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9B17M061

meakin enterprises: balancing risks in the agriculture industry

Tyler Case and Douglas Kalesnikoff wrote this case solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

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It was not until January 25, 2017, that Daved Meakin was finally able to catch his breath after the hectic 2016 farming and trucking season. Meakin was reviewing the financial statements for 2016 as compared with 2015 for Meakin Industrial Ag Corp. (Meakin Industrial) and Meakin Farms Inc. (Meakin Farms). While both organizations remained viable, he wondered what he should do for 2017 and beyond, given the unique structure of the businesses and the vast uncertainty of the agricultural industry. Should he remain at the 2016 farm size of 3,200 seeded acres (1,295 hectares[[1]](#footnote-1)), or go back up to approximately 4,000 acres (1,620 hectares), as he had farmed in 2015? What should he do with the trucking business—expand, contract, or maintain the current levels of business? Could he expand both operations, or would he need to have a contraction in one to enable an expansion in the other? What were the risks and benefits of the changing business environment, and how would they influence his decision?

MEAKIN ENTERPRISES: COMPANY HISTORY

As a child, Meakin had spent many days with his grandparents on the family farm near Langham, Saskatchewan. Like many children, when Meakin graduated from high school, he was encouraged to attend university and develop a career away from the farm. He followed this advice and earned an engineering degree in 1998 and went to work for a farm implement manufacturer in Regina, Saskatchewan, some 300 kilometres away from the family farm.

Although Meakin had a successful and fulfilling career as an engineer, farming remained his passion. By 2004, when Meakin had chosen to return to Langham to embark on a career in farming, the family farm had already been sold, as land prices had been favourable and no successor had been identified. Meakin was left with the unenviable task of starting a farming operation from scratch.

In 2005, Meakin started his farming operation, Meakin Farms, by purchasing one quarter section (160 acres, or 65 hectares) of land from his grandmother and supplementing the owned acreage with rented land. Through the years, Meakin gradually bought more land and rented additional land to increase the land base. The farm size peaked in 2015 at 3,840 acres (1,554 hectares).

While growing the farm, Meakin employed a true entrepreneurial approach and used his professional engineering skills to be of service to other farmers in equipment modifications, servicing, repairs, and grain hauling. In this way, he gained farming skills while creating income and cash flow to expand his own farming operation. This farm service income led to the creation of Meakin Industrial, which grew into a trucking operation for the hauling of grain bins, grain, seed, and fertilizer, with annual revenues of more than CA$250,000[[2]](#footnote-2) by 2016.

THE Agriculture Industry

The Supply Chain: Sourcing Inputs

The size and structure of the agriculture industry had seen significant change in recent decades: the total number of Saskatchewan farms had decreased from 63,431 in 1986 to 36,952 in 2011,[[3]](#footnote-3) and a further decrease was evident. The average farm size had grown substantially from 1,036 acres (419 hectares) in 1986 to 1,668 acres (675 hectares) in 2011, with many active farming operations managing 5,000 acres (2,023 hectares) or more.[[4]](#footnote-4)

The thousands of Saskatchewan farmers typically purchased their crop inputs, such as seed, fertilizer, and chemicals, from numerous independent retailers across the province. Large, multinational agrochemical and biotechnology companies, such as Monsanto, Bayer Inc., Syngenta Canada Inc., DuPont, BASF SE, and Dow AgroSciences LLC, supplied many of these inputs to the retailers. Farmers were free to choose their retailer of choice and to seek a low-cost provider, but price differences between retailers were negligible, and many sought to create relationships with their local retailer in an effort not only to reduce transport distances but also, more importantly, to gain access to new products, application methods, and farming techniques. As with the farms themselves, much of the production and retailing of agricultural inputs had been consolidated. For example, many of the input retailers had other regionally affiliated stores, and the large inland grain terminals that historically handled grain were increasingly adding input sales to their product and service mix. Furthermore, fertilizer and fuel markets, two crucial inputs, had seen vast price variability in recent years, given the changing microeconomic factors. As a result of this supply chain, the farmer had become very much a price-taker with many of the crop inputs having volatile prices.

The prices of the crop inputs supplied to the farmer varied, due to not only the changing commodity prices of the inputs but also crop selection. Of the main inputs of seed, fertilizer, and chemicals, the highest input cost was most often fertilizer. In crop selection, the farmer faced difficult investment decisions; for example, while canola traditionally realized a higher selling price than wheat, the required seed, fertilizer, and chemicals costs were also greater for canola.

From Field to Plate

The marketing of commodities was a vital skill not often associated with farming. Farmers aimed to be low-cost producers but also needed to maximize their profitability in commodity sales, where prices were largely determined by global supply and demand. Many modern farmers were skilled in marketing commodities, as crops such as canola, peas, and lentils had been traded in an open market system for decades. The marketing of wheat and barley, however, had recently changed with the dismantling of the Canadian Wheat Board marketing agency in 2012, which paved the way for a free market system that allowed farmers to capitalize on market opportunities but also exposed them to risks. Many farmers argued that the Canadian Wheat Board’s monopolistic system had limited sales and subsequent price opportunities, while others felt that the pooling system had offered the best returns for their commodities.

Farmers often attempted to reduce production risks and “lock in” prices by forward contracting a specified amount of crop at a minimum quality level and specified price. These contracts could be made using intermediary brokerage agents or directly with distribution processors and terminals. In practice, forward contracting was a useful risk management tool, but if discrepancies arose, the agreements could be difficult for individual farmers to enforce with larger processors. Determining the grade of commodities was not an exact science, particularly given the volume of product handled by both farmers and processors. Farmers were always seeking to produce and market the highest-grade commodities possible to capitalize on their price potential, while processing and distribution intermediaries were trying to realistically assess the grades. Disagreements existed. Fluctuations in production, both locally and internationally, led to a wide variation in the price per bushel of crops produced (see Exhibit 1).

As was the case with the production and marketing of all commodities, differentiation of the final product was difficult. Farmers regularly sought means to make their products more appealing to processing intermediaries and final consumers alike. Some means of differentiation included attaining premium-grade quality crops or producing new crops and crop varieties that had characteristics desired by consumers. The organic movement, which had resonated with end-consumers in recent years, could yield price premiums for producers, but much misinformation persisted, and many farmers questioned the profitability and land use of organic production.

Upon completion of harvest, farmers delivered their commodities to several inland terminals and processors. Some farmer-owned co-operatives and independent intermediaries existed, particularly in the processing of pulse crops such as peas and lentils, but much of the processing capacity was also held by a few large, multinational agriculture corporations such as Cargill Inc. and Viterra Inc., many of which also supplied the inputs and agronomy services used by farmers. The iconic image of the small-town prairie grain elevator had all but disappeared to make way for more modern and efficient grain terminals. These large terminals were strategically located in the province to reduce the rail infrastructure needed to move the commodities to shipping ports in Vancouver, Churchill, Thunder Bay, and the St. Lawrence River. The consolidation of the inland terminals meant that more grain was transported from country farms to terminals via roadways with truck and trailer. The rail system was an oligopoly dominated by the Canadian National Railway and the Canadian Pacific Railway, and the scheduling of grain cars could be problematic, resulting in the terminals becoming filled to capacity and forcing farmers to invest in grain storage while also straining their cash flow.[[5]](#footnote-5)

The final market for commodities varied from year to year, and new markets were emerging. While some of the canola was used locally in crushing plants to create canola oil and meal, Canada exported approximately 90 per cent of the canola produced nationwide. Key canola markets included the United States, Mexico, and the European Union for biodiesel development, and China and Japan for edible oil. Peas were generally used for human consumption in regions such as India, Bangladesh, and China. Wheat was Canada’s most significant grain export to some major import markets in the Western Hemisphere (United States, Mexico, Colombia, and Peru), Europe, Asia (Indonesia, China, and Bangladesh), and Africa (Nigeria).[[6]](#footnote-6)

Weather and Pests

A number of exogenous variables influenced agriculture, but perhaps none was more impactful than weather conditions. Producers needed to regularly contend with weather-related factors such as excessive rain or drought, damaging winds, hail, and extremes in temperature (heat and frost). Farmers attempted to mitigate weather risks through insurance, crop rotation, production contracts, and plant varieties but uncertainty persisted. Furthermore, some scientists and interest groups were concerned that weather conditions were becoming unpredictable, given the influence of global climate change.

In addition to weather variables, farmers needed to regularly monitor and control yield-robbing pest pressures in the form of weeds, disease, fungi, and insects. Modern producers had long relied on herbicides and pesticides as effective means to control these pests. The use of herbicides had increased in recent years as farmers adopted a “zero-till” approach in an effort to capitalize on valuable soil moisture and nutrients that traditional tillage methods released into the atmosphere. Modern herbicides were much more effective in controlling pests and led to fewer health and safety concerns; still, some interest groups were concerned about herbicides’ long-term ecological impacts. The impact of weather and pests resulted in variations in production yields (see Exhibit 2).

The Increasing Value of Farm Land

One of the greatest challenges affecting the viability of modern farms was the immense capital expenditure necessary to maintain an appropriate land base to contend with the ever-growing size of competing farms. Land prices had increased significantly in the past decade (see Exhibit 3). Although high land prices were a welcome sight for retiring farmers looking to sell their land, the prices were prohibitive for those looking to start or expand.

Land prices varied significantly from province to province and from region to region within each province. Numerous factors influenced land prices, including farmers’ crop income and cash position, the health of the land as a result of historical farming practices, the land’s proneness to drought or flooding, tree coverage, oil or natural gas wells on the property, proximity to urban centres, foreign investment, and competitive pressures from expanding farms. Farm Credit Canada noted that numerous profitable growing seasons and limited available land, as a result of expanding farms and family succession, had resulted in high demand for land.[[7]](#footnote-7) Purchase prices varied from as low as $1,000 per acre ($405 per hectare) to well over $2,500 per acre ($1,012 per hectare), given some of the aforementioned influences. Lease rates were similarly volatile, and varied with rates as low as $40 per acre ($16 per hectare) to upwards of $100 per acre ($40 per hectare) in certain regions.

The “lease versus buy” debate was a common discussion among farmers. Purchasing land enabled the upside potential of capital appreciation but required either an extensive cash investment or financing. Furthermore, land prices had been rising for several years, and some industry insiders wondered whether prices would begin to level out or even decline in the near future. Inclement weather or low commodity prices, or both, could further strain land prices at any time. Leasing land reduced some of the risks of land purchases, but limited capital appreciation and determining lease rates could be challenging for both farmers and landlords. Securing leased land for periods of more than five years at a time was an uncommon practice, and many farm operations had seen their leased acreage fluctuate from year to year, making equipment investments difficult. When making land acquisitions, the price was only one factor. Farmers also needed to assess the location and quality of the land, the timing of expansion, their financial situation, the market situation and, finally, the business’s short- and long-term goals.

Skilled Labour in Short Supply

The availability of skilled labour posed constraints for many farms. In past decades, many farms were family-run operations, where multiple generations would come together to bring in their own harvest and that of their neighbours. The dynamics were changing, as children were often encouraged to pursue post-secondary education, and many did not return to the farm. The average age of farmers in Saskatchewan had increased from 50.5 in 2001 to 54.2 in 2011.[[8]](#footnote-8) Families were getting smaller, and farms were getting larger, relying more on large-scale technology to replace the once historic abundance of labour. The jobs that remained were challenging to fill, as they required a combination of skills that weren’t always available: the agribusiness management necessary to execute a successful growing season and the technical skills of operating modern farm equipment. The seasonal nature of the business further exacerbated the problem and drove many prospective farm workers in rural areas into oil and gas jobs while farms close to the urban centres always contended with the draw of city opportunities. Even the grandparents and retired neighbours that were once relied on as seasonal help were less relevant as a labour pool, given the complex nature of modern farm equipment. Operating a modern combine was more akin to flying an aircraft than driving a car. Many farm owners also maintained off-farm occupations to help alleviate the ever-present risk of a crop failure and cash flow concerns.

The Crisis of Cash Flow

A significant risk for a farming operation was managing cash flows. While most businesses had working capital requirements for inventory and receivables, the working capital typically turned into cash inflows in a matter of a few months. In farming, the lead times from the cash outflows, such as crop inputs, the interest and principal on the financing of land and machinery, fuel, wages, and insurance, preceded the cash inflows from crop sales by many months and sometimes by more than a year.

As almost all of the farm’s cash outflows were expended before the crop was harvested and ultimately sold, the economic effects of a crop failure were particularly acute. While other businesses could potentially avoid variable expenses if the revenue did not materialize, farmers had already incurred all of their fixed and variable expenses before any revenue was realized. Thus, any reduction in revenue, due to crop failure or low commodity prices, directly affected the operating earnings of the farm operation with little or no reduction of expenses.

The Trucking Industry

Bin Hauling

The demand for on-site grain bins had increased in the past decade, as a result of the growing size of farm operations and the distance of the farms to grain terminals. Grain bins varied in length and diameter; the larger bins were up to 32 feet (9.8 metres) long and had a diameter of 20 feet (6 metres). Bin delivery required the use of a pilot truck (the largest bins require two pilot trucks) to precede the truck that was hauling the bin to warn of the large load approaching on the highway.

Bin hauling required specialized trailers that enabled the large round grain storage bins to be delivered to a farm fully assembled (see Exhibit 4). The trailers utilized a hydraulic lift system to transport the grain bins in a horizontal position. Once at their delivered destination, the trailers were able to place the bins in a specific location in a vertical position.

The hauling of bins required permits from the Ministry of Highways, and the larger bins also required coordination with the provincial power company to lift power lines that crossed the highway. As a result, a great deal of management time was needed in coordinating deliveries, obtaining permits, and arranging for the lifting of power lines. Also, two drivers (three for the larger bins) were needed for each delivery to accommodate both the pilot truck and the delivery truck.

The peak period for bin hauling occurred from August to October, which coincided with the harvest period and the increased need for grain storage.

Grain, Seed, and Fertilizer Hauling

Grain hauling was a service provided to other farmers for the delivery of their grain to the grain terminals. As the distance of the farms to grain terminals increased, larger trailers were utilized to haul grain. Grain and fertilizer could be delivered using a “Super B Train” trailer that could haul a payload of up to 46.5 tons (42.2 tonnes, or approximately 1,700 bushels of wheat), depending on road conditions (see Exhibit 5).[[9]](#footnote-9) Fertilizer was particularly corrosive to trailers and could increase both depreciation and the costs associated with maintaining safety for insurance. Some trucking companies maintained special trailers to haul corrosive fertilizer or used smaller grain trailers to access farmyards and gravel roads when spring season weight restrictions were in effect.

Chemical Hauling

Hauling chemicals and other goods required a flat-deck trailer, which was the least complex and least expensive of the three trailers but was very useful in a variety of applications. The driver needed to attain hazardous goods training to haul chemicals.

The Impact of Weather

Weather had a profound effect on the profitability of both the farming operation and the trucking operation. The excessive rain, drought, winds, and hail that resulted in lower crop yields could also lower the demand for grain bins and grain hauling, and could make deliveries challenging.

Skilled Labour Still a Concern

To drive large trucks for the different types of deliveries, a driver needed a Class 1 licence, which required oral or written knowledge tests for Class 1 vehicles and a road test in a Class 1 vehicle. A pre-trip inspection, known as a circle check, needed to be demonstrated at the time of the road test.[[10]](#footnote-10) Drivers possessing this licence were in high demand, particularly during peak delivery seasons. Drivers typically sought to own and operate their own trucks and trailers, often under the umbrella of a larger established trucking company. Maintaining loyal, long-standing employees was often a challenge, as competitors could entice drivers away by offering higher wages. Drivers could be paid hourly or by piece rate by the tonnage hauled, while some farm employees received a salary and operated a truck and trailer as part of their farming duties. One of the challenges in the hauling business was employing drivers over a cyclical year, where demand fluctuated from season to season and even from month to month. The scheduling of deliveries could also be complicated, as trucking companies sought to link deliveries and make use of “back hauls” to avoid empty miles on the road. Scheduling needs increased commensurately with deliveries.

COMPANY OPERATIONS

Farming Operation

The statement of earnings for Meakin Farms for the three-year period 2014–2016 is provided in Exhibit 6.

Land: Lease or Buy?

Meakin was in the unique and challenging position of trying to start a farm from scratch, and the increasing prices were both a benefit and a curse. He was able to further leverage more financing as a result of the capital appreciation of his existing land but was limited in his ability to lease or buy more land given the high prices. The number of seeded acres farmed had fluctuated from 2014 to 2016, as Meakin Farms changed the proportion of land leased and owned (see Exhibit 7).

The 2016 reduction in acreage was the result of Meakin not having renewed a lease on 800 acres (324 hectares) of land due to the high lease rate of $62 per acre ($25 per hectare). Meakin Farms had incurred rental rates ranging from $45 to $62 per acre ($18 to $25 per hectare) over the past three years. It was likely that additional farmland could be leased at $55 per acre ($22 per hectare) in the near term. In 2017, the company purchased two additional quarters of previously rented land (320 acres, or 130 hectares), which brought the total land owned up to 1,200 acres (486 hectares).

Crop Choices

As with most farms, Meakin Farms produced a variety of crops—namely canola, wheat, and field peas. The choice of one crop over another was not merely based on the highest price commodity. The farming practices for each commodity differed. For example, canola, which was often the highest priced commodity, required more fertilizer than wheat. In addition, the harvesting of canola was a two-step process of first knocking down the crop into swaths and then picking up the crop with a combine; thus, requiring two passes in the field, incurring the twice the costs in equipment, fuel, and labour as wheat and peas, which, when “straight cut” harvested, required only one pass. Field peas were beneficial to soil health by fixing nitrogen and making it more available to crops planted in subsequent years. A healthy crop rotation of seeding different crops from year to year on the same land also helped to reduce the impact of diseases, weeds, and pests. During the past three years, Meakin Farms had shifted away from wheat and towards canola (see Exhibit 8).

Equipment Utilization

Meakin Farms used older farm equipment that was stretched to the limit in farming more than 3,800 acres (1,538 hectares) in 2015 and was underutilized in 2016, as yields were down due to hail damage on 640 acres (259 hectares) of land. If the farm size were to return to more than 3,800 acres (1,538 hectares), it would likely need a further investment of $100,000 in seeding and harvesting equipment.

Human Resources: Daved Meakin as a Key to Success

The availability of farm labour could be problematic. The need for the farm labour was seasonal, yet the responsibilities of the labour, when operating complex equipment, were great. Like most farm operations Meakin relied on both seasonal farm labour and family. For example, Meakin’s spouse, Nicole, a chartered professional accountant who had an off-farm career, often pitched in to operate the combines during the peak harvest season. In addition, Meakin’s management time was split between working on the farm and operating the trucking operation. Unfortunately, the busy bin-hauling component of the trucking operation often coincided with the harvest season of the farm.

Meakin was clearly pivotal to the success of the business because of his time, relationships, and expertise, which drove the organization. Farming was also one of Saskatchewan’s most hazardous industries, with an average of 13 people killed each year and many others injured.[[11]](#footnote-11) In the unfortunate event of his injury or death, the company operations would most certainly fail. As with many busy managers and entrepreneurs, Meakin also wanted balance his obligations of work and life with his personal interests and family being key priorities.

Financing with Long-Term Debt

Farmland and equipment were financed with long-term debt. As a farming operation that did not benefit from a land-base inheritance, Meakin Farms was highly leveraged with 75 per cent of the land and equipment financed.

In addition, the costs of crop inputs for seed, fertilizer, and chemicals, which ranged between $110 and $130 per acre ($45 and $53 per hectare), needed to be financed until the resulting crop was harvested and sold. The costs of fuel, wages, insurance, and repairs, ranging from $25–$35 per acre ($10–$14 per hectare), along with the long-term debt servicing, also required cash outflow before the crop was sold. This situation resulted in high levels of operating lines of credit and bank indebtedness.

The Trucking Operation

The statement of earnings for Meakin Industrial for the three-year period 2014–2016 is provided in Exhibit 9.

Types of Hauling

* *Bin Hauling*: The trucking operation, Meakin Industrial, began in 2013. The genesis of this business was to primarily service the delivery needs of two large industrial bin manufacturers for Central Saskatchewan. The bin manufacturers typically outsourced the delivery of grain bins to private operators such as Meakin Industrial. The grain bins varied in length and diameter, with Meakin Industrial’s current equipment able to transport bins up to 32 feet (10 metres) long and with a diameter of 20 feet (6 metres).

In 2014, Meakin Industrial had contracts with two large bin manufacturers, which resulted in revenues of more than $150,000. In 2015, Meakin Industrial lost one of the contracts with a major bin manufacturer to a competitor that undercut the delivery charges. The bin hauling remained strong in 2015, albeit only for one of two bin manufacturers, due to a need for on-farm grain storage because of a backlog of rail car grain deliveries. In 2016, the demand for bin hauling declined due to some hail damage in the area during the 2016 growing season.

* *Grain Hauling*: Grain hauling was a service provided to other farmers for the delivery of their grain to the inland processing terminals. Meakin Industrial provided this service to 10–15 farmers within a 100-kilometre radius of Meakin Farms. When one of the contracts for grain bins was not renewed in 2015, Meakin set out to expand the grain-hauling portion of the business. Meakin Farms was also able to reduce its own grain delivery costs by utilizing the services and equipment of Meakin Industrial.
* *Seed, Fertilizer and Chemical Hauling*: During the spring seeding season, Meakin Industrial was busy hauling seed, fertilizer, and chemicals to farmers within a 100-kilometre radius of Meakin Farms. A unique flatbed trailer was needed to haul chemicals, and the driver needed to have attained hazardous goods training.

Human Resources: Time in Short Supply

As a result of the seasonality of the hauling business, Meakin Industrial faced similar challenges to the farming operation in terms of the availability of skilled employees. As noted earlier, to drive large trucks for the different types of deliveries required a Class 1 licence. In addition, drivers who hauled chemicals required hazardous goods training. Also, two drivers (three for the larger bins) were needed for each delivery to accommodate both the pilot truck and the delivery truck for bin hauling.

Meakin’s management time was split between working on the farm and operating the trucking operation. The hauling of bins required permits from the provincial Ministry of Highways, and the larger bins also required coordination with the provincial power company to lift power lines that crossed the highway. As a result, a great deal of management time was needed in coordinating deliveries, securing permits, and arranging for the lifting of power lines.

Financing with More Debt

The cost of financing equipment for the trucking operation was relatively high, with interest rates usually at 8 per cent. All of the trucks were owned and financed with bank debt, while most of the trailers were leased on five-year terms.

Word-of-Mouth Marketing

Marketing for Meakin Industrial was mainly done through word of mouth. The contracts with bin manufacturers were secured through direct marketing by personal contact from Meakin. All trucks were marked as “Meakin Industrial Ag” to facilitate name recognition when the trucks were delivering products on the highways.

THE FUTURE

In January 2017, Meakin Farms purchased an additional 320 acres (130 hectares) of farm land that it had previously rented for $260,000; 75 per cent of the cost was financed at a mortgage rate of 4 per cent. As Meakin contemplated his future plans, he received a letter notifying him of the opportunity to lease an additional 960 acres (389 hectares) of government-owned farmland at $55 per acre ($22 per hectare), which coincided with the rate he was currently paying for other rented land. Just as he began to prepare projections for an expanded farm size, he received a text message from the large industrial bin manufacturer that had previously opted for another contractor in 2015. It was dissatisfied with the service from Meakin’s competitor and wanted him to handle the contract moving forward, and offered a 5 per cent price increase for his services.

Meakin’s excitement for the new opportunities was short-lived when he recalled that in 2016 he had been overloaded with management responsibilities. The demands on his time and the need for hired labour, which was difficult to find, were at a maximum. In addition, the farm’s poor financial results in 2016, as a result of hail damage, and the additional financing of the 2017 land purchase would leave little financing capacity to expand his farming and trucking equipment.

Meakin quickly realized that the constraints of management time, labour, and financing would result in some difficult choices. He could choose one of following three options for 2017:

* Option 1: Maintain the current levels of business. Keep the farm size at 3,200 acres (1,295 hectares) (substituting the 320 additional owned acres [130 hectares] for rented acres) and keep the trucking business the same size, thereby forgoing both the land lease and the bin-hauling opportunities.
* Option 2: Expand the farm to 4,160 acres (1,684 hectares) and reduce the trucking business. Meakin did not have the management time and needed labour resources to both increase the farm size and maintain the trucking operation. Given the similarity in peak seasons, the bin hauling would need to be eliminated if Meakin were to expand the farm. He would need to invest $100,000 in seeding and harvesting equipment to expand the farm size, of which he could finance 50 per cent at an interest rate of 8 per cent. Meakin would be able to sell the existing bin-hauling trailers for $50,000 to pay for the remainder of the funds needed for the farm expansion.
* Option 3: Reduce the farm to 2,240 acres (907 hectares) and expand the trucking business. Due to the constraints of management time and labour resources, Meakin could not both increase the trucking operation and maintain the farm size. He would need to invest $100,000 in bin-hauling trailers and pilot trucks to service the new bin-hauling contract, of which he could finance 50 per cent at an interest rate of 8 per cent. Meakin would be able to sell the existing seeding and harvesting equipment for $50,000 to pay for the remainder of the funds needs for the trucking expansion.

EXHIBIT 1: CANOLA, WHEAT, AND FIELD PEAS CROP PRICES, 2014–2016

(in Canadian DOLLARS PER BUSHEL)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2016** | | | **2015** | | | **2014** | | |
| *Low* | *High* | *Average* | *Low* | *High* | *Average* | *Low* | *High* | *Average* |
| **Canola** | 9.25 | 11.29 | 10.29 | 9.53 | 11.24 | 10.06 | 8.03 | 10.38 | 9.24 |
| **Wheat** | 5.38 | 6.46 | 6.06 | 5.03 | 6.48 | 5.83 | 4.71 | 6.31 | 5.41 |
| **Field Peas** | 6.87 | 14.07 | 10.42 | 7.11 | 10.98 | 8.73 | 5.40 | 7.11 | 6.33 |

Note: 1 bushel = 35 litres; 1 tonne of canola = 44.092 bushels, 1 tonne of wheat = 36.744 bushels, and 1 tonne of peas = 36.744 bushels

Source: Created by the authors using Government of Saskatchewan, “Saskatchewan Cash Prices,” accessed September 20, 2016, www.agr.gov.sk.ca/apps/markettrends/.

EXHIBIT 2: SASKATCHEWAN CANOLA, WHEAT, AND FIELD PEAs PRODUCTION AVERAGES, 2014–2016 (in BUSHELS PER ACRE)

|  |  |  |  |
| --- | --- | --- | --- |
|  | **2016\*** | **2015** | **2014** |
| *Average* | *Average* | *Average* |
| **Canola** | 40.0 | 36.1 | 32.6 |
| **Wheat** | 45.0 | 37.0 | 39.0 |
| **Field Peas** | 42.0 | 33.1 | 29.9 |

Note: 1 acre = 0.4 hectares; 1 bushel = 35 litres; 1 tonne of canola = 44.092 bushels, 1 tonne of wheat = 36.744 bushels, and 1 tonne of peas = 36.744 bushels

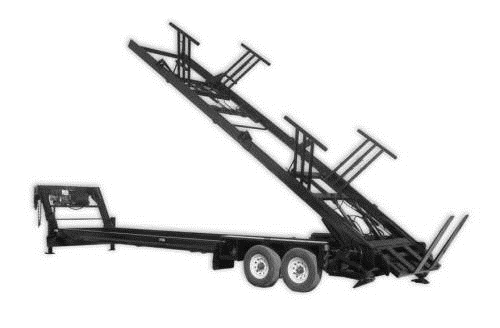
Source: Created by the authors using Government of Saskatchewan, “Crop Yields by Rural Municipality,” accessed September 20, 2016, www.agriculture.gov.sk.ca/rmyields; and Government of Saskatchewan, “Government of Saskatchewan, Crop Report for the Period November 15 to 21, 2016,” press release, November 24, 2016, accessed January 15, 2017, https://www.saskatchewan.ca/government/news-and-media/2016/november/24/final-crop-report.

EXHIBIT 3: SASKATCHEWAN Year-to-year LAND PRICE INCREASES, 2006–2015

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2006** | **2007** | | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| 2.1% | | 11.0% | 14.9% | 6.9% | 5.7% | 22.9% | 19.7% | 28.5% | 18.7% | 9.4% |

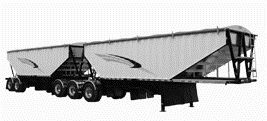
Source: Created by the authors using Farm Credit Canada, *1985–2015 Historic Farm Values*, 2, April 11, 2016, accessed September 22, 2016, https://www.fcc-fac.ca/fcc/about-fcc/corporate-profile/reports/farmland-values/farmland-values-historic-2015.pdf.

EXHIBIT 4: BIN HAULING TRAILER

[](http://www.cim-ltd.ca/images/CIM_Auto_bin_transport_cropped_lg.jpg)

Source: CIM Commercial Industrial Manufacturing Ltd., Auto Bin Transport Trailer, accessed September 25, 2016, <http://cim-ltd.ca/Auto_Bin_Transport.htm>. Used with permission.

EXHIBIT 5: “SUPER B TRAIN” GRAIN HAULING TRAILER

[](http://www.doepker.com/product/agriculture/classic-open-end-super-b4)

Source: Doepker, Classic Open End Super B, accessed September 25, 2016 <http://www.doepker.com/products/category/agriculture>. Used with permission.

EXHIBIT 6: MEAKIN FARMS INC. STATEMENTs OF EARNINGS, 2014–2016 (CA$)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | **2016** |  | **2015** |  | **2014** |  |
| **Acreage** | |  |  |  | ***3,200*** |  | ***3,840*** |  | ***2,480*** |  |
|  |  |  |  |  |  |  |  |  |  |  |
| **Revenue** | |  |  |  |  |  |  |  |  |  |
|  | Crop revenue | |  |  |  |  |  |  |  |  |
|  |  | Canola |  |  | 557,637 |  | 705,164 |  | 220,456 |  |
|  |  | Wheat |  |  | 158,068 |  | 341,946 |  | 526,282 |  |
|  |  | Peas |  |  | 107,572 |  | 87,245 |  | 109,976 |  |
|  |  |  |  |  | 823,277 |  | 1,134,355 |  | 856,714 |  |
| **Production Expenses** | | |  |  |  |  |  |  |  |  |
|  | Fertilizer, seed, and chemicals | | | | 407,488 |  | 480,922 |  | 325,690 |  |
| **Gross Margin** | | |  |  | 415,789 |  | 653,433 |  | 531,024 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| **Labour, Power, and Machinery Expenses** | | | | |  |  |  |  |  |  |
|  | Fuel, wages, insurance, and repairs | | | | 104,122 |  | 124,946 |  | 86,800 |  |
|  | Amortization | |  |  | 87,133 |  | 101,053 |  | 74,732 |  |
|  | Interest on equipment | | |  | 40,321 |  | 52,679 |  | 35,789 |  |
|  | Office, professional fees, etc. | | |  | 36,301 |  | 35,689 |  | 34,539 |  |
|  |  |  |  |  | 267,877 |  | 314,367 |  | 231,860 |  |
| **Contribution Margin** | | |  |  | 147,912 |  | 339,066 |  | 299,164 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| **Land, Buildings, and Land Finance Expenses** | | | | | |  |  |  |  |  |
|  | Land rent | |  |  | 127,600 |  | 184,080 |  | 114,000 |  |
|  | Interest on land | |  |  | 10,232 |  | 8,567 |  | 7,597 |  |
|  | Amortization | |  |  | 5,360 |  | 4,505 |  | 1,278 |  |
|  |  |  |  |  | 143,192 |  | 197,152 |  | 122,875 |  |
| **Earnings from Operations** | | | |  | 4,720 |  | 141,914 |  | 176,289 |  |
| Income Taxes | | |  |  | 1,180 |  | 35,479 |  | 44,072 |  |
| **Net Earnings** | | |  |  | 3,540 |  | 106,436 |  | 132,216 |  |
|  |  |  |  |  |  |  |  |  |  |  |

Note: 1 acre = 0.4 hectares; Revenue in 2015 was below expectations due to hail damage to 640 acres (259 hectares).

Source: Created by the authors using company documents.

EXHIBIT 7: MEAKIN FARMS Inc. ACREAGE owned and rented, and total acrage farmed, 2014–2016

|  |  |  |  |
| --- | --- | --- | --- |
|  | **2016** | **2015** | **2014** |
| **Acres Owned** | 880 | 720 | 480 |
| **Acres Rented** | 2,320 | 3,120 | 2,000 |
| **Total Acres Farmed** | 3,200 | 3,840 | 2,480 |

Source: Created by the authors using company documents.

EXHIBIT 8: MEAKIN FARMS Inc. ACREAGE FARMED by crop, 2014–2016

|  |  |  |  |
| --- | --- | --- | --- |
|  | **2016** | **2015** | **2014** |
| **Canola** | 50% | 40% | 30% |
| **Wheat** | 40% | 50% | 60% |
| **Field Peas** | 10% | 10% | 10% |
|  | 100% | 100% | 100% |

Source: Created by the authors using company documents.

EXHIBIT 9: MEAKIN INDUSTRIAL AG CORP. STATEMENT OF EARNINGS, 2014–2016

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | **2016** |  | **2015** |  | **2014** |
| **Revenue** | |  |  |  |  |  |  |  |  |
|  | Bin Hauling | |  |  | 72,357 |  | 74,992 |  | 165,006 |
|  | Grain Hauling | |  |  | 122,043 |  | 98,752 |  | 47,049 |
|  | Seed, Fertilizer, and Chemical Hauling | | | | 75,459 |  | 56,543 |  | 33,056 |
|  |  |  |  |  | 269,859 |  | 230,287 |  | 245,111 |
| **Expenses** | |  |  |  |  |  |  |  |  |
|  | Salaries, Wages, and Benefits | | | | 72,340 |  | 78,534 |  | 75,432 |
|  | Fuel and Repairs | |  |  | 41,078 |  | 40,587 |  | 46,893 |
|  | Equipment Leases | | |  | 31,804 |  | 23,589 |  | 22,865 |
|  | Amortization | |  |  | 44,851 |  | 34,662 |  | 32,800 |
|  | Interest on Equipment | | |  | 8,579 |  | 8,345 |  | 8,643 |
|  | Insurance | |  |  | 21,338 |  | 20,549 |  | 21,065 |
|  | Supplies, Office, and Other | | |  | 8,533 |  | 8,465 |  | 7,449 |
|  |  |  |  |  | 228,523 |  | 214,731 |  | 215,147 |
|  |  |  |  |  |  |  |  |  |  |
| **Earnings from Operations** | | | |  | 41,336 |  | 15,556 |  | 29,964 |
| **Provision for Income Taxes** | | | |  | 10,334 |  | 3,889 |  | 7,491 |
| **Net Earnings** | | |  |  | 31,002 |  | 11,667 |  | 22,473 |

Source: Created by the authors using company documents.

1. All hectare conversions are rounded up to the nearest hectare. [↑](#footnote-ref-1)
2. All currency amounts are in Canadian dollars unless otherwise specified. [↑](#footnote-ref-2)
3. Statistics Canada, “2011 Census of Agriculture,” accessed October 7, 2016, http://www.statcan.gc.ca/daily-quotidien/120510/dq120510a-eng.htm. [↑](#footnote-ref-3)
4. Ibid. [↑](#footnote-ref-4)
5. Canadian Pacific, *Canadian Grain Elevator and Terminal Directory*, January 2015, accessed October 10, 2016, www.cpr.ca/en/customer-resources-site/Documents/canada-grain-directory.pdf. [↑](#footnote-ref-5)
6. “Canadian Grain Exports,” Canadian Grain Commission, accessed October 10, 2016, www.grainscanada.gc.ca/statistics-statistiques/cge-ecg/cgem-mecg-eng.htm. [↑](#footnote-ref-6)
7. Farm Credit Canada, *2014 Farmland Values Report*, April 13, 2015, accessed October 10, 2016, https://www.fcc-fac.ca/fcc/about-fcc/corporate-profile/reports/farmland-values/farmland-values-report-2014.pdf. [↑](#footnote-ref-7)
8. 2011 Census of Agriculture, “2011 Farm and Farm Operator Data,” Statistics Canada, accessed October 7, 2016, www.statcan.gc.ca/pub/95-640-x/2011001/p1/prov/prov-47-eng.htm#Farm\_numbers. [↑](#footnote-ref-8)
9. Saskatchewan Ministry of Highways, “Special Weights on Saskatchewan Highways,” accessed October 7, 2016, www.highways.gov.sk.ca/special-weights/. [↑](#footnote-ref-9)
10. Saskatchewan Government Insurance, “Driver Licensing: Class 1 – Power Units, Semi Trailers and Trucks Towing over 4,600kg,” accessed March 29, 2017, https://www.sgi.sk.ca/individuals/licensing/classifications/class1.html. [↑](#footnote-ref-10)
11. Government of Saskatchewan, “Saskatchewan Farm Safety,” Saskatchewan Farm Injury Surveillance Program, accessed January 17, 2017, https://www.saskatchewan.ca/business/safety-in-the-workplace/hazards-and-prevention/safety-in-professions-and-industry/farm-safety. [↑](#footnote-ref-11)