

**GROWING THE FOOTPRINT OF
TRADITIONAL GRAIN ORIGINATION**

by

DUSTIN PLOEGER

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Major Professor
Dr. Allen Featherstone

ABSTRACT

This thesis focuses on the rapid growth of new generation contracts used by grain producers. Specifically, the research studies a potential customer base of producers not using Cargill's new generation contracts. A survey was conducted to uncover possible customer demand for Cargill's marketing solutions. Those surveyed do not have the opportunity to use these solutions because their operations typically lay outside the footprint of existing Cargill grain facilities. With Cargill's Flex Delivery Program, sales professionals have the ability to sell grain marketing solutions, like new generation contracts, to farming operations outside of existing asset footprints.

From the experiences of current sales professionals offering new generation contracts via Cargill's Flex Delivery Program, the author hypothesized that there are three primary variables influencing the likelihood of a customer finding value in the Flex Delivery Program. The size of farming operation, the number of facilities they deliver grain to and the importance they place on forward marketing are critical components to determining if a farming operation may market grain through Cargill's Flex Delivery Program using a new generation contract. The survey results revealed the percentage of the sample population fit the criteria of a Flex Delivery candidate. The survey questions were also designed to uncover farmer demographics, current marketing styles, competition, and, in general, provide good background information useful for making follow-up sales calls on those selected to survey. The results show roughly a third of those surveyed are Flex Delivery candidates.

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CHAPTER I - INTRODUCTION

This research was conducted for the purposes of examining potential customer interest for a series of risk management marketing tools offered by Cargill AgHorizons. The marketing solutions are somewhat unique to grain producers as they are still very much in their infancy. A literature review is provided to trace some of the history underlying new generation contracts and to explain how these types of grain contracts benefit the farmer. The literature also discusses the rapid growth of these grain contracts; not only in terms of volume, but also in terms of increasing diversity.

Cargill is able to offer an ever increasing line-up of risk management products and solutions to farmers. However, the number of farms using Cargill's risk management tools is currently limited to those operations that lie within a close proximity and deliver grain to existing Cargill grain facilities. As such, a new concept of offering their risk management tools to farmers who live outside the traditional asset footprint of Cargill facilities will be studied.

This research approach will help standardize a process of examining the feasibility of continued growth in Cargill's risk management business at the producer level. It provides insight for Cargill's management to consider with their growth plans. This research will have the most immediate value to Cargill's management team currently examining the staffing of a purposed sales territory for the specified geography discussed in this thesis. The aim of this research is to provide the management team with essential information critical to making a sound decision. Without knowledge of the purposed

territories' customer base, there is the potential to undermine the Flex Program by inadequate or over staffing. Knowledge of the customer base and their likelihood of using Cargill's marketing tools can save the company time and money.

This thesis will specifically address the following objectives:

- Quantifying the potential customer base within the sales territory,
- Uncovering the possible barriers to success and other risk factors, and
- Testing the authors Flex Customer Profile hypothesis.

The research method used was a survey conducted using a random selection of customer prospects within the purposed territory. Following the literature review, the survey is discussed in more detail before an examination of the findings.

CHAPTER II - LITERATURE REVIEW

This chapter reviews the literature available on farmer's crop marketing styles and the types of marketing tools they use. Findings show key differences among farmers in the way they market their crops. There is also strong evidence in the available literature that interest in price risk mitigation in crop marketing is on the rise among producers.

The Agricultural Contracting Update of 2005, conducted by the USDA's economic research service, highlights the growing use of contracting by field crop farmers to price crop outputs (Korb and MacDonald, 2005, pg 8). The report states that most agricultural production is sold in the *spot market* – where producers are paid for their products when ownership is transferred and prices are based on the market conditions at the time of sale. Even so, Korb and MacDonald state that *marketing contracts* – where producers and buyers agree on a pricing mechanism before ownership is transferred and typically before harvest – is growing in importance as producers seek to reduce output price fluctuations. While many observers agree that marketing conditions prior to 2005 fall short of capturing the range of price fluctuations since then, some observations in the report still likely hold.

One observation consistently shared throughout the literature is that forward marketing contracts, of various types, are used more widely by large farm operations than smaller ones. Korb and McDonald spent a considerable amount of effort defining farm size. The researchers evaluate size by valuing the entire operation's production or by production of a specific crop within the operation. The USDA study found that among *all* farms examined, only 22% of the corn crop produced was contracted, with the bulk being

sold in the spot market. Although, there may be wide ranges or regional differences to the amount of crop contracted.

Korb and McDonald also suggest farms that contract tend to earn higher returns, when compared to those using the spot market for pricing their production. They argue that production will continue to shift to larger operations where there will be an expansion of contracting coverage.

Size of an operation is not the only determining factor. Korb and McDonald find that farms that contract differ in important ways from those that do not, but there is little detail provided to separate contracting farmers from those who do not, other than by crop type and size. Subsequent observations since 2005 focus more on other factors that may determine a farm's likelihood of contracting.

An entire chapter of the Agricultural Income and Finance Outlook of 2009 is dedicated to the subject of differing marketing practices. Like the previous study, a leading indicator of contracting use among farming operations appeared to be the size of the operation as measured by gross sales (Harris, et al. 2009, pg 60). Unlike the previous study, the 2009 study finds that those operations that use contracting for risk management tend to have higher debt-to-asset ratios. Contracting, it would seem, is a priority to those farms that wish to insure their ability to re-pay long term debt and/or maintain cash flow.

Harris et al. examined what types of contracts or risk management tools farmers used. While the diversity of contracting types is limited in the study and not inclusive of new generation contracts, the research shows that farmers who use contracting also use other types of risk management products and services. These include the use of advisory

services, use of options, use of crop insurance, use of futures, and shopping for the best price. As it pertains to soybean and corn farms, farmers have a greater likelihood of using multiple tools of risk management when compared to other types of agricultural output. Given the increased volume of trading in corn and soybean futures, the number of advisory services, multiple crop insurance options, and a rapidly expanding line-up of contracts since the 2005 report (Korb and MacDonald) was conducted, these results seem reasonable. Contracting opportunities to farmers are on the rise in terms of awareness and accessibility.

Pennings et al. (2008) examined sixteen characteristics that affect a farms use of risk management tools. Advances in behavioral economics and psychological literature serve as the backbone for the way in which the study was conducted. The size of an operation had the most significant positive relationship with the use of risk management tools, such as using options and futures contracts (Pennings, et al., pg 50). However, the study found other significant factors such as a positive relationship with younger producers, internet access, and use of marketing advisory services. The research suggests that numerous factors determine a farm's use of risk management tools.

Determining what types of operations value risk management tools is critical to the purpose of our own research. The literature on specific contracts available to crop producers is generally lacking, as most research examines large geographic areas and typically does not focus on specific crop types. In terms of risk management, most researchers limit the scope to examining several categories, such as spot market use, contracting use, and crop insurance. Most of the literature only considers basis contracts, futures contracts, cash contracts, and deferred pricing contracts. But, as Korb and

MacDonald suggest, there is an increasing range of crop contracting types and opportunities, termed “non-traditional” or “new generation” contracts.

The latest article examining new generation contracts was by Alexander et al. in 2005. They examined changes among contracts between 2003 and 2005. They find that more research is needed to explore the range of contracts now available. Even so, Alexander et al. provide insight into the advantages of these contracts as identified by farmers. The biggest benefit of new generation contracts was that of automated execution (Alexander et al. 2005, pg 2). Those farmers surveyed indicated that emotions often guide their marketing decisions, where excessive optimism and/or pessimism can lead to pricing decisions near the lows in many instances. Another observation was that farmers expressed a lack of discipline in their marketing strategy at various times throughout the year. All of the producers surveyed agreed that using new generation contracts helps them with pricing decisions, and most generally agreed that net prices would likely increase if they used new generation contracts in pricing their crop. The study also suggested that high service fees hinder widespread acceptance of new generation contracts among all farmers.

Alexander et al. examined characteristics such as age, education, total acres farmed, willingness to accept risk, debt-to-asset ratio, and percentage of income attributed to livestock or specialty crops in relation to contract use. They found the only characteristics having a significant positive impact on contracting use were the debt-to-asset ratio and age. They suggest that those operations with a higher debt-to-asset ratio have a greater need to price outputs, while older producers may be more realistic in their attempts to “beat the market.” As for farm size, the study showed a significant increase from 2003 to 2005 in the number of large farms using new generation contracts.

CHAPTER III - CARGILL RISK MANAGEMENT AND FLEX DELIVERY

This chapter provides background information for examining a proposed sales territory in Western Iowa where Cargill AgHorizons may offer risk management services related to grain marketing. Some of the products and services would incorporate exchange and non-exchanged derived contracts (i.e. new generation contracts), futures, options, crop insurance, and a marketing advisory service. The goal of the research is to examine a selected area and gain information about the farms, their marketing styles, and their likelihood of doing business with Cargill.

In most cases, the types of risk management tools are only offered to existing Cargill grain suppliers (farms), where the supplier intends to physically deliver actual commodities to Cargill-owned facilities. The potential customer base of farms in this new territory is outside the normal footprint of Cargill's nearest AgHorizon's grain facility. An assets' footprint is defined as the area that price alone will pull customers. In other words, the business model consists of sales professionals offering risk management tools to farmers who would not normally deliver raw commodities to the AgHorizon's grain facility, but who may value using their wide range of new-generation contracts.

Because there is no physical grain handling facility within the territory, the only revenue stream offered will be non-traditional. Admittedly, most of the margin that Cargill AgHorizon's generates is by physically handling the grain. These 'traditional margins' are greater than the 'non-traditional margins.' The non-traditional margins are the service fees generated by selling risk management tools like proprietary non-exchange derived futures contracts. Management has observed that within the Aksarben Farm Service Group

(comprised of Eastern Nebraska and Southwest Iowa), non-traditional returns are growing relative to total returns. The business model of selling risk management tools to producers has created significant returns for both Cargill and the customer. As a result, the current use is trending higher within traditional asset footprints.

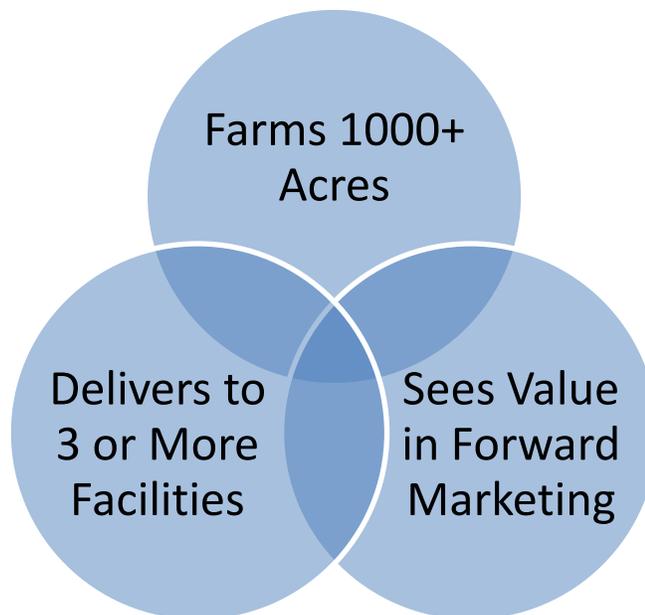
The Aksarben Farm Service Group (FSG) has pioneered an alternative business model that allows sales professionals to offer risk management tools to farmers who would not normally haul grain to a Cargill asset. The initial results are encouraging, because more and more farming operations on the fringe of traditional asset footprints are using a diversified range of Cargill Risk Management (CRM) products via the Flex Delivery Program. The business model, i.e. Flex Delivery, was created as a means for specific sales professionals, called Farm Marketers (FMs), to overcome buying objections from their farmer customers. Aksarben's Flex Delivery Program allows grain to be bought off the farm and priced using a futures pricing mechanism managed by Cargill's CRM division. Revenue is created by collecting service fees on a per bushel basis after the grain is delivered. The purchased grain is then delivered to a third-party facility on behalf of Cargill.

Under the Flex Delivery Program, Cargill buys the grain directly from the farmer via a new-generation contract, etc., and sells it to any one of a number of various third-party facilities. The Aksarben FSG seeks to minimize its risk exposure in dealing with third-parties. The most practical way to limit exposure has been a thorough examination of the facilities' financial statements. The risk exposure is analyzed to establish a per-bushel credit limit for a given facility. Cargill's management team also defines the level of credit, or the bushel quantity, a facility may have in their possession at any one time with Cargill

without having received payment. Grain sales to third party facilities will be halted if there is a risk of over-extending the line of credit. Quick payment and a healthy balance sheet ensure the best relationship.

Before conducting a financial analysis of a third-party facility, there is interest in determining what customer demand may be in a purposed territory. Based on current knowledge of existing customers, a customer profile can be determined. Figure 3.1 demonstrates the farm characteristics exhibited among current users. Customers who farm more than 1000 acres, deliver grain to 3 or more facilities, and place value on forward marketing a sizable amount of their crop tend to be the highest users of Cargill's products. Prior experience of sales professionals indicates that one criterion alone is typically not enough to entice usage of Cargill's Flex Program, but only when all three characteristics are shared, use increases.

Figure 3.1: Flex Customer Profile



CHAPTER IV - METHODS OF ANALYSIS

In terms of geography, a specific block of counties within the Eastern edge of Aksarben's Farm Service Group was examined because it appeared to have a high concentration of ethanol facilities and large farming operations relative to other areas. Figure 4.1 highlights the area, where the circle indicates the nearest Cargill AgHorizons asset footprint and third-party destinations are defined by the icons. As verified by USDA production numbers, the region also has higher average yields when compared against the national average (Figure 4.2). The name of this proposed territory is Flex 6 and is located in West Central Iowa.

Figure 4.1: Purposed Territory

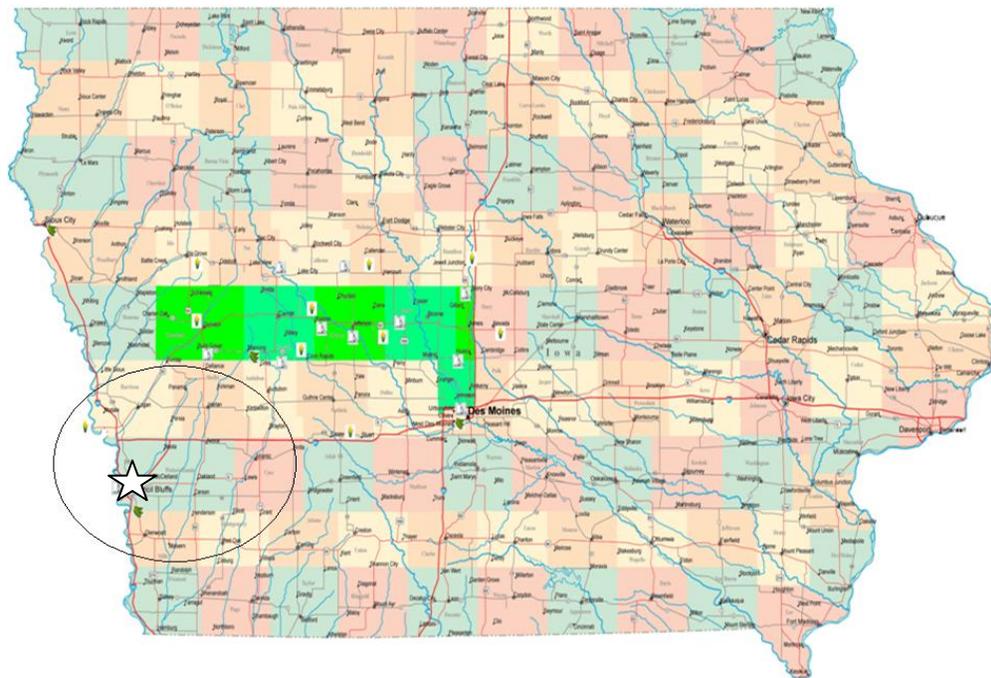
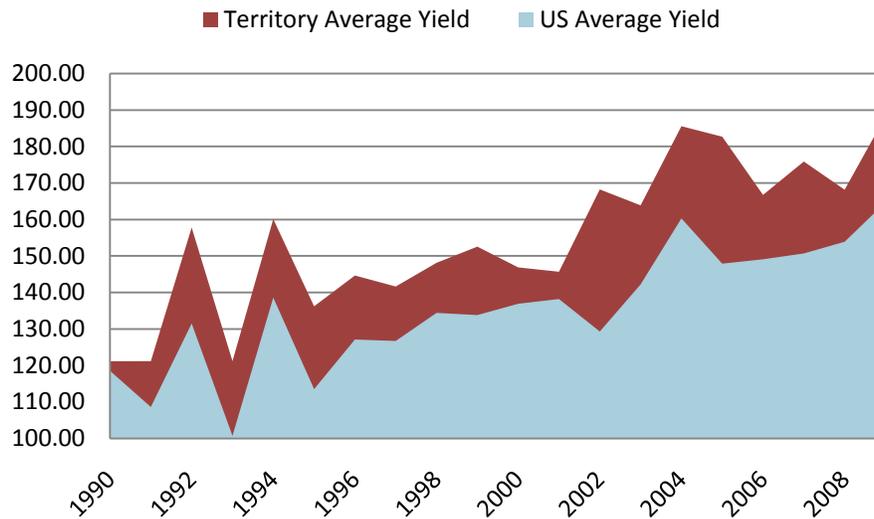


Figure 4.2: Average Corn Production in Purposed Territory



Starting with the farmer population base, the potential customers were sorted by total acres farmed. From information provided by the database, www.farmmarketid.com, 188 producers within the region farm more than 1000 acres. In previous research, a determining factor of farmers using risk management tools for grain marketing was that of acres and/or gross sales.

A face-to-face survey was given to random farmers from within the selected the population base of 188 producers (Figure 4.1). The survey examines the variables indentified by Pennings (2008) to determine a farmer's likelihood of using risk management tools. In addition to looking for the criteria defining a Flex Delivery candidate, the survey also asked questions designed to assist sales professionals in making any follow-up sales calls (Figure 4.3).

To start, the surveyor recorded the customer name along with the interview date (Figure 4.3). The database providing surveyor information often lacked a contact name, as

many farms operate as a partnership or corporation. Therefore, it was the responsibility of the surveyor to gather information as to who the decision maker was for the farming operation. The age of operator was collected as well providing useful demographic information in addition to uncovering one of the variables highlighted by Pennings et al. (2008) positively associated with forward marketing.

The surveyor asked for the combined acres of the operation to determine size along with information on the crop rotation (Figure 4.3). The later part of the question was to uncover any geographic tendencies inherent to the region, whereas the size of the operation is theorized to have a positive relationship to Flex Delivery usage. To uncover other geographical tendencies, the surveyor also asked what portion of the farmable acres, if any, were irrigated, what average yields were, if the operation possessed livestock and, if so, what portion of the crop went to on-farm feed usage. Knowing the percentage of on-farm storage, in addition to highlighting any geographic similarities, helps determine the best types of various risk management tools the farmer may value most. The completed surveys, then, should not only be viewed as a tool to collect data for the purposes of determining customer demand, but also demographics, geographic tendencies, and as a useful tool to better understand potential customers.

Those surveyed were asked not only how many facilities they deliver grain to, but also the name of these facilities (Figure 4.3). The more facilities a farming operation uses is assumed to have a positive relationship with demand for the Flex Delivery Program, but knowing the names of the third-parties can assist Cargill if it decides to further pursue staffing the territory. This provides Cargill's management team a starting point for uncovering what facilities are a priority for establishing a working Flex Delivery

relationship with based on the frequency of use by those surveyed. Using this method, Cargill avoids unnecessarily requesting sensitive financial information from grain facilities not widely used by the targeted majority population.

Those surveyed were also asked why they do business with the facilities they listed (Figures 4.3). Why the customer may do business at a given grain facility is important to understanding any loyalty issues that may occur as objections to using Cargill's risk management tools or the Flex Delivery Program. Along with the number of facilities, their names, and the reason they do business there, those surveyed were asked how quickly they can expect payment and if they ever experienced issues with receiving payment. As with prioritizing which facilities Cargill may need to examine for financial reasons, this question was asked to uncover what facilities, if any, Cargill may want to avoid.

The surveyed population was also asked how much of the crop they typically forward-market; specifically, how much they typically sell before the crop is planted (Figures 4.3). It is theorized that the greater the percentage the more likely the farming operation places value on forward marketing. As a subset of that question, the surveyor asked by what means the farms do this. Unlike the percentage forward marketed, the means to answer this question was not listed on the survey. Instead, blank space was provided to encourage any elaboration on the subject. Not only does the question seek to understand current marketing practices, but also who may be providing them and uncover any competition or similar services. The next question on the survey asks the direct question of whether or not there are any on-farm marketing services in the area; which is the business model generally favored by Cargill AgHorizons.

The question relating to the future growth of the operation was asked in an effort to uncover any possible issues that may soon be effecting the operation, such as a planned retirement or addition of a new family member to the farming operation (Figure 4.3). It is assumed that most growth-oriented farming ventures may be more willing to explore new means of risk management. Conversely, if an operation is not growth-oriented and not nearing retirement, it may mean that they are in need of finding alternative risk management tools to better secure financial well-being. Regardless of the way in which the question was answered, the knowledge is useful to a sales professional calling on the customer as a means to position various risk management solutions.

The surveyor asked another direct question to the customer in regards to their interest in learning more (Figure 4.3). Asked if they would find value in learning more about Cargill's products and services, those surveyed indicated if they would like a follow-up call to discuss using Cargill's risk management tools and the Flex Delivery Program. Not only does this help to uncover the potential demand for the territory, but also prioritizes those whom a sales professional will call on first. The last question, relating to the working knowledge a customer has of grain marketing, helps indicate how a sales professional may prepare for following up with a survey participant.

Most of the questions on the survey are dual purpose in terms of providing valuable information on the farmer as well as providing specific insight into how many farming operations may become valuable customers. Another reason for this approach to the research is that its methods are easily transferrable to other regions where there may be perceived interest in Cargill's Flex Delivery Program. The analysis can provide insight

into demographics, third-party facilities, and the demand for Cargill's products and services. The analysis of the survey is discussed in the next chapter.

Figure 4.3: Survey

Farm Name: _____ **Date:** _____

Main Decision Maker (if different): _____ **Age:** _____

Sole Proprietorship: _____ Partnership/w: _____ Corporation/w: _____

Current Acres Farmed: _____ Rotation%: _____

Irrigated%: _____ Dryland%: _____ APH YC: _____ APH YSB: _____

On-Farm Storage Ability: _____ Livestock: yes / no On-Farm Feed Usage%: _____

How many places do you currently haul grain to?	<u>Circle one</u>	1 2 3 4 5
How would you rate the size of grain facility you deliver to? <i>Please list those facilities:</i> _____ _____ _____		Very Large Large Medium Small Very Small
What is the leading reason you deliver to those locations? <i>Other:</i> _____		Distance Best Prices Best Service Relationship
For the facility that buys most of the grain, how quickly can you expect payment? <i>Please explain any payment issues:</i> _____ _____		0-3 Days 3-6 Days 6-9 Days 9-12 Days 12+ Days
How much crop do you typically forward market pre-plant? <i>What types of grain-marketing contracts have you used:</i> _____ _____ _____		0% 10-20% 20-30% 30-40% 50-60% More
Are there any on-farm marketing services in your area? <i>Who:</i> _____		YES / NO
How important is growing your operation? <i>Explain:</i> _____ _____ _____		Very Important Somewhat Important Neutral Not Important Nearing Retirement
Would you find value in learning about our products and services? <i>Explain:</i> _____		YES / NO

Do you feel you have good working Knowledge of Grain Markets: yes / no
Exp: _____

Other information: _____

CHAPTER V – DATA ANALYSIS

Within a 3 week time period in early 2010, 42 farms were surveyed. Only 2 farmers refused to take part in the survey. The surveyor identified himself as a Cargill employee hoping to explore the potential interest a prospect might have in learning more about the products and services the company offers. As for the customer demographics and tendencies, the average farmer was 46 years old, grew slightly more corn than soybeans, delivered grain to three or more locations based on distance, had the ability to store 68% of his crop, and marketed 30 to 40% of the crop before it was planted. Each of these variables will be discussed individually as they relate to demand for Cargill's Flex Delivery Program.

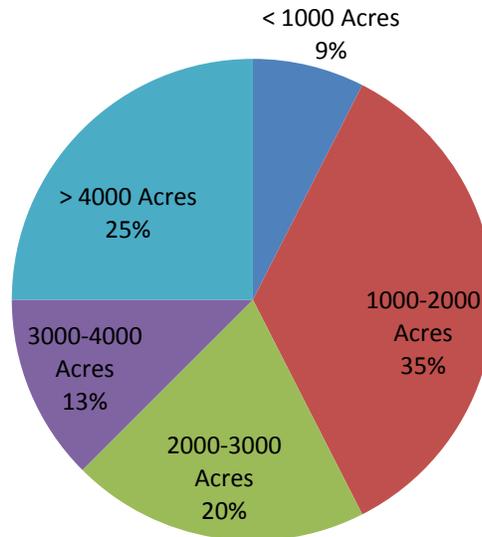
5.1 Size

The size of an operation is not necessarily defined the way it is in previous research. Instead of gross sales, total producing acreage is defined as a measure of size. More than half of those surveyed farmed more than 2,000 acres (Figure 5.1). The database used to indicate the number of acres farmed was, more often than not, *less* than what the farmer would tell the surveyor. This was useful information, causing one to question the data provided by the online service, and perhaps would cause one to use a different cut-off than 1,000 acres in identifying the potential market.

As the findings of Pennings et al. (2008) indicate, the larger a farming operation, the greater the likelihood one can expect to see in the use of forward marketing and positive correlations of the survey results support this hypothesis. The Flex Delivery Program,

using Cargill’s risk management tools, caters to farming operations seeking to mitigate price risk by way of forward marketing. Furthermore, the size of a farming operation is a fundamental characteristic of the Flex Delivery customer profile.

Figure 5.1: Acreage Size of Survey Population



5.2 Delivery Points

Farmers market to a number of delivery points with 80% of those who responded saying they typically deliver to 3 or more locations throughout the marketing year (Figure 5.2). In previously examined Flex territories, the number of delivery points is important. Because Cargill extends a per-bushel credit limit to each facility, it becomes problematic when accounts payable exceed the credit limits extended to these third-party facilities. To justify a position, a specific level of bushel volume is expected from the sales professional. The problem occurs when the bushel volume required gets funneled into relatively few

facilities with limited amounts of credit. In short, Cargill may require more bushels to be bought than credit available for a specific facility if all the bushels are set to be delivered into only a few grain facilities.

The best means to diversify the credit risk for Cargill is to have numerous facilities be part of the Flex Delivery Program. The value the survey provided was not only to present possible business partners but also to quantify the number of delivery points within the territory. With the survey results revealing that there may be up to 17 delivery points for farmers to use, and most farming operations delivering to three or more facilities, Cargill management can begin to reasonably speculate the amount of credit extendable to the entire territory. As a result, Cargill management should be better able to determine if there is the potential to manage the amount of volume with a delivery point because of conflicts with credit limits. To further examine this issue, the frequency of the named delivery points was also examined (Figure 5.3).

Figure 5.2: Number of Delivery Points Used by Farmers

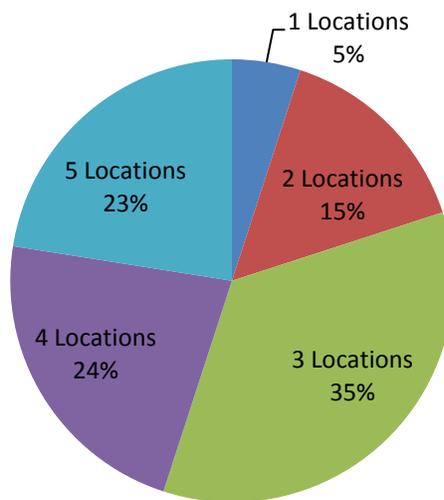
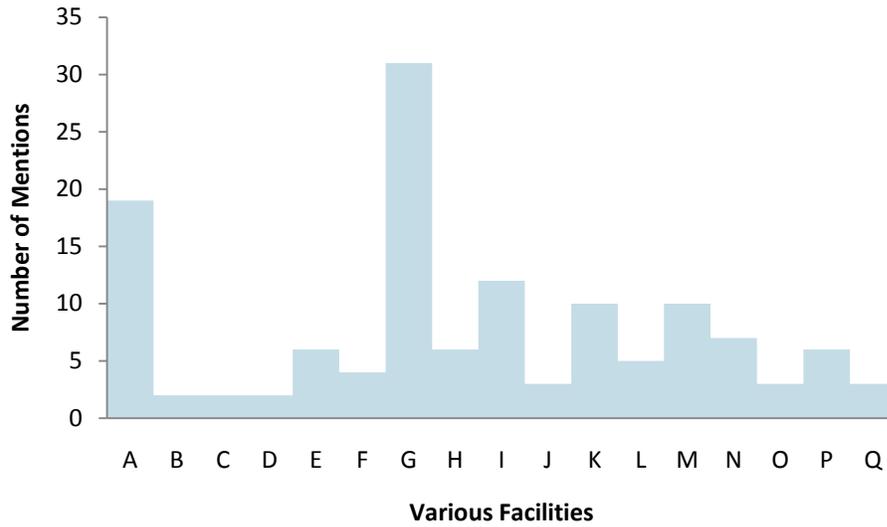


Figure 5.3: Frequency of Delivery Points



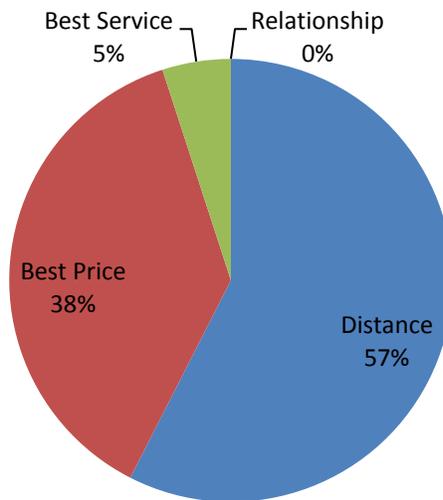
Having numerous delivery points for the customer offers diversification for Cargill, but it is also a benefit to the farmer. Past experience shows that having a high number of delivery points and, thus, a high degree to flexibility is of value to farmers because they can choose their delivery point based on logistics and price. To be clear, the farmer chooses the delivery point for his/her grain from a pre-approved list of Cargill “Flex” locations. Given that only a few grain facilities received a relatively high rate of being mentioned, Cargill may want to further examine the specific credit limits of these facilities to avoid any issues that may limit the growth of the Flex Program.

5.3 Facility Preference

The survey asked why grain was delivered to a specific facility. The most common answer was price (Figure 5.4). Only 5% of the population cited best service or personal relationship as the reason they do business with a grain facility. One of the farmer advantages of the Flex Delivery Program is to allow the farmer to select the delivery point

to whatever facility makes the most sense to the farmer. Many of Cargill’s new generation grain contracts use a futures pricing mechanism to price the grain for the farmer. Cargill carries the futures hedge on behalf of the farmer. So, the farmer is only subject to basis risk and can set the basis at any point prior to delivery at a destination of their choice (as long as that facility is pre-approved by Cargill). This option allows farmers to “shop” for the best basis level. Also, being price sensitive indicates that farming operations within this region may not be overly loyal to specific facilities and, thus, value the ability to use a different means of establishing a price for their grain like Cargill’s new generation grain contracts.

Figure 5.4: Facility Preference

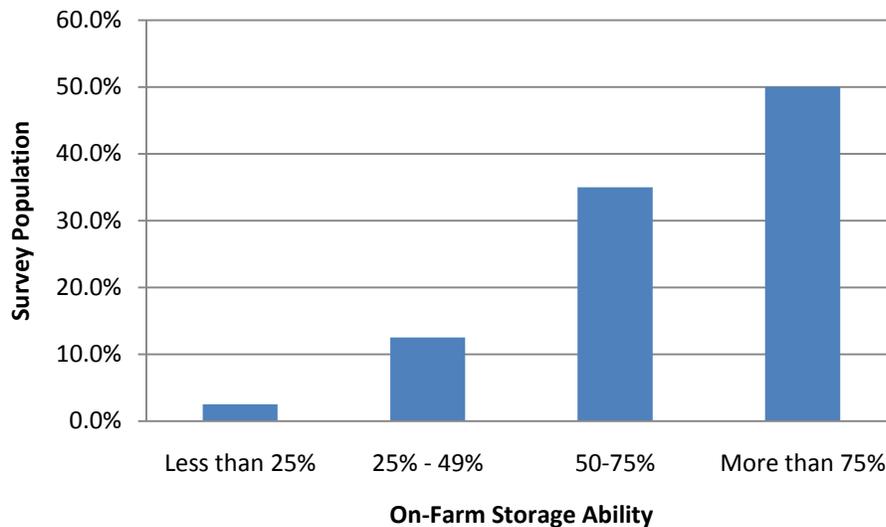


5.4 On-Farm Storage

About half of those surveyed said they have the ability to store more than 75% of their crop on the farm (Figure 5.5). This suggests that current fall delivery points are inadequate and that they exhibit insufficient ability to handle the size of the corn and soybean crop. Consistent carrying charges and basis appreciation among third-party facilities also likely play a role in incenting the farmer to store a high percentage of their

production. Regardless of the reason, Cargill’s Flex Delivery Program allows the farmer the ability to effectively hedge corn or soybeans and set basis to the destination of their choice. As mentioned, this presents an opportunity to the farmer to “shop” for the best basis price closer to the point of physical delivery so that farming operations can best utilize their storage ability. The Flex Program may fit nicely with the farmer’s ability to store a large portion of their crop.

Figure 5.5: Percentage of the Crop Stored on the Farm



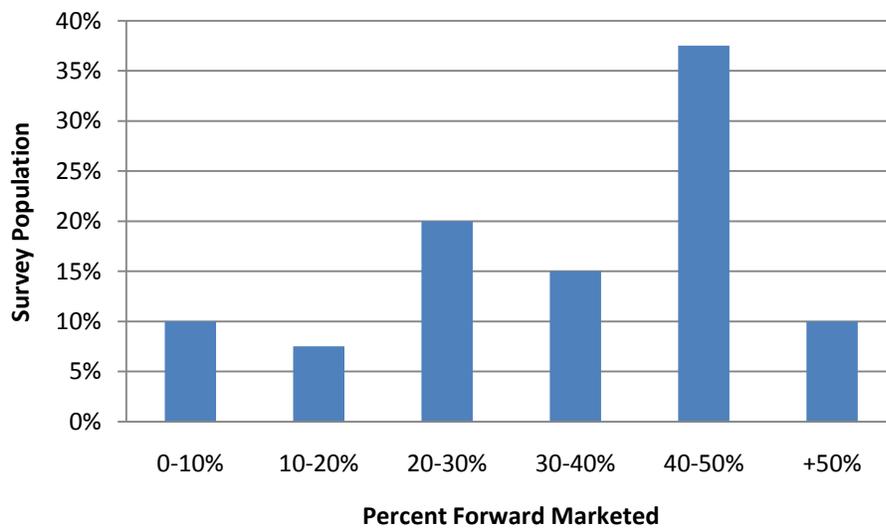
5.5 Use of Forward Contracts

Nearly half of the farmers reported that they would typically market around 50% before planting their crop (Figure 5.6). Many of those surveyed were asked about the method they use to forward contract grain and the vast majority answered with cash sales; in which, the futures price and basis are both established at the time of the sale. The use of No-Basis Established contracts, basis contracts, brokerage services (futures and options), or competing ‘new-generation’ contracts were seldom mentioned by the farmers surveyed. In the cases where a farmer did mention the use of forward contracting other than cash sales,

detail was gathered on who provided the service and, in many cases, how much the marketing products/services cost. Only 25% identified “on-farm” marketing services in the immediate area.

Cargill’s risk management tools and the Flex Delivery Program are best suited for farming operations who find value in forward marketing. Asking the question of how much of the crop is typically forward marketed provides one measure of the value farming operations place on forward marketing as a means of risk management. This hypothesis assumes, conversely, that operations not valuing the ability to forward market do not use this tool as a means to manage risk. The greater the amount a farming operation forward markets, the greater the likelihood the farm will find value in the Flex Delivery Program and Cargill’s many risk management tools. Furthermore, placing a high value on the use of forward marketing is a key characteristic of a Flex Delivery candidate.

Figure 5.6: Percent of the Crop Forward Marketed Pre-Plant

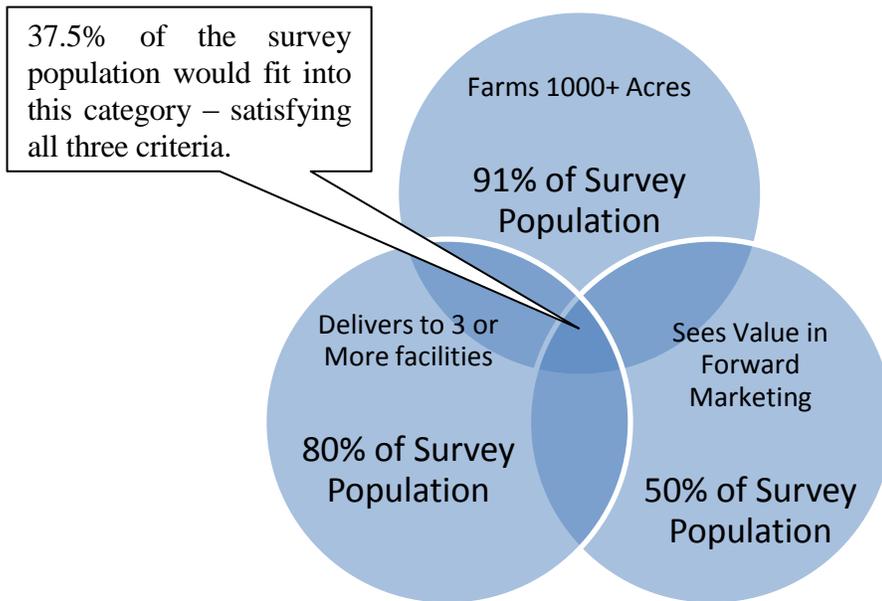


Farmers were asked if they had ever experienced payment issues from the grain facilities they currently work with. A scale was provided, in terms of the number of days the farmer typically has to wait to receive payment after the grain was delivered. Nearly all those surveyed said they receive payment 0-3 days after the grain is delivered. In addition, no one elaborated on any other issue such as price or discount discrepancies. This is important because Cargill, being the actual seller of the grain to the third-party facilities, takes all the risk that the farmer normally would accept in terms of getting paid in a timely fashion and making sure payments are correct. Another point is that quick payment is absolutely essential to keep the Flex Delivery Program liquid, otherwise the bushel credit limits may become maxed out and hinder the purchase and/or delivery of more grain until Cargill receives payment for bushels already delivered.

CHAPTER VI - INTERPRETATION OF RESULTS AND CONCLUSIONS

The results are useful for determining the potential customer demand. Using the profile of current CRM and Flex customers, a survey provided information on some of the largest farming operations within the purposed territory and their ability to fit within this profile. The survey found that 37.5% of farmers surveyed would fit within the diagram shown that represents the greatest common factors tied to Flex and CRM customers (Figure 6.1). However, this does not account for those customers who indicated they would not be interested in learning more about Cargill's program.

Figure 6.1: Estimated Flex 6 Customer Profiles



Considering this, 37.5% of the population may find value in using Flex Delivery and Cargill's risk management tools. Those who did not want to learn more about what Cargill had to offer differed from those who did in the following ways; they typically farmed more acres, possessed more storage, and were more heavily forward marketed.

Though 85% directly expressed interest in learning more from Cargill, not all fit the customer profile. However, the entire 15% who said “no” to any follow up all fit within the customer profile. This presents an opportunity to enhance the profile to be more reflective of Flex customers and suggests there are missing variables.

It is not clear what the leading reason was for those who declined to learn more may have been. Perhaps additional storage allows for more marketing flexibility, or that the increased size of the operation allows for more leverage when selling their crop, or that their marketing styles differ from the rest of the population. In future surveys, it would be useful to have the surveyor gather specific information as to why the farmer chooses not to learn more about the program. Not only will this help refine the Flex Customer Profile, but also help sales professionals offering Cargill’s products and services better understand the objections they may encounter.

The following table correlates the variables used in the Flex Customer Profile (Table 6.1). As the model assumes, all variables are positively correlated and seem to support the work of Pennings et al. (2008) in that acres, or farm size, is a useful indicator in predicting their use of forward marketing. Because 15% of the population were not interested in Cargill’s marketing tools or Flex Program possessed this trait, additional research may also involve surveying current Flex customers as opposed to surmising the variables from the experiences of the sales professionals offering the service. In doing so, information will possibly be collected to better enhance the sales professionals ability to sell the value of the Flex Delivery Program to farmer prospects.

Table 6.1: Correlations of Flex Profile Variables

	<i>Number of Acres</i>	<i>Number of Facilities</i>	<i>Percent Forward-Marketed</i>
Number of Acres	1		
Number of Facilities	0.22061	1	
Percent Forward-Marketed	0.1942	0.0556	1

In testing the statistical significance of the variables, there is more information to support the notion that larger operations forward market a greater share of their crop (Table 6.2). While larger operations make greater use of forward marketing, the number of facilities a farming operation delivers to is not an overly important means of determining the value they may place on forward marketing. Even so, flexibility in delivery points may present an opportunity to position the Flex Delivery Program to the largest operations who appear to place greater value on forward marketing.

Table 6.2: Statistical Significance of Flex Profile Variables

	<i>Number of Acres</i>	<i>Number of Facilities</i>	<i>Percent Forward-Marketed</i>
Number of Acres	n/a		
Number of Facilities	t of 1.39 significant at the 17.1% level.	n/a	
Percent Forward-Marketed	t of 1.22 significant at the 22.9% level.	t of 0.34 significant at the 73.3% level.	n/a

Collecting the survey information provided the opportunity to learn about who the decision-maker is in the farming operation, the best means of contacting them, and their

initial interest in learning more about Cargill's products and services. This information will be useful for new sales professional(s) that call on customers and significantly reduce their time spent "prospecting." The survey may also serve as a useful tool for other FSG's, besides Aksarben, for examining the possibility of expanding into new territories using the Flex delivery model. The analysis is easy to replicate, but the results will likely vary from geography to geography.

Additional surveys may find it useful to examine specific information regarding forward contracting. For example, it would be useful to know in what quantities a farmer typically sells in, such as 2,000 bushels or 10,000 bushels, as current Flex customers are required to sell a minimum 5,000 bushels of soybeans and/or 10,000 bushels of corn per transaction. Another point may be price as a limiting factor, as some producers may find Cargill's marketing tools cost prohibitive.

Adverse survey findings could potentially weaken the prospect of the Flex Programs' growth opportunities. Nevertheless, it is important to note that the responsibility of overcoming prospective customers' objections is the job of sales professionals. Their ability to do this may prevail over adverse survey findings. As for Flex 6, this means that the 15% who initially said "no" to any follow up may eventually become devoted customers. Knowing the reasons for the initial objection will present a useful tool for a sales professional to directly convey any value the program may have to reluctant producers.

The survey method has the ability to reveal other barriers to success that are outside of the sales professionals' expertise to affect. For example, a different geography may

reveal a relatively low number of possible delivery points, or uncover issues with a grain facilities ability to stay solvent, or if there is heavy saturation from a well established competing marketing program. The survey allows Cargill to examine areas of geographic interest with minimal risk, as contract workers can conduct the survey on behalf of Cargill and collect information valuable to company. This information can help management determine if the Flex Program may be a fit for a particular area, in addition to learning about geographic tendencies, farmer demographics, and grain flows directly from the operations the company seeks to serve.

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