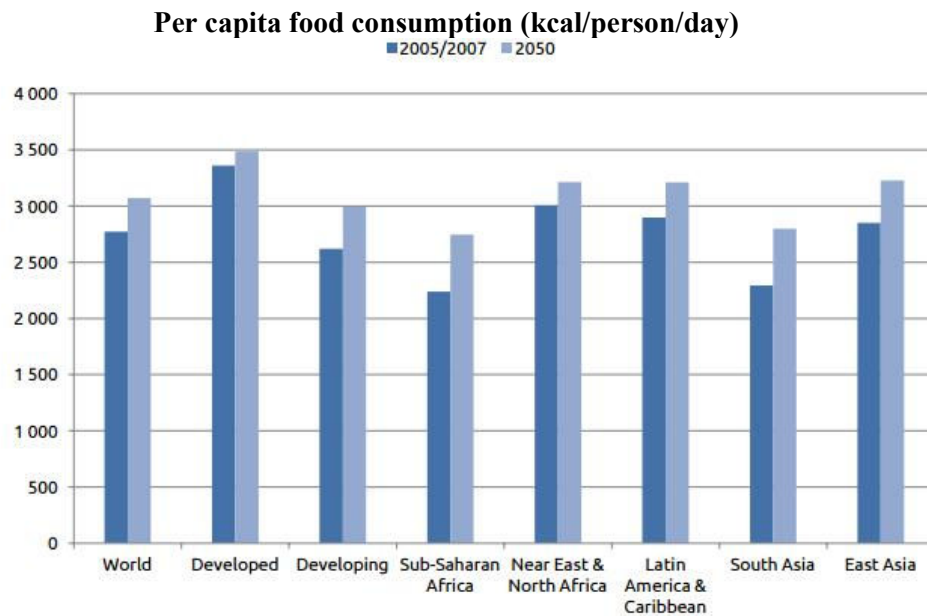
According to the United Nations, the global population, which was 7.3 billion in 2015, is estimated to reach 9.7 billion by 2050, reflecting a 0.82% p.a. CAGR (compounded annual growth rate). The North American population is expected to grow at a CAGR of 0.51% p.a., from 0.36 billion to 0.43 billion (see chart below).

Growing demand for food calling for increase in agricultural productivity



Source: United Nations

Food consumption per capita is also expected to increase, as shown in the chart below.

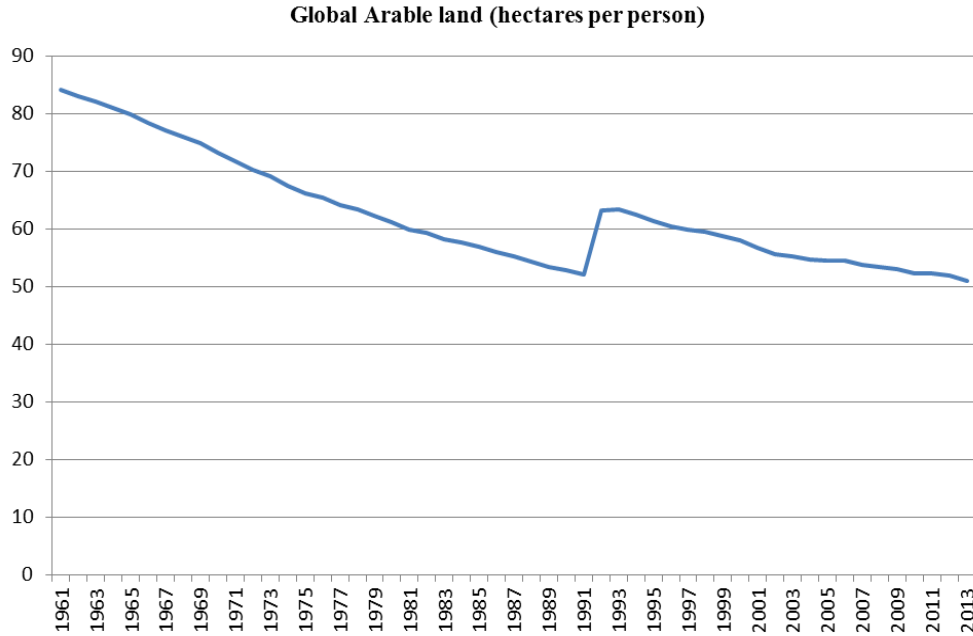


Source: Agricultural Development Economics Division

Based on the above, the FAO (The Food and Agriculture Organization of the United Nations) estimates that **food production will need to increase by 70% globally**, and 100% in the developing world, to meet demand by 2050.

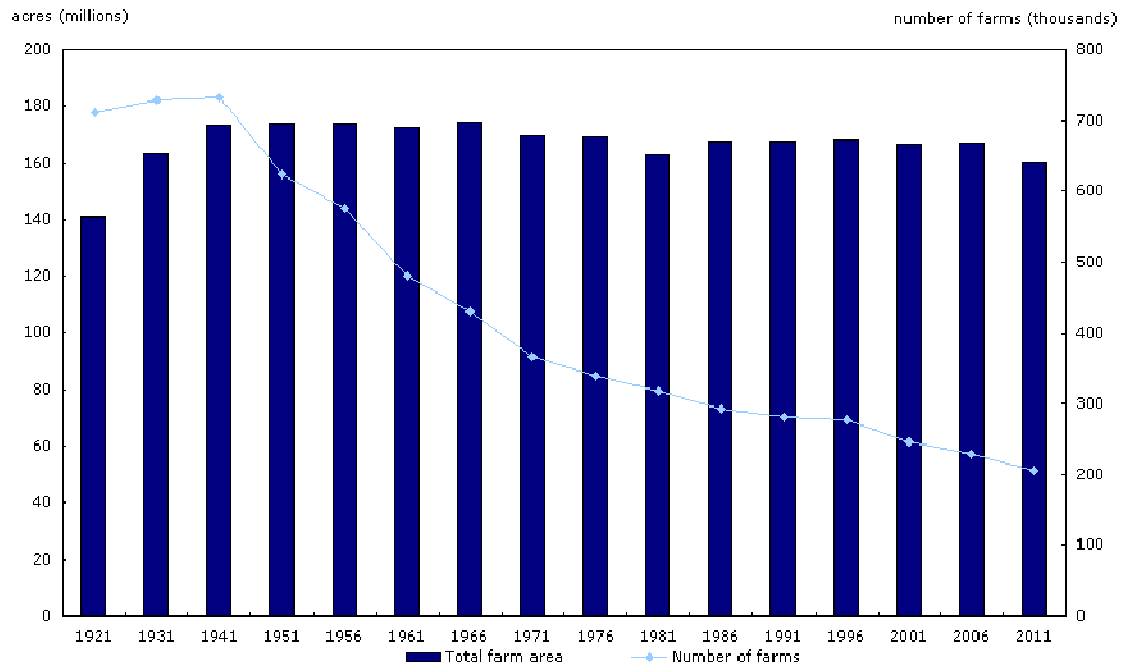
The two key solutions to increase food production are to increase the amount of agricultural

land, and enhance productivity on agricultural lands. However, **global arable land has been decreasing over the past several decades**, as shown in the chart below. From 1961 to 2013, global arable land per person declined by 39% from 84 hectares to 51 hectares.



Source: World Bank Group

The following chart shows the total farmland area, and the number of farms in Canada, based on the 2011 Census of Agriculture; the most recent measure of the Canadian agriculture. **The total farmland area has remained relatively flat in the past several decades.**



Source: Statistics Canada, Census of Agriculture, 1921 to 2011

The following table shows the decline in farmland area in the top three provinces in Canada – Saskatchewan, Alberta and Manitoba – these three provinces accounted for 81% of Canada’s farmland area, as of 2011. The average size per farm was 1,324 acres in these provinces (1,668 acres in SK), well above the national average of 778 acres.

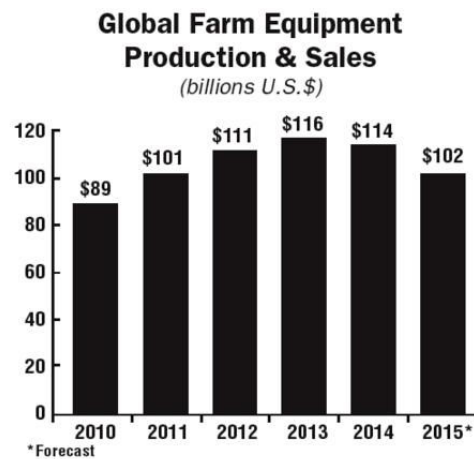
	1986	1991	1996	2001	2006	2011	% Change (1986 - 2011)
Canada							
# of Farms	293,089	280,043	276,548	246,923	229,373	205,730	
Farm area (acres)	167,600,837	167,422,780	168,167,199	166,801,919	167,010,211	160,155,479	-4.4%
Average Farm (acre)	572	598	608	676	728	778	
Saskatchewan							
# of Farms	63,431	60,840	56,995	50,598	44,329	36,952	
Farm area (acres)	65,728,334	66,385,964	65,653,481	64,903,722	64,253,737	61,628,148	-6.2%
Average Farm (acre)	1,036	1,091	1,152	1,283	1,449	1,668	
Alberta							
# of Farms	57,777	57,245	59,007	53,652	49,431	43,234	
Farm area (acres)	51,040,378	51,425,026	51,964,274	52,058,811	52,127,771	50,498,834	-1.1%
Average Farm (acre)	883	898	881	970	1,055	1,168	
Manitoba							
# of Farms	27,336	25,706	24,383	21,071	19,054	15,877	
Farm area (acres)	19,126,485	19,088,837	19,106,500	18,784,376	19,072,972	18,023,472	-5.8%
Average Farm (acre)	700	743	784	891	1,001	1,135	

Source: Statistics Canada

Farm Equipment Market

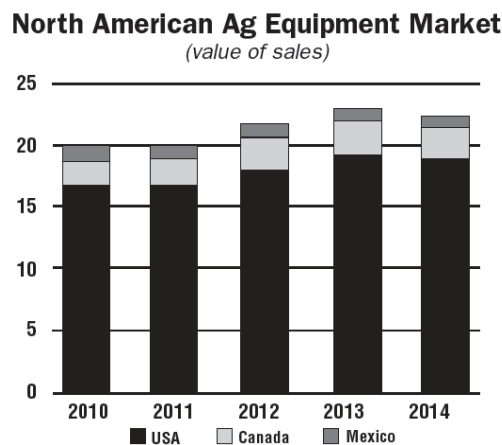
The decline in arable land indicates that productivity in agriculture has to significantly increase from current levels to meet global food demand. The World Bank has been showing strong commitments to agricultural innovations that can boost productivity. Despite this, certain critical segments of agriculture have lagged behind in modernization and technological advancements. Technology is now playing a key role in almost every industry, and has been changing how business is conducted in those industries. Based on the above, we believe that Clean Seed’s technological innovation will be able to gain traction in the industry.

German engineering association, VDMA, estimates that the global farm equipment sales hit US\$102 billion in 2015. Although sales dropped by 11% YOY in 2015, they were up from US\$89 billion five years ago, reflecting a CAGR of 2.8% p.a.



Source: VDMA

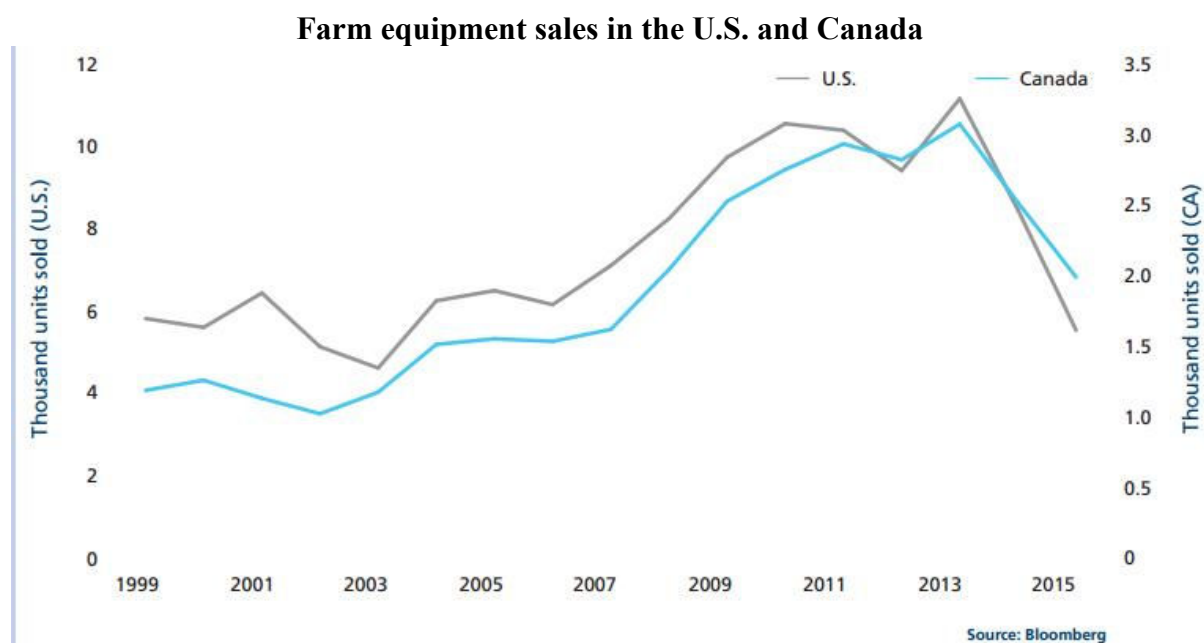
North America accounted for 22% of the total market. The following chart shows North American equipment sales.



VDMA estimates that North American manufacturers accounted for \$26 billion of the total \$114 billion market in 2014.

Source:VDMA

The two primary reasons for the weakness in sales in 2015, and 2016, are the strong US\$ and the weak commodity prices. The following chart shows the decline in sales in Canada and the U.S.



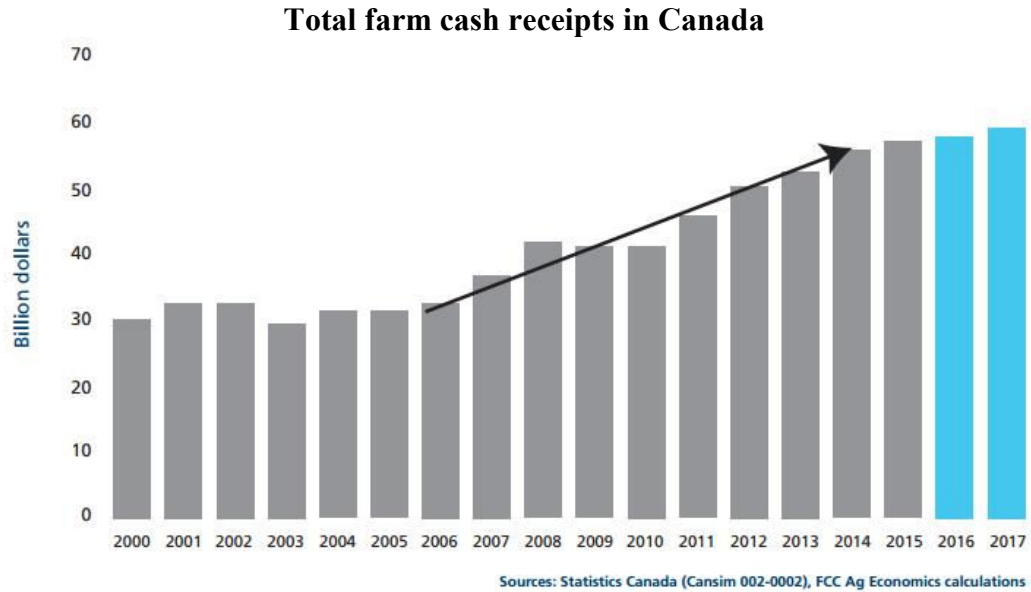
Source: Farm Credit Canada

Farm Credit Canada (“FCC”) expects farm equipment sales to decline in 2016 as well due to continued strength in the US\$ and weakness in commodity prices.

The following table shows the revenues and operating profit of Deere & Company and CNH’s agriculture business. Both companies experienced a significant decline in revenues and operating profit in 2014 and 2015.

Deere & Company	2013	2014	2015
Agriculture and Turf Business			
Net Sales (US\$, bn)	\$29.13	\$26.38	\$19.81
YOY Change		-9%	-25%
Operating Profit (US\$, bn)	\$4.68	\$3.65	\$1.65
Operatin Margin	16.1%	13.8%	8.3%
CNH Industrial N.V.	2013	2014	2015
Agricultural Equipment			
Net Sales (US\$, bn)	\$16.67	\$15.20	\$11.03
YOY Change		-9%	-27%
Operating Profit (US\$, bn)	\$1.95	\$1.69	\$0.70
Operatin Margin	11.7%	11.1%	6.4%

Equipment sales are dependent on farm cash receipts. Total farm cash receipts grew by 72% from 2006 to 2014, and are projected to increase by 5.8% in 2016, and 3.8% in 2017, based on higher commodity prices.



Source: Farm Credit Canada

Despite the industry weakness, FCC estimates the sector will rebound in 2017 based on growth in farm cash receipts. The following chart shows their estimates for Canada.



Source: Farm Credit Canada

Management

We believe the expected recovery in the market is highly encouraging for Clean Seed as the company prepares for its first full year of sales in 2017. Also, the CX-6's advantages and potential to improve farmers' profitability give Clean Seed a significant edge over its competitors.

Clean Seed's management team consists of individuals with extensive experience in farming and heavy equipment sales. The company's R&D team is strong with highly qualified individuals.

CSX currently has 14 employees and intends to expand the team in 2017. According to management, WS steel employs 160 people dedicated to the production of the CX-6.

Management and board own 27% of the total outstanding shares. **Prairie based farmers own another 40% of the shares, which we believe shows their vote of confidence in the company's technology.** CEO Graeme Lempriere has invested approximately \$3 million in the company since inception, which we believe is a strong indication of his conviction on the company's business model.

The board has eight directors, three members are independent. The following are brief biographies of key management team and board members, as provided by the company.

Graeme Lempriere, CEO, President & Director

Graeme Lempriere is a corporate and financial entrepreneur with decades of senior management experience in both public and private business development. His primary focus for the past 10 years has targeted the agricultural sector, a family passion lead by his father since the 80s. In 2006, Graeme founded Clean Seed Agricultural Technologies Inc. and secured the worldwide exclusive rights to a unique patented no-till seeding technology. Graeme built a team of cutting edge technology experts and senior management personnel with decades of experience in the agricultural sector and listed Clean Seed on the TSX Venture Exchange. The company has raised in excess of \$10 million and has developed and launched a widely recognized group of technologies that have been documented in the industry as an innovative leap forward for the seeding and planting sectors.

Colin Rush, Independent Director / Expected to be named the COO in January 2017

Colin Rush is a senior business sales and operations leader with 20 years of experience in the agricultural equipment industry in North America. Colin's background includes senior sales and operations positions with John Deere, Case IH and JCB Canada. In 2010 Colin assumed the North American role of Senior Director of Specialty Business for Case IH significantly expanding North American sales and market share for the Company's planting, seeding, tillage, and application products. Prior to joining Case, Colin was a partner in Cervus GP, the general partner of Cervus LP; a publicly traded income trust that owned and operated 25 John Deere dealerships in Western Canada. Colin holds a Bachelor of Science in Mechanized Agriculture from the University of Saskatchewan, as well as an MBA from the University of Guelph in Agricultural Economics. Colin holds a wealth of experience and knowledge of agricultural equipment distribution and sales throughout North America as well as an extensive network throughout the industry.

Colin Rosengren, VP, Product Development & Director

Colin Rosengren is a Canadian third generation commercial farmer specializing in zero-tillage and intercropping. Using zero-tillage, crop nutrition plans and an integrated pest management approach, Colin farms in the most environmentally friendly and sustainable way possible, fixing carbon, improving soil productivity, and increasing biodiversity and biological activity in the soils. Colin operates his 5,000 SQF farm in South East Saskatchewan. Colin is also one of the founding members of The Three Farmers, a group of Saskatchewan farmers passionate about growing natural and healthy foods that have created their own product lines from the crops they grow. Colin is also a respected speaker in modern agriculture practices, provides agronomy consulting services and has a Bachelor of Science in Mechanized Agriculture from the University of Saskatchewan.

Noel Lempriere, VP, Marketing

Noel Lempriere is a marketing, project and personnel management professional with over 18 years of experience in a variety of sectors that include Lean Manufacturing & Distribution, Food & Wine, Agriculture and Major Events. Prior to joining the Clean Seed team, Noel applied his focus as senior partner/management in the sustainable source manufacturing sector, overseeing branding, marketing and product distribution to networks and commercial development projects across Western Canada and the United States. Noel played an advisory role to the board, addressed early marketing challenges and worked with local city, municipal and international officials to successfully brand and oversee the launch of the 2010 World Masters Championships, an international sporting event gathering athletes, teams and spectators from around the world. Noel has worked directly with the CEO on a variety of business opportunities and business development projects including Clean Seed.

Steven Brassard, CA, Chief Financial Officer

Steven Brassard is a Chartered Professional Accountant with a Master Degree in Professional Accounting. Prior to joining Clean Seed, Steven provided an array of services to public and private enterprises in all areas relating to finance including enhancing their internal controls, developing financial and accounting systems, financial reporting services, corporate services, corporate governance practices and, where applicable, regulatory compliance. Steven became proficient in the operations of growing enterprises through hands on experience in the green energy and hospitality industries. Graduating from BCIT with a Bachelors of Accounting, Steven worked at a regional, Vancouver based firm to obtain his Chartered Professional Accountant Designation. Steven is a member of the Chartered Director Program at the Directors College.

Steve Larocque, Agricultural & Agronomic Advisor, Independent Director

Steve Larocque is an independent crop advisor based out of Three Hills, Alberta. As owner of Beyond Agronomy, he manages over 55,000 acres of cropland and publishes Beyond Agronomy News, a weekly crop production and grain market newsletter with his wife. Steve is a first generation grain farmer who farms north of Drumheller and one of the first to implement a full controlled traffic farming and inter-row seeding system in Western Canada. He is also managing director of Preferred Carbon Land Management. Steve has been working with producers for over ten years. He is a Certified Crop Advisor, has a diploma in Crop Advisory from Olds College and a Bachelor of Science degree in Agriculture from the

Financials

University of Lethbridge. Steve is a 2007 Canadian Nuffield Scholar and had the opportunity to travel to Brazil (twice), Kenya, Australia (four times), New Zealand (twice), Mexico, United States, Canada and the United Kingdom to study precision agriculture and controlled traffic farming.

The following chart shows a summary of the company’s income statements.

STATEMENTS OF OPERATIONS				
(in C\$) - YE June 30	2013	2014	2015	2016
Revenues				1,050,000
COGS				860,787
Gross Profit	-	-	-	189,213
Operating Expenses				
G&A	858,393	827,451	995,812	1,031,472
Share based compensation	128,850	359,850	144,100	243,100
Total Operating Expenses	987,243	1,187,301	1,139,912	1,274,572
EBITDA	-987,243	-1,187,301	-1,139,912	-1,085,359
Depreciation and amortization	14,231	21,951	29,439	90,727
EBIT	-1,001,474	-1,209,252	-1,169,351	-1,176,086
Interest Expenses	32,336	39,526	29,382	14,298
EBIT	-1,033,810	-1,248,778	-1,198,733	-1,190,384
Non-recurring expense			48624	22,035
Tax				
Net Income	(1,033,810)	(1,248,778)	(1,247,357)	(1,212,419)
EPS	-0.05	-0.04	-0.04	-0.03

The company reported revenues for the first time in Q4-2016 (quarter ended June 30, 2016) from the first two unit sales. Revenues were \$1.05 million in the quarter, with a gross margin of 18%.

Overall, the company reported revenues of \$1.05 million and a net loss of \$1.21 million (EPS: -\$0.03) in FY2016. General and administrative (“G&A”) expenses were \$1.03 million, and stock based compensation was \$0.24 million. Management expects G&A expenses to be approximately \$1.4 million in FY2017.

The following table shows a summary of the company’s cash flows:

Summary of Cash Flows						
(\$, mm)	2012	2013	2014	2015	2016	Total
Operating	-\$0.92	-\$0.69	-\$0.91	-\$0.91	-\$1.18	-\$4.62
Investing	-\$0.11	-\$0.19	-\$0.62	-\$0.90	-\$1.13	-\$2.94
Financing	\$1.43	\$0.58	\$1.91	\$1.51	\$2.62	\$8.05
Net	\$0.40	-\$0.31	\$0.38	-\$0.30	\$0.32	\$0.49
Free Cash Flows	-\$1.03	-\$0.88	-\$1.53	-\$1.81	-\$2.31	-\$7.56

Free cash flows (“FCF”) were -\$2.31 million in FY2016. Since 2012, FCFs totaled -\$7.56 million. The company raised net equity of \$8.05 million since 2012, to fund the negative FCF.

The company has a reasonably healthy balance sheet, with no long-term debt. At the end of FY2016, the company had \$0.49 million in cash, with a working capital of \$0.37 million. The following table shows the company’s cash and liquidity position.

Liquidity & Capital Structure (C\$)	2013	2014	2015	2016
Cash	95,637	474,198	178,968	494,427
Working Capital	(634,999)	(255,529)	(708,417)	370,867
Current Ratio	0.3	0.7	0.2	1.7
LT Debt	-	-	-	-
Total Debt	646,920	578,387	500,642	184,559
LT Debt / Capital	0.0%	0.0%	0.0%	0.0%
Total Debt / Capital	14.7%	10.5%	8.2%	2.3%
EBIT Interest Coverage	(31.0)	(30.6)	(39.8)	(82.3)

On August 4, 2016, CSX announced the receipt of a zero interest loan of up to \$1.825 million from the Government of Canada for the commercialization of the CX-6. We believe this is a strong endorsement from the government and suggests their impetus to support Clean Seed’s initiatives.

The company currently has 3.94 million options (weighted average exercise price – \$0.39), and 5.01 million warrants (weighted average exercise price - \$0.80) outstanding. Approximately 2.27 million options are currently in the money. The company can raise up to \$0.71 million if all these options are exercised.

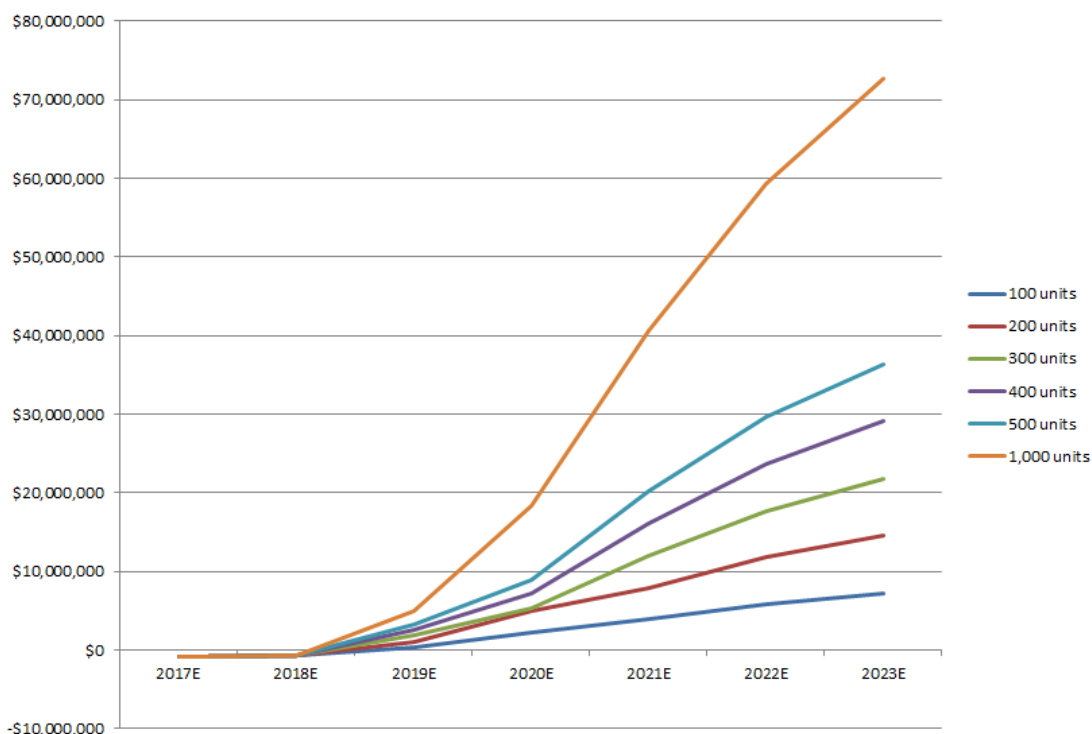
Our **base-case forecasts** are presented below. The model is based on achieving 10% market share of the seeder market (annual sales of 300 units) in the northern great plains area of Canada and the U.S. by 2023.

Stock Options and Warrants

Revenue and EPS Projections

STATEMENTS OF OPERATIONS								
(in CS) - YE June 30	2016	2017E	2018E	2019E	2020E	2021E	2022E	2023E
No. of Units	2	5	10	50	100	175	250	300
Average Price per Unit	525,000	550,000	575,000	600,000	612,000	624,240	636,725	649,459
Total Revenues	1,050,000	2,750,000	5,750,000	30,000,000	61,200,000	109,242,000	159,181,200	194,837,789
Revenues	1,050,000	2,750,000	5,750,000	30,000,000	61,200,000	109,242,000	159,181,200	194,837,789
COGS	860,787	1,787,500	3,593,750	18,000,000	36,720,000	65,545,200	95,508,720	116,902,673
Gross Profit	189,213	962,500	2,156,250	12,000,000	24,480,000	43,696,800	63,672,480	77,935,116
Operating Expenses								
G&A	1,031,472	1,392,487	2,012,500	9,000,000	15,300,000	24,579,450	35,815,770	43,838,502
Share based compensation	243,100	275,000	575,000	750,000	1,224,000	1,638,630	2,387,718	2,922,567
Total Operating Expenses	1,274,572	1,667,487	2,587,500	9,750,000	16,524,000	26,218,080	38,203,488	46,761,069
EBITDA	-1,085,359	-704,987	-431,250	2,250,000	7,956,000	17,478,720	25,468,992	31,174,046
Depreciation and amortization	90,727	30,071	74,057	109,246	137,397	159,917	177,934	192,347
EBIT	-1,176,086	-735,059	-505,307	2,140,754	7,818,603	17,318,803	25,291,058	30,981,699
Interest Expenses	14,298	140,000	240,000	360,000	310,000	140,000	20,000	-
EBIT	-1,190,384	-875,059	-745,307	1,780,754	7,508,603	17,178,803	25,271,058	30,981,699
Non-recurring expense	22,035							
Tax		-	-	-	2,252,581	5,153,641	7,581,317	9,294,510
Net Income	(1,212,419)	(875,059)	(745,307)	1,780,754	5,256,022	12,025,162	17,689,741	21,687,189
EPS	-0.03	-0.02	-0.02	0.04	0.12	0.27	0.40	0.49

The following chart shows the sensitivity of our net profit estimates to the 2023 unit sales forecast.



Our base-case Discounted Cash Flow (“DCF”) valuation on CSX shares is \$1.90 per share. The following table shows a summary of our valuation model.

DCF Valuation (\$)	2017E	2018E	2019E	2020E	2021E	2022E	2023E	Terminal
Funds Flow from Operations	-\$471,987	\$71,750	\$2,892,000	\$6,834,419	\$13,921,709	\$20,269,393	\$24,802,103	
-increase in w/c	\$115,999	-\$630,000	-\$2,575,000	-\$6,336,000	-\$7,446,510	-\$7,740,576	-\$5,526,771	
Cash Flows from Operations	-\$355,988	-\$558,250	\$317,000	\$498,419	\$6,475,199	\$12,528,817	\$19,275,332	
CAPEX	-\$1,750,000	-\$1,750,000	-\$1,750,000	-\$1,750,000	-\$1,750,000	-\$1,750,000	-\$1,750,000	
Free Cash Flows	-\$2,105,988	-\$2,308,250	-\$1,433,000	-\$1,251,581	\$4,725,199	\$10,778,817	\$17,525,332	\$168,878,967
Present Value	-\$1,870,576	-\$1,821,050	-\$1,004,164	-\$778,999	\$2,612,266	\$5,292,829	\$7,643,681	\$73,656,629
Discount Rate	12.6%							
Present Value	\$83,730,617							
Cash - Debt	\$309,868							
Fair Value	\$84,040,485							
Shares O/S (treasury stock method)	44,196,248							
Value per share (\$)	\$1.90							

We estimate the expected return on equity for the industry is approximately 9.6%. We used a 12.6% discount rate for CSX after adding a 3% small-cap premium. Note that this valuation is solely based on potential revenues from the CX-6 Smart Seeder in the northern great plains area of Canada and the U.S. Our valuation does not account for any upside from potential global expansion, the company's other products, entry into the planter market, or licensing opportunities.

The following table shows our comparables valuation model, which values CSX shares based on Agricultural and Farm Machinery industry averages (Source: S&P Capital IQ).

2023 Estimates for CSX				
Revenues				\$194,837,789
EBITDA				\$31,174,046
Net Income				\$21,687,189
	Industry Average	Fair Value (2023E)	Current FV	Current FV / Share
EV / Revenues	1.6	\$311,740,462	\$135,965,727	\$3.08
P / E	17.8	\$386,031,972	\$168,367,999	\$3.81
Average		\$348,886,217	\$152,166,863	\$3.44

Management has identified the following as the key upcoming catalysts in the next 12 months:

- Continue to collaborate with RME to conduct demonstrations of the CX-6 across the

Risk

- Canadian prairies to ramp up sales;
- Identify and partner with U.S. based distributors
- Continue to expand the IP portfolio
- Secure distribution and licensing agreements for the Dart and Arrow products and initiate production of those products
- Develop smart planting technologies aimed at the global planter market
- Potential licensing or M&A activity

We are initiating coverage on CSX with a BUY rating and a fair value estimate of \$1.90 per share. For conservatism, we have assigned 100% of the weight to our DCF valuation at this time.

We believe the company is exposed to the following key risks:

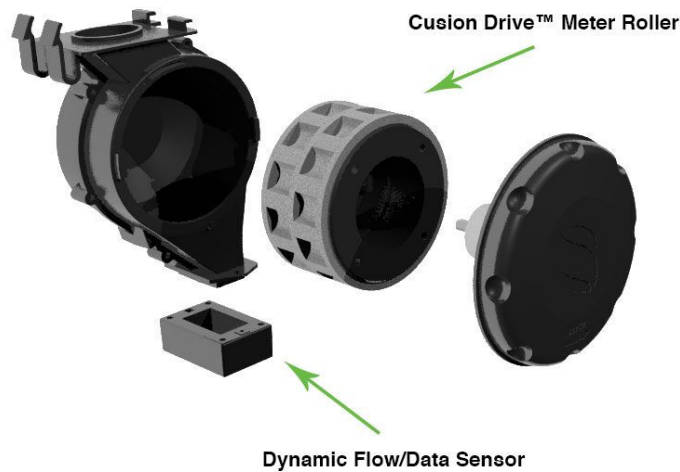
- As the company recently transitioned from a R&D company to commercialization, they do not have a track record of revenues or positive cash flows.
- Ability to ramp up sales and gain market traction.
- The seeding equipment market is highly competitive dominated by larger players.
- The company may be exposed to exchange rate risks based on potential sales in the U.S. and future plans to grow globally.
- The company may need to pursue financings in the future to fund expansion.
- Like any technology company, the company will always need to keep innovating and spend significant resources on R&D.
- Farm equipment sales are highly dependent on the overall health of the economy and are exposed to economic downturns.

APPENDIX

The following points highlight CX-6 seeder’s major strengths:

- The CX-6 Smart Seeder has a proprietary seed and fertilizer metering system at individual opener points offering flexibility to micromanage up to six inputs with precision at every foot of the field.
- The products are gravity fed down to the openers from the proprietary metering system, which allows for superior and uniform placement in soil, rather than blowing it down at high speeds (like air seeders) which creates seed bounce, unnecessary seed stress and uneven distribution.

SMART SEEDER™ Metering Pod



Source: Company

- Each opener can plant up to six unique products out of any of 3 ports individually or simultaneously. Precise metering of up to six individual products directly above each opener significantly improves product distribution inside each furrow and across each opener row on every foot of the field.
- The CX-6’s openers (images below) go deeper than traditional seeders resulting in deeper rooting depths. Fertilizers can be placed up to 3.5 inch deep and seeds go up to 0.5 inch, making it easy for the seeds to germinate and drop lower to the fertilizer. The CX-6 places seeds above loose soil created by its proprietary subsurface agitation wings, making it easy for the seeds to root down, leaving porous space for moisture to come back up. Also, due to the narrow vertical opening in the soil created by the opener, there is minimal surface soil disturbance, and closing of the surface soil improving plant survival and increasing yield.



Source: Company

- Electronic control systems allow the operator to adjust the product mixes across the CX-6 “on the fly”.
- One-pass planting allows for significant time and cost savings.
- Overlap elimination – If the seeder enters into an area of overlap, it will recognize the position and stop metering to avoid overlapping application of inputs.
- Turn compensation – eliminating over application during turning while seeding.
- Vertically integrated software platform, named SeedSync™, which can be installed on a laptop / tablet, integrates soil maps, automatic input controls, location documenting, and related information, allowing farmers to track and control operations completely wirelessly.

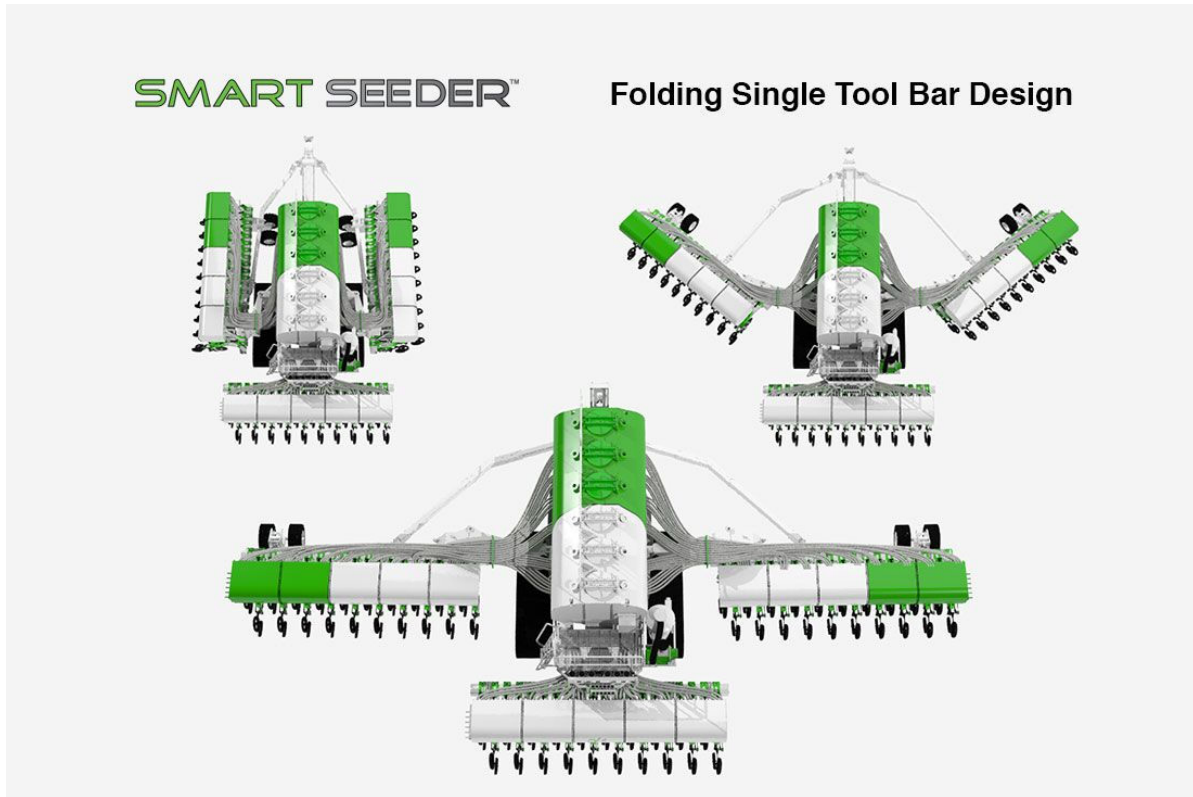


In field plant level zone variance example

Wireless control powered by SeedSync™ for accurate on-the-fly metering input control.

Source: Company

- The seeders frame folds forward for easy transport, repositioning between fields and winter storage.



Source: Company

- The SMART Cart™ supports the logistics and product handling for the CX-6 seeder.
- A pneumatic transfer system allows for on-the-fly refilling of the CX-6 seeder, nearly eliminating down time to the seeding operation. The carts can be transported down the highway (single or in tandem) back to the yard for filling, eliminating the need for trucks, semi-trailers, tenders, augers and conveyors to carry seed and fertilizer – this is a significant competitive advantage. The Smart Cart below is shown trailing the CX-6 during on-the-fly refilling.



Source: Company

STATEMENTS OF OPERATIONS						
(in CS) - YE June 30	2013	2014	2015	2016	2017E	2018E
Revenues				1,050,000	2,750,000	5,750,000
COGS				860,787	1,787,500	3,593,750
Gross Profit	-	-	-	189,213	962,500	2,156,250
Operating Expenses						
G&A	858,393	827,451	995,812	1,031,472	1,392,487	2,012,500
Share based compensation	128,850	359,850	144,100	243,100	275,000	575,000
Total Operating Expenses	987,243	1,187,301	1,139,912	1,274,572	1,667,487	2,587,500
EBITDA	-987,243	-1,187,301	-1,139,912	-1,085,359	-704,987	-431,250
Depreciation and amortization	14,231	21,951	29,439	90,727	30,071	74,057
EBIT	-1,001,474	-1,209,252	-1,169,351	-1,176,086	-735,059	-505,307
Interest Expenses	32,336	39,526	29,382	14,298	140,000	240,000
EBIT	-1,033,810	-1,248,778	-1,198,733	-1,190,384	-875,059	-745,307
Non-recurring expense			48,624	22,035		
Tax					-	-
Net Income	(1,033,810)	(1,248,778)	(1,247,357)	(1,212,419)	(875,059)	(745,307)
EPS	-0.05	-0.04	-0.04	-0.03	-0.02	-0.02

BALANCE SHEETS						
(in C\$) - YE June 30	2013	2014	2015	2016	2017E	2018E
ASSETS						
CURRENT						
Cash and cash equiv.	95,637	474,198	178,968	494,427	40,439	64,189
Receivables	38,145	46,580	24,657	51,977	412,500	1,150,000
Prepaid expenses	7,376	22,102	12,250	347,806	68,750	143,750
Inventory	88,509	26,666		11,634		
Total Current Assets	229,667	569,546	215,875	905,844	521,689	1,357,939
PP&E	90,390	111,009	127,561	150,357	370,286	546,228
IP	4,307,532	5,081,374	6,197,358	7,466,484	8,966,484	10,466,484
Total Assets	4,627,589	5,761,929	6,540,794	8,522,685	9,858,458	12,370,651
LIABILITIES						
CURRENT						
Accounts payable	217,746	246,688	423,650	350,418	536,250	718,750
Related parties	344,216	291,526	165,824	184,559	184,559	184,559
Note payable	302,704	286,861	334,818		1,750,000	4,250,000
Total Current Liabilities	864,666	825,075	924,292	534,977	2,470,809	5,153,309
SHAREHOLDERS EQUITY						
Equity	6,343,700	8,766,409	10,693,414	14,277,039	14,277,039	14,277,039
Accumulated deficit	-2,580,777	-3,829,555	-5,076,912	-6,289,331	-6,889,390	-7,059,697
Total shareholders' equity (deficiency)	3,762,923	4,936,854	5,616,502	7,987,708	7,387,649	7,217,342
Total Liabilities and Shareholders Equity	4,627,589	5,761,929	6,540,794	8,522,685	9,858,458	12,370,651

STATEMENTS OF CASH FLOWS

(in C\$) - YE June 30	2013	2014	2015	2016	2017E	2018E
OPERATING ACTIVITIES						
Net loss	-1,033,810	-1,248,778	-1,247,357	-1,212,419	-875,059	-745,307
Adjusted for items not involving cash:						
Depreciation and amortization	14,231	21,951	29,439	90,727	30,071	74,057
Foreign exchange	9,784	4,603	48,624	22,035		
Interest	32,337	39,526	29,382	12,264		
Share based compensation	123,850	359,850	144,100	243,100	275,000	575,000
Others				30,025		
Change in WC						
A/R	51,732	-8,435	21,923	-27,320	-360,523	-737,500
Inventory	355	-31,519		-11,634	11,634	0
Prepaid expenses	51,654	-14,726	9,852	-335,556	279,056	-75,000
Related parties	14,137	-38,225	-129,416	81,166	0	0
A/P	40,907	4,277	181,413	-72,442	185,832	182,500
Net Cash From Operating Activities	-694,823	-911,476	-912,040	-1,180,054	-453,988	-726,250
INVESTING ACTIVITIES						
PP&E	-24,359	-35,720	-45,991	-127,441	-250,000	-250,000
IP	-164,843	-583,136	-850,826	-1,001,362	-1,500,000	-1,500,000
Net Cash Used in Investing Activities	-189,202	-618,856	-896,817	-1,128,803	-1,750,000	-1,750,000
FINANCING ACTIVITIES						
Equity	551,700	2,062,859	1,632,905	2,838,027		
Debt	24,000	-153,966	-119,278	-213,711	1,750,000	2,500,000
Net Cash From Financing Activities	575,700	1,908,893	1,513,627	2,624,316	1,750,000	2,500,000
Increase in Cash for the year	-308,325	378,561	-295,230	315,459	-453,988	23,750
Cash, beginning of the year	403,962	95,637	474,198	178,968	494,427	40,439
Cash, end of the year	95,637	474,198	178,968	494,427	40,439	64,189

Fundamental Research Corp. Equity Rating Scale:

Buy – Annual expected rate of return exceeds 12% or the expected return is commensurate with risk

Hold – Annual expected rate of return is between 5% and 12%

Sell – Annual expected rate of return is below 5% or the expected return is not commensurate with risk

Suspended or Rating N/A— Coverage and ratings suspended until more information can be obtained from the company regarding recent events.

Fundamental Research Corp. Risk Rating Scale:

1 (Low Risk) - The company operates in an industry where it has a strong position (for example a monopoly, high market share etc.) or operates in a regulated industry. The future outlook is stable or positive for the industry. The company generates positive free cash flow and has a history of profitability. The capital structure is conservative with little or no debt.

2 (Below Average Risk) - The company operates in an industry where the fundamentals and outlook are positive. The industry and company are relatively less sensitive to systematic risk than companies with a Risk Rating of 3. The company has a history of profitability and has demonstrated its ability to generate positive free cash flows (though current free cash flow may be negative due to capital investment). The company’s capital structure is conservative with little to modest use of debt.

3 (Average Risk) - The company operates in an industry that has average sensitivity to systematic risk. The industry may be cyclical. Profits and cash flow are sensitive to economic factors although the company has demonstrated its ability to generate positive earnings and cash flow. Debt use is in line with industry averages, and coverage ratios are sufficient.

4 (Speculative) - The company has little or no history of generating earnings or cash flow. Debt use is higher. These companies may be in start-up mode or in a turnaround situation. These companies should be considered speculative.

5 (Highly Speculative) - The company has no history of generating earnings or cash flow. They may operate in a new industry with new, and unproven products. Products may be at the development stage, testing, or seeking regulatory approval. These companies may run into liquidity issues, and may rely on external funding. These stocks are considered highly speculative.

Disclaimers and Disclosure

The opinions expressed in this report are the true opinions of the analyst about this company and industry. Any “forward looking statements” are our best estimates and opinions based upon information that is publicly available and that we believe to be correct, but we have not independently verified with respect to truth or correctness. There is no guarantee that our forecasts will materialize. Actual results will likely vary. The analyst and Fundamental Research Corp. “FRC” does not own any shares of the subject company, does not make a market or offer shares for sale of the subject company, and does not have any investment banking business with the subject company. Fees were paid by CSX to FRC. The purpose of the fee is to subsidize the high costs of research and monitoring. FRC takes steps to ensure independence including setting fees in advance and utilizing analysts who must abide by CFA Institute Code of Ethics and Standards of Professional Conduct. Additionally, analysts may not trade in any security under coverage. Our full editorial control of all research, timing of release of the reports, and release of liability for negative reports are protected contractually. To further ensure independence, CSX has agreed to a minimum coverage term including four reports. Coverage can not be unilaterally terminated. Distribution procedure: our reports are distributed first to our web-based subscribers on the date shown on this report then made available to delayed access users through various other channels for a limited time.

The distribution of FRC’s ratings are as follows: BUY (71%), HOLD (7%), SELL (5%), SUSPEND (17%).

To subscribe for real-time access to research, visit <http://www.researchfrc.com/subscribe.php> for subscription options.

This report contains "forward looking" statements. Forward-looking statements regarding the Company and/or stock’s performance inherently involve risks and uncertainties that could cause actual results to differ from such forward-looking statements. Factors that would cause or contribute to such differences include, but are not limited to, continued acceptance of the Company's products/services in the marketplace; acceptance in the marketplace of the Company's new product lines/services; competitive factors; new product/service introductions by others; technological changes; dependence on suppliers; systematic market risks and other risks discussed in the Company's periodic report filings, including interim reports, annual reports, and annual information forms filed with the various securities regulators. By making these forward looking statements, Fundamental Research Corp. and the analyst/author of this report undertakes no obligation to update these statements for revisions or changes after the date of this report. A report initiating coverage will most often be updated quarterly while a report issuing a rating may have no further or less frequent updates because the subject company is likely to be in earlier stages where nothing material may occur quarter to quarter.

Fundamental Research Corp DOES NOT MAKE ANY WARRANTIES, EXPRESSED OR IMPLIED, AS TO RESULTS TO BE OBTAINED FROM USING THIS INFORMATION AND MAKES NO EXPRESS OR IMPLIED WARRANTIES OR FITNESS FOR A PARTICULAR USE. ANYONE USING THIS REPORT ASSUMES FULL RESPONSIBILITY FOR WHATEVER RESULTS THEY OBTAIN FROM WHATEVER USE THE INFORMATION WAS PUT TO. ALWAYS TALK TO YOUR FINANCIAL ADVISOR BEFORE YOU INVEST. WHETHER A STOCK SHOULD BE INCLUDED IN A PORTFOLIO DEPENDS ON ONE’S RISK TOLERANCE, OBJECTIVES, SITUATION, RETURN ON OTHER ASSETS, ETC. ONLY YOUR INVESTMENT ADVISOR WHO KNOWS YOUR UNIQUE CIRCUMSTANCES CAN MAKE A PROPER RECOMMENDATION AS TO THE MERIT OF ANY PARTICULAR SECURITY FOR INCLUSION IN YOUR PORTFOLIO. This REPORT is solely for informative purposes and is not a solicitation or an offer to buy or sell any security. It is not intended as being a complete description of the company, industry, securities or developments referred to in the material. Any forecasts contained in this report were independently prepared unless otherwise stated, and HAVE NOT BEEN endorsed by the Management of the company which is the subject of this report. Additional information is available upon request. THIS REPORT IS COPYRIGHT. YOU MAY NOT REDISTRIBUTE THIS REPORT WITHOUT OUR PERMISSION. Please give proper credit, including citing Fundamental Research Corp and/or the analyst, when quoting information from this report.

The information contained in this report is intended to be viewed only in jurisdictions where it may be legally viewed and is not intended for use by any person or entity in any jurisdiction where such use would be contrary to local regulations or which would require any registration requirement within such jurisdiction.