Road to Success

AgriLIFE EXTENSION
Texas A&M System

FARM Assistance
Planning Solutions

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Foreword

For Texas agriculture to become more profitable and competitive in light of uncertain weather conditions, risky prices, and increasing production expenses, farmers and ranchers must be better able to weigh the risks and projected impacts of alternative decisions on their operations. In response to this need, the Texas AgriLife Extension Service specialists offer a whole farm and ranch computerized decision support system for long-term strategic planning decisions, called *Financial And Risk Management Assistance (FARM Assistance).*

Individual agricultural operations, using information specific to their business, can effectively assess the expected financial impact and finacial risks of proposed changes to their business. For example, producers can compare their cash flow risk under various plans, and view estimates of their plan's impact on net worth (wealth) 10 years down the road. They can also analyze whether the projected payoff from the plan is worth the risk of failure. In the past, management changes were evaluated based on gut instincts and average conditions. Texas producers have, at their fingertips, the ability to evaluate their plans (including the risks they face) with technical financial expertise. Those interested in taking advantage of this expertise should contact the FARM Assistance team toll free at 1-877-TAMRISK.

Executive Summary

Texas Agriculture 2007: Road to Success is intended to illustrate the results of the Texas AgriLife Extension Service's FARM Assistance program. Since its inception, the FARM Assistance team has conducted over 1,160 strategic farm and ranch analyses for Texas producers. Program participants represent nearly 2 million acres of productive crop and pasture land across the state.

The program's broadest impacts fall into two main categories. The first is helping individual producers evaluate strategic plans and alternatives for their operations. The average alternative evaluated for participants has a projected net worth impact of $23,000 per year. The second area of program impact is the ability to deliver information and analyses from an in-depth farm level database representing Texas agriculture to policy makers and indutry leaders. Using actual farm and ranch data, the FARM Assistance team has conducted research on important industry issues such as state tax policies and federal farm programs. Additional work has focused on identifying the characteristics of successful producers.

The data included in this annual report is a collection of approximately 200 of the most recent program participants. Results indicate that both financial success and financial stress are evident in all categories of agricultural production. However, tendencies of some groups suggest that crop farms have the highest level of projected financial success, compared to purely livestock and diversified operations. Among crop farms, producers with significant acres of corn and cotton seem to fare better than wheat and grain sorghum producers. A final note regarding irrigated crop production is worth highlighting. The highest yields do not always occur in groups that project the most financial success, suggesting that yields are not a defining characteristic of financial success.

The FARM Assistance Team

While FARM Assistance is technically a "computerized decision support system" founded on the capacities of a financial forecasting model, the real value of the service is in the individual specialists who conduct the analyses and deliver the information in a professional format. FARM Assistance is not software; rather, it is a service provided by a technical analyst.

To find out more or sign up for the FARM Assistance program, look us up on the web:

http://farmassistance.tamu.edu

Or contact the FARM Assistance specialist near you:

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806-677-5667
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The FARM Assistance Team

Dr. Steven Klose

Steven L. Klose is an Assistant Professor and Extension Economist in the Department of Agricultural Economics at Texas A&M University. Dr. Klose is Co-coordinator of the FARM Assistance program, supporting the broad Texas Risk Management Education Program efforts of the Texas AgriLife Extension Service. FARM Assistance is designed to provide strategic decision information to unique and diverse Texas agricultural operations. Building on the department's solid foundation of farm level simulation modeling, Steven is responsible for the research, design, and development of the FARM Assistance model. Dr. Klose is also a member of the Agricultural and Food Policy Center and works with this group in the areas of applied policy research and farm level simulation modeling. Steven graduated from Texas A&M University with a B.S. in Agricultural Economics in 1992. He also received M.S. and Ph.D. degrees in Agricultural Economics from Texas A&M in 1995 and 2001.

Dr. Joe Outlaw

Dr. Joe Outlaw is a Professor and Extension Economist in the Department of Agricultural Economics at Texas A&M University. He also serves as the Co-Director of the Agricultural and Food Policy Center (AFPC) at Texas A&M University. In this role, Dr. Outlaw frequently interacts with members of Congress and key agricultural committee staff to provide feedback on the likely consequences of agricultural policy changes. Dr. Outlaw continues to serve as the Co-coordinator for the Financial and Risk Management (FARM) Assistance program. He received his B.S (1987), M.S. (1988), and Ph.D. (1992) degrees from Texas A&M University, all in Agricultural Economics.

Dr. Greg Kaase

Greg Kaase is an Extension Program Specialist – Risk Management with the Texas AgriLife Extension Service located in College Station. Kaase joined the Texas A&M System in October 1992 when he was hired as a County Extension Agent in Milam County. Kaase also served as the 4-H Coordinator in Brazos County from 1994-1997 and as the County Extension Agent – Agriculture in Haskell County from 1997-1999. His position as a Risk Management Specialist became effective in February of 1999. Kaase holds a bachelor's degree in Animal Science, a Master's degree in Agricultural Education, and a Ph.D. in Agricultural Education from Texas A&M University. His activities focus on assisting producers in measuring risk and understanding the economic impacts of alternative risk management strategies, new technology, and changing agricultural policies.

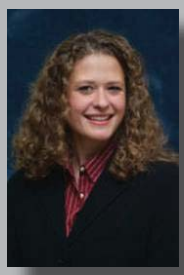
The FARM Assistance program has made us aware of the strengths and weaknesses of our farming and ranching operation. The strategic analysis provides the information we need to make sound decisions that increase our profitability.

-Lee Gibson, Moore County Producer

Jason Morris

Jason Morris is an Extension Program Specialist - Risk Management with the Texas AgriLife Extension Service located in College Station. Originally from Chapman Ranch, Texas, Jason has been rooted in the agricultural sector all his life through his family farming operations, which included cotton and grain sorghum production as well as cotton ginning activities. His involvement in these operations served as the catalyst for Morris' interest in both agriculture and risk management. Jason holds a Bachelor of Science degree in Agricultural Economics from Texas A&M University as well as a Master's degree in Land Economics and Real Estate from the Mays Business School. His current activities focus on assisting producers in measuring risk and understanding the economic impacts of alternative risk management strategies, new technology, and changing agricultural policies on existing production operations.

Melissa Jupe



Melissa Jupe is an Extension Program Specialist - Risk Management with the Texas AgriLife Extension Service located in College Station. Her extension education activities focus on assisting producers in measuring risk and understanding the economic impacts of alternative risk management strategies, new technology and changing agricultural policies on existing production operations. Melissa holds a Bachelor of Science degree in Agricultural Development and a Master of Agribusiness degree from Texas A&M University.

Nicole Gueck

Nicole Gueck is an Extension Program Specialist – Risk Management, with the Texas AgriLife Extension Service based in College Station. Nicole joined the FARM Assistance team in February 2008 after seven years in private industry. Her extension activities focus on helping producers understand the financial performance and economic impacts of alternative risk management strategies on existing operations. Nicole's career experience includes five years of risk management consulting and two years in commodity marketing. She has worked with a wide array of agricultural producers (horticulture, grains, cotton) both inside and outside the state of Texas. Nicole received a Bachelor of Science in Animal Science (2000) and a Master's of Agribusiness in 2005, both from Texas A&M.

The FARM Assistance Team

Mac Young

Mac Young is an Extension Program Specialist - Risk Management for Districts 11 and 12 with the Texas AgriLife Extension Service and is based in Corpus Christi. Young joined the Texas A&M System in April 2005. He previously served as an agricultural economist for the Federal Reserve Bank of Dallas and spent 19 years with the Farm Credit Bank of Texas in Austin. Mac holds a Bachelor's of Science and Master's of Science in Agricultural Economics from Texas Tech University. His current activities focus on assisting crop and livestock producers in measuring risk and understanding the economic impacts of alternative risk management strategies, new technology, and changing agricultural policies on their operations.

Wade Polk

Wade Polk is an Extension Economist, Risk Management, with the Texas AgriLife Extension Service, based in San Angelo. Polk joined the Texas A&M System in June 2000. He holds a bachelor's degree in Agricultural Economics from Texas Tech University and a Master's degree in Agricultural & Applied Economics from Texas Tech University. Polk's Extension and applied research programs focus on working with producers in measuring risk and understanding the economic impacts of alternative risk management strategies, new technology, and changing agricultural policies.

DeDe Jones

DeDe Jones is an Extension Economist, Risk Management with District 1 of the Texas AgriLife Extension Service based in Amarillo. DeDe joined the Texas A&M system in October 2000. She holds a bachelor's degree in Agricultural Economics and an M.B.A. in Marketing from Texas Tech University. Her activities focus on analyzing the financial performance and associated risk of alternative financing, investing, and operational decisions for crop and livestock producers in the Panhandle.

Patrick Warminski

Patrick Warminski is an Extension Economist, Risk Management with District 1 of the Texas AgriLife Extension Service based in Amarillo. Patrick joined the Texas A&M system in March 2007. His activities focus on analyzing the financial performance and associated risk of alternative financing, investing, and operational decisions for crop and livestock producers in the Panhandle. He holds a bachelor's degree in Agricultural Economics from Texas Tech University and a master's degree

"Most businesses would have a paid staff member to do this type of detailed analysis. Thanks to FARM Assistance, I can afford this type of professional service."

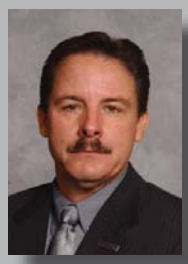
– Kevin Huffman, McLennan County Producer

in Agricultural Business and Economics from West Texas A&M University.

Jay Yates

Jay Yates is an Extension Economist - Risk Management with the Texas AgriLife Extension Service based in Lubbock, Texas (District 2). As the risk management specialist in District 2, his activities focus on analyzing the financial performance and associated risk of alternative financing, investing and operational decisions for crop and livestock producers in the South Plains. Yates re-joined the Texas A&M System in April 2002 after a 15-year absence. Previously he served with the Center for Farm Financial Management at the University of Minnesota, the National Grain Sorghum Producers in Abernathy, Texas, and spent 12 years farming in southwestern New Mexico. He graduated Summa Cum Laude in 1983 from Tarleton State University with a B.S. in Agricultural Economics. He received his M.S. degree in Agricultural Economics in 1985 from Texas A&M University

Jeff Pate



Jeff Pate is an Extension Economist – Risk Management with the Texas AgriLife Extension Service based in Lubbock, Texas (District 2). Pate joined the Texas A&M System in August of 2005. His activities focus on analyzing financial performance and measuring alternative risk strategies for area producers in cooperation with the Texas Alliance for Water Conservation demonstration project. Prior to his current position, Mr. Pate worked in the banking industry, first with Security Bank, and then with City Bank. He also spent 12 years farming in the Lubbock area, after a 10 year period of teaching Agriculture Science. He holds a Bachelor of Science and a Master of Education degree from Texas Tech University in Agriculture Education.

Natalie Outlaw

Natalie Outlaw is a Systems Analyst - Risk Management with the Texas AgriLife Extension Service. Natalie joined Extension in February 1999. She holds a bachelor's degree in Business Administration - Management Information Systems from Texas A&M University. Prior to her current position, Natalie worked in the Agricultural and Food Policy Center at Texas A&M.

Candice Foster
(no picture available)

Candice Foster is an Office Assoicate with the Texas AgriLife Extension Service based in College Station, TX Candice joined the FARM Assistance team in September 2006 after earning her Bachelor of Science degree in Agricultural Leadership and Development from Texas A&M.

Program Description

Program Background

In 1997, the Texas AgriLife Extension Service was provided funds from the 75th Texas Legislature to develop a pilot risk management education program to address increased financial and marketing risk, as well as the already high level of risk associated with production agriculture in Texas. The pilot program region included the Texas Panhandle, South Plains, and Rolling Plains. The initiative effort was expanded to cover the entire state of Texas the following year.

The program, referred to as the Texas Risk Management Education Program (TRMEP), was designed to assist Texas farmers and ranchers in better identifying the sources of risk in their operations, to inform producers of how to use available tools and/or strategies for managing risk, and to help producers quantify the financial impacts of alternative risk management strategies. As a part of TRMEP, the FARM Assistance program was born.

The FARM Assistance team conducted 17 focus group meetings in the pilot areas with groups of producers, lenders, and agribusiness interests. The meetings were held to determine the sources of risk they, or their clientele, considered the most critical for their operations and what capabilities would enable a computer-assisted decision tool to aid them in making better management decisions.

FARM Assistance is best described as a computerized decision support system. The computer model itself was built on a foundation of more than 20 years of research. Agricultural economists within the Texas A&M University System have developed and perfected methods in risk analysis and in simulating the financial future of an agricultural production firm. Through FARM Assistance, these capabilities have been extended to provide farmers and ranchers in Texas with sound decision-making information.

Program Description: Process

Extension specialists work with producers one-on-one, so the entire FARM Assistance analysis is an individualized process. Before the process begins, program subscribers are asked to do a little homework by gathering some paperwork. The required data is readily available from crop insurance agents, the Farm Service Agency (FSA) office, accountants, and loan officers. Often the information needed has already been compiled in order to obtain financing. The producer's cost of the FARM Assistance analysis includes the time spent gathering data, the time spent with the Extension specialist, and a subscription fee of $250 per year.

The analysis begins with an initial data collection meeting and can typically be finalized in two subsequent meetings. The information collected in the initial meeting is used to develop a preliminary baseline projection for the operation. In the second meeting, the Extension specialist and the subscriber review the input data, verify preliminary results, and develop any alternative strategies to be analyzed. Finally, in a third meeting, the Extension specialist will deliver and explain the FARM Assistance analysis report.

The total time required for this process depends on the complexity of the operation, the completeness of a subscriber's information, the subscriber's schedule, and the specialist's schedule. While everyone is different, the typical time subscribers spend in a session with the specialist is 3-5 hours for the initial meeting, 2-3 hours for the review, and 1-2 hours for the final report delivery.

Program Description: Analysis

A key objective of the FARM Assistance analysis is to compare and contrast the expected outcomes of different strategic actions for a farm or ranch by conducting a "what if" scenario. This type of analysis is often referred to as investment analysis or capital budgeting. The idea is that the farm or ranch manager has a set of capital resources and investment opportunities at his disposal. The key question is: What is the best plan to follow given my current situation as well as the opportunities and risks that I face?

An investment analysis is typically focused on three main issues, **financial profitability, financial feasibility**, and **risk**. The first is the issue of which plan is higher profitable or beneficial, that is, which will lead to more net worth in the end. A more profitable plan can also be one that provides for a greater standard of living along the way. The issue is whether the plan is feasible. Will it cash flow or is it likely to fail? Finally, the risk associated with both of these measures is a critical factor the producer should consider when making a strategic decision.

The projected change in the financial position of a business is a significant indication of the plan's profitability. For this reason the analysis will often focus on the change in real net worth over time and compare the projected ending real net worth of each alternative. Pointing out the annual cash position and the probability of cash shortages highlights the feasibility of each plan.

Again, this analysis is intended to provide information to support the decision-making process. It is not intended to make a decision for you. Because the FARM Assistance analysis compares the ranges of possibilities for different strategic actions, it is not always clear that one plan is better than another. It may be that one plan is expected to generate more net worth, but it is less feasible in terms of cash flow. In other cases, an alternative plan may have a higher average net worth but more downside risk. Each subscriber must also weigh other factors in their decision such as the level of work or stress associated with a particular strategic plan. One of the primary benefits of the FARM Assistance program is the individual consultation and explanation provided by the Extension specialist. The specialist is able to provide insight into the financial health of an operation that leads to more objective decision-making and greater peace of mind.

The FARM Assistance analysis will make no recommendations. The decision made is up to the individual and will depend on personal preferences and the level of risk each individual is willing to take. The purpose of the FARM Assistance program is to objectively present the information that will be the most valuable to subscribers as they make their business decisions.

Program Description: Projection

The core of the FARM Assistance decision support system is a ten-year financial and economic projection of the farm or ranch assuming a specific strategic plan of action (long term plan of operation). The initial projection is called the "baseline." The baseline is intended to give the subscriber a sense of where the business may be headed financially, and to uncover potential strengths and weaknesses in the operation. The baseline also provides a benchmark against which to compare projections of alternative strategic actions.

The process begins with information provided by the subscriber, describing the activities and current situation of the farm or ranch, being input into the computer program. The program then generates an economic environment in which the farm or ranch operates over the next ten years. The economic environment consists of specific factors such as prices, yields, inflation, interest costs, etc. *In no way are we suggesting that we know exactly what the economic conditions will be for the next ten years.* However, a great deal of scientific research and expertise are gathered annually by the Food and Agricultural Policy Research Institute (FAPRI) and the Agricultural and Food Policy Center (AFPC) research teams to develop a projection specifically for agriculture over the next ten years.

This single projection is only one of the many possible outcomes that could happen over the next ten years. Simply put, the future is risky. The unique advantage of the FARM Assistance projection is that it illustrates the risk associated with the future financial success of the business. The process of simulating the operation's strategic plan over the next ten years is actually repeated 100 times. During each repetition the operation faces a different set of prices and yields. The 100 different possible futures are developed using tested statistical methods so that the risk reflects the past conditions experienced by the farm or ranch and the forecasting expertise of the FAPRI / AFPC projection.

The result is 100 potential financial outcomes. In this sense, the FARM Assistance projection is not a single projection, rather it is a picture of the range of possible outcomes that a farm or ranch could expect to face over the next ten years. Using this range, the analysis describes the risk in the financial future of a farm or ranch.

The Big Picture

The Texas A&M University System serves the people of Texas through teaching, research, and extension. The advantage of the land grant system is that each of these three efforts support and compliment the other two, making each stronger and more valuable than if the effort stood alone.

FARM Assistance is a prized component of the Texas AgriLife Extension Service – Agricultural Economics program unit. While FARM Assistance is fully an Extension program, it is an excellent example of the partnership spirit that is the purpose of the land grant institution.

Partnering with the Texas Agricultural Experiment Station

The FARM Assistance program was built on a foundation of more than 20 years of research. Agricultural economists within the Texas A&M University System have developed and perfected methods in risk analysis and in simulating the financial future of the agricultural production firm. These capabilities are now being extended to provide farmers and ranchers in Texas with sound decision-making information. FARM Assistance in turn supports Texas A&M University System research activities by gathering valuable insights to the "real world" issues that producers face on a daily basis. These insights help identify and direct research topics, and the individual producer data collected through the FARM Assistance process is available to help answer critical research questions.

Partnering with Texas A&M University

Participants in the FARM Assistance program benefit from interacting with specialists and professors connected to the teaching programs at Texas A&M University. Management, finance, accounting, and economic concepts taught in the classroom are highly relevant and beneficial to the farm or ranch manager. Classroom instruction at Texas A&M University is also improved through the insights and real world issues experienced through working with individual producers. Because of the University system's interaction with the agricultural industry, students are better prepared for jobs in the industry.

Serving Texas Agriculture

The broad objective of the FARM Assistance program is to improve decision-making in and for the agricultural industry of Texas. To that end, FARM Assistance focuses on both the individual producer and the entire agricultural economy of Texas.

Serving the Individual Producer

One of the two main functions of the FARM Assistance program is to provide individualized analytical service for agricultural producers in Texas. FARM Assistance provides the decision maker(s) of an agricultural operation with a 10-year financial projection of the entire operation. It is a unique tool, in that it includes all of the following features:

1. The FARM Assistance projection includes the reality of **risk** associated with agricultural production and prices;
2. The FARM Assistance projection is **specific** to an individual operation;
3. FARM Assistance provides a **long-range** (10-year) financial outlook; and
4. A **professional analyst** conducts and delivers the FARM Assistance program.

The system works to help farmers and ranchers plan for their financial future and the risks they face. Unfortunately, many producers operate their farm or ranch year after year not knowing if their business is sustainable over a long period of time. By using the FARM Assistance system, a producer can gain valuable insights into the feasibility, profitability, and

"FARM Assistance is the kind of analysis and information needed to keep Texas agriculture on top of its bottom line."

-- Billy Reed, Dawson County Producer

overall viability of the operation. A formal financial outlook can also ease or prompt valuable communication between the manager and family members, partners, or creditors.

The system also has the powerful ability to provide decision-making information. Farmers and ranchers face a risky business environment in which they must make critical and complex decisions that affect their financial stability and the future livelihood of their business and family. Unfortunately, the information that producers typically use to make critical decisions is inadequate. For years, farm and ranch managers have based decisions on traditions, instincts, advice from neighbors, or generic advice from experts. While these factors should not be ignored, they also should not be the sole basis for critical business decisions. Some managers have the skills to "pencil out" a particular decision with accounting, finance, and economic concepts. Even in these situations, it is difficult to evaluate the full implication of strategic decisions and plans over multiple years. More importantly, these analyses do not consider the risk in future prices and production.

FARM Assistance fills the information gap, by narrowing down the effect of an alternate plan or strategy to the bottom-line cash flow, profit, and equity impacts. Using the FARM Assistance decision support system, producers now have more and better information than they have ever had to make strategic decisions and formulate viable business plans.

The Big Picture

Supporting the Agricultural Industry

While FARM Assistance has tremendous benefits for the individual subscribers who participate, it also has unlimited potential to support the entire agricultural economy of Texas. As a result of conducting over 1,160 analyses across the state of Texas, an extensive database has been developed portraying the wide range of operations that exist in Texas agriculture. While the individual data remains confidential, the aggregated data can provide priceless information and research capabilities to aid federal and state policy makers. The aggregate data is also beneficial to the individual producer because it identifies the characteristics and factors that make some producers more successful than others. The following are a few examples of the broad benefits and capabilities of the FARM Assistance database:

Farm Bill research – During the debate process leading up to the passage of the 2002 Farm Bill, the FARM Assistance team in partnership with the Agricultural & Food Policy Center (AFPC) and the Texas A&M University System provided critical analysis to U.S. Representatives from Texas regarding the potential impact of farm policy provisions on the farmers and ranchers of Texas.

State Tax Policy – In 2006, the state legislature again took up the issue of school finance and related tax alternatives. Texas agricultural leaders in the legislature and commodity and livestock organizations called on the FARM Assistance team to evaluate specific proposals and the value of current exemptions that benefit the agriculture industry. The FARM Assistance database will continue to be a valuable resource for producer organizations and lawmakers in future years.

Identifying the Successful Producer – Like any other type of business, farmers and ranchers in Texas operate with varying degrees of financial success. Participants in the FARM Assistance program have access to reports that enable them to compare their operation to similar farms or ranches in Texas. In addition, Extension specialists have begun and continue to research the extent to which various business characteristics and factors are related to financial success.

The trade-off relationship between risk and profits – One of the more unique aspects of the FARM Assistance program is the ability to analyze financial performance while accounting for production and market risk. Extensive information and research is available concerning the relationship between the risks and returns associated with investing in stocks, bonds, or mutual funds. FARM Assistance creates the data that can explain the same relationships as they occur in agricultural production. The risk vs. return line of research has the potential to help producers identify opportunities to improve profits without taking on too much risk, or conversely, to reduce their risks without giving up too much return.

"The FARM Assistance program is probably one of the best investments a farmer can make to evaluate the present and to project his future financial status."

– Ed Ermis, Refugio County Producer

Other Activities

In addition to performing individual analyses, FARM Assistance Program Specialists support and take part in many other programs and activities that are beneficial to the agricultural producers of Texas. One example of the broader impact of our team is our partnership with two new projects established by the Texas Water Development Board in late 2004. The Texas Alliance for Water Conservation (TAWC) managed by Texas Tech University and the Agricultural Demonstration Initiative operated by the Harlingen Irrigation District (ADI) are on-going efforts designed to identify and demonstrate the long-term viability of water conservation practices. FARM Assistance has partnered with both projects to conduct the economic evaluation of the site demonstrations on a commercial scale.

FARM Assistance specialists also contribute to many other Extension programs that include: Tomorrow's Top Agriculture Producers (TTP), Master Marketer, Return to the Farm (RTTF), QuickBooks Pro™ trainings, and general educational meetings across the state.

In addition to helping today's farmers and ranchers, FARM Assistance also supports the farmers and ranchers of the future. Each year we host the State 4-H Roundup Farm and Ranch Economics contest where 4-Hers present their ideas for economic growth in the farm and ranching industry. This year, we hosted thirteen different teams from across the state. Contestants give their presentations before a panel of three judges, typically agricultural economists and FARM Assistance faculty. Each team is judged on their style, presentation, originality, subject matter, achievement of purpose, and their ability to answer questions from the judges. Certificate and money awards are given for 1st through 3rd place. Congratulations to the 2007 Farm and Ranch Economic contest winners: 1st place, Jarrett Howard and Clay Stanford from Nolan County; 2nd place, Paul Goetze from Donely County; and 3rd place, Karla Glass and Eric Schwertner from Runnels County. Special thanks to the Stiles Farm Foundation for supporting the State Farm and Ranch Economics Contest and donating the award funds.

The FARM Assistance program also holds informative meetings where and when necessary to keep our producers up-to-date on current issues and policies.

Results and Impacts

FARM Assistance has been used to evaluate all types and sizes of crop and livestock operations. Over 2,600 alternative scenarios and their associated risks have been analyzed for individual producers statewide - representing almost 2 million acres of crop and pasture land.

One measure of the FARM Assistance program's impact is the projected net worth consequences of alternative scenarios analyzed for each subscriber. This measure indicates the gain in net worth a producer would likely see at the end of the 10-year planning period, as a result of choosing the better of two alternatives. Just looking at the difference between the base situation and one alternative scenario implies that producers using the program, on average, could expect a $23,000 per year difference (positive or negative) in net worth compared to the base or baseline situation. For the 10-year planning horizon, that's a $230,000 decision that each subscriber makes using the FARM Assistance strategic analysis.

As mentioned previously, the FARM Assistance program serves in a much broader capacity than the individual analyses performed each year. The data collected serves to answer questions regarding the impact of state and federal policy options, and provides valuable insight into the differences that exist among agricultural producers in Texas. Simply put, the database allows all producers in the state of Texas to benefit from the program by learning more about the characteristics and practices of the successful and unsuccessful operations that do participate.

The following sections have been developed in an effort to learn from the many unique producers and situations encountered by FARM Assistance participants. By dissecting and summarizing producers with different levels of success, types, commodities, and practices it will become possible to identify some of the factors that contribute to financial success in production agriculture. Such identification can then be used to help all Texas producers improve their management information and financial success.

Before presenting the information and data that represent the FARM Assistance clientele, it is helpful to understand the typical participant in the FARM Assistance program. The early years (pre-2000) of the FARM Assistance program saw many producers that could be described as full-time, commercial, innovative, forward-thinking managers. As with any new product or program, FARM Assistance tended to attract and serve successful and proactive managers -- those willing to be early adopters. This resulted in a somewhat biased database of farms and ranches, since these types of managers are certainly not representative of all producers across the state.

As time passed, the program and client base matured. We have since served a much more representative base of clientele. As word spread about the benefits of strategic planning with FARM Assistance, we have worked with a wide range of producers, ranging from the very successful to those considering leaving the business because they haven't found success. Strategic planning is beneficial at both ends of the success spectrum. The successful manager usually has many ideas and opportunities when it comes to future plans. Finding the most efficient and effective use of time and money is critical when you have many alternatives to consider. On the other hand, some producers come to us facing a dismal financial outlook or even bankruptcy options. Strategic planning in these cases can help a producer make the very difficult decision of whether to continue or exit the business. Whatever their choice, our multi-year strategic planning analysis can help identify the options that are most feasible and those that have the potential to salvage or grow the most equity.

"FARM Assistance helps put hard numbers to changes in production practices to show if these changes are taking you in the right direction."

– Mike McGuire, Haskell County Producer

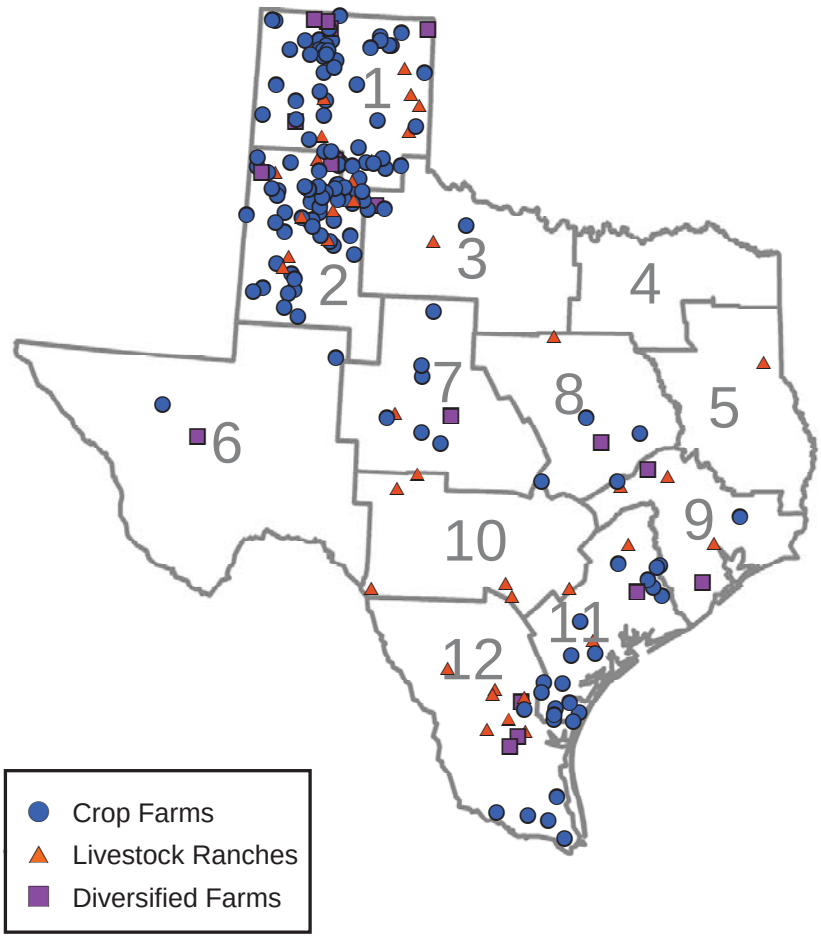
While we have performed over 1,160 analyses, this report only includes the most current and up-to-date projections for any analysis or data series. For the 2007 Road to Success, 199 different farms and ranches have been included. Each producer's input data has been updated within the last three years, and all the farms have been subjected to the same projected outlook for crop and livestock market prices.

The 199 farms are identified in Figure 1. The regions identified in the Texas map are the 12 Texas AgriLife Extension Service districts. As the map indicates, our participant database is made up of individuals from all areas of Texas. Participation patterns follow the major commercial crop producing regions in the state, with significant representation in the Northern and Southern High Plains as well as the Coastal Bend Regions.

In total, the 199 operations summarized in this report represent approximately 500,000 acres of productive farm and ranch land. Of that total, 123,000 acres are in irrigated production and a little over one quarter (27%) is native pasture land. Livestock production in the group amounts to almost 5,900 head of mother cows and over 8,000 head of stocker calves. The value of all assets held by the participants totals $240 million, and a total net worth of $156 million is claimed by the 199 farm and ranch owner/operators. The information provided in this report is primarily for the year 2007, but also includes projected financial performance over a 10-year planning horizon.

One of the objectives of analyzing the financial performance of all the FARM Assistance participants is to learn what makes some farmers or ranchers more successful than others. The idea is to identify the characteristics or factors that are true of the financially successful producer, as well as those characteristics of the financially stressed. Once these critical factors have been determined, the information can be used by all producers to improve financial performance.

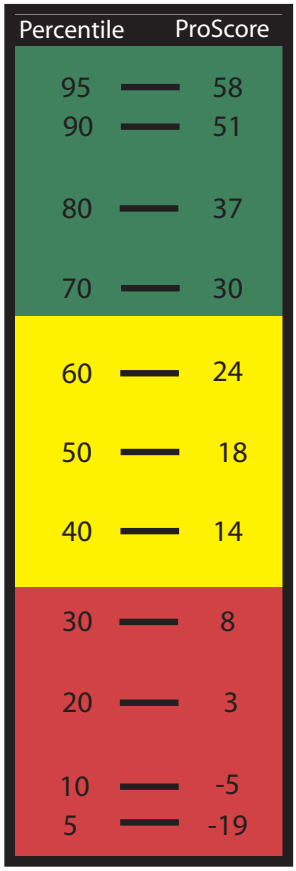
Figure 1. FARM Assistance Participants.



It is amazing to see how comparisons will change the bottom line.
-David Wagner, Oldham County Producer

The first step in the process of analyzing 199 farms is to find a way to measure financial success. In particular, we are talking about forecasted success, so the question is: Which financial measure is the best indicator of a successful financial outlook for an individual producer? In reality, there probably isn't one measure that incorporates all of the factors that contribute to the broad label of financial success. Because no single measure or financial ratio tells the whole story, we have developed the FARM Assistance Projection Score, or ProScore. The ProScore is a weighted index that considers several factors of projected performance, effectively measuring the strength of an individual producer's financial outlook.

Figure 2. The ProScore.



The three factors in the FARM Assistance ProScore success index are projected profitability, equity growth, and cash flow risk. The average return on assets (ROA) for each operation's 10-year projected planning period is used as a measure of profitability. Likewise, the average of the projected annual growth in real equity is used as another indicator of financial success. Finally, the ProScore includes a penalty (-0.25) for excessive cash flow risk, measured by Working Capital Risk or the average annual probability of a negative working capital position. To calculate an individual's ProScore, simply add the percentage ROA and the percentage Equity Growth, then subtract one-quarter of the probability of negative working capital.

ProScore = ROA + Equity Growth – ¼ Working Capital Risk

As an example, John Q. Farmer has a projected 10-year average ROA of 4.5%, an expected average equity growth of 6%, and a 25% probability of negative working capital. John's FARM Assistance ProScore would be 4.25 (4.5 + 6 - ¼*25).

The ProScore itself is a simple index that allows for a comparison of one producer to another or one producer to a group. The ProScore is capable of comparing farms of different sizes, regions, and types because the score focuses on relative profit, growth, and probabilities instead of absolute values or cash levels.

Most index values fall in a range between -20 and 60. The average ProScore over the entire 199 farms and ranches is 18.64. In addition to direct comparisons between farms, the ProScore allows a producer to evaluate his outlook relative to all of the participants in the FARM Assistance system by looking at percentile rankings. Figure 2 illustrates the ProScore scale and the corresponding percentile rankings. For example, a ProScore of 37 corresponds to the 80th percentile in the FARM Assistance database. That means if you have a ProScore of 37 or better, your outlook is better than 80 percent of the producers in the database. On the other hand, if your ProScore is -5, your outlook is at the 10th percentile, meaning 90% of the group has a better financial outlook than you do.

In an effort to characterize the successful farm or ranch, the group of 199 producers was split into 3 categories of projected

"This program can give you the confidence to make the tough choices to insure your farm's future profitability. It is worth the time and effort."

– Steve Raymond, Swisher County Producer

financial success. The categories of success are also illustrated in Figure 2 by the colored ranges in the scale. The ProScore for every operation was sorted from highest to lowest score. The top third, or those above the 66th percentile, are labeled successful. The middle third of the group is identified as those whose outlook appears to be stable. Finally the bottom third, those with a ProScore that fell below the 33rd percentile, we describe as financially stressed. With three groups of producers, and each group projecting a different degree of financial success, we are able to describe many of the characteristics of the groups and begin to learn what separates the financially successful, stable, and stressed agricultural producers.

Analysis by Success Groups

While the average ProScore of all farms and ranches was 18.64, the 66 most successful producers were rated at 27 or higher with a 43.81 average. The stable category represents the 66 producers with a ProScore ranging from 10 to 27 and averaging 18.60. The financially stressed category's ProScore averages -6.13, and consists of the 67 producers that fell below a 10 rating.

Table 1 illustrates the primary characteristics of the three producer groups and suggests that the size, especially measured by receipts could be indicative of their level of financial success. Successful producers, whose average size of 2,616 acres was the largest among the three groups, averaged $186,200 more in receipts than the average of all farms and ranches. Conversely, stressed producers earned $178,500 less in receipts than the average of all farms and ranches while having the smallest average sized operations (2,310 acres). The average acres and total receipts of the stable producers are similar to the averages of all farms and ranches, averaging 25 more total acres and $4,900 less total receipts than the average of all farms and ranches. A closer look at more specific production data indicates that the more successful producers tended to be more heavily weighted towards crops, while the stressed group claimed more native pasture acres and less crop acres. The financially stable producers average slightly more livestock than each of the other success levels. The average acreage of row crop production tends to increase with the level of success, suggesting that the crop producers generally have a more favorable financial outlook overall. The breakdown of land tenure arrangements indicates a higher proportion of share rented land for the successful category, a practice that is much more common for crop production than livestock production.

Across all producers, the average total receipts in 2007 were $576,000. Of that total, approximately 74% came from crop sales (Figure 3), 13% from crop insurance indemnities and crop-

Table 1. Average Production Characteristics by Success Level.

	All Farms & Ranches	Successful	Stable	Stressed
Number	199	66	66	67
ProScore Rating	18.64	43.81	18.60	-6.13
2007 Total Receipts ($1,000)	576.0	762.2	571.1	397.5
Total Acres	2475	2616	2500	2310
Total Cash Lease Acres	870	1096	843	674
Share Acres	759	937	763	580
Total Owned Acres	869	612	919	1073
Corn Acres	217	322	227	104
Cotton Acres	444	525	420	389
Sorghum Acres	214	225	241	177
Wheat Acres	337	392	316	302
Improved Pasture Acres	26	6	25	47
Native Pasture Acres	684	563	668	821
Cows (# head)	30	24	27	37
Stockers (# head)	41	38	61	24

"This is the best tool I have found to make important profit and debt decisions in my operation. I would recommend it to everyone who is making decisions in their operation."

– David R. Krebs, San Patricio County Producer

Components of Total Receipts by Success Level ($1,000).

Figure 3. All Farms and Ranches.

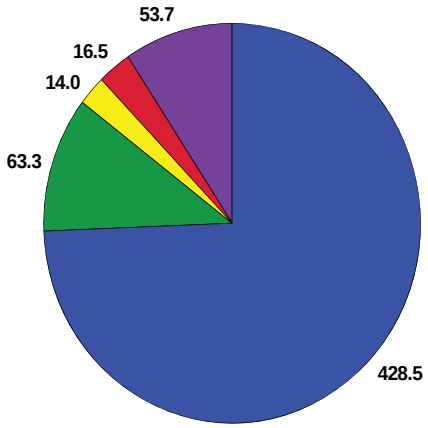


Figure 4. Successful Farms and Ranches.

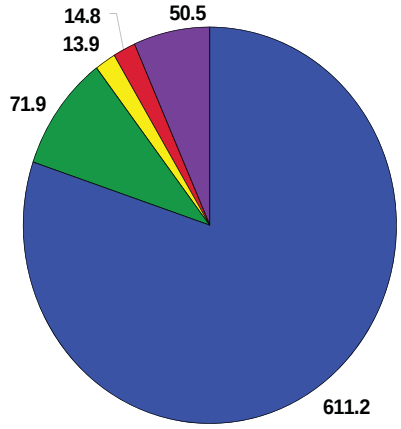


Figure 5. Stable Farms and Ranches.

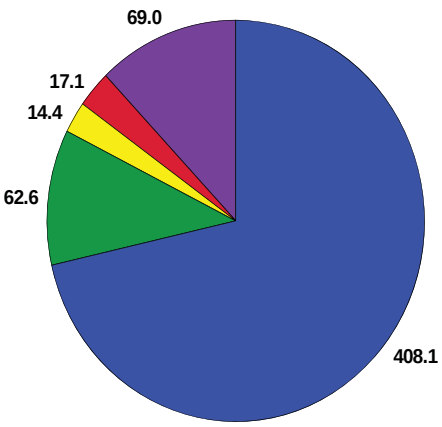
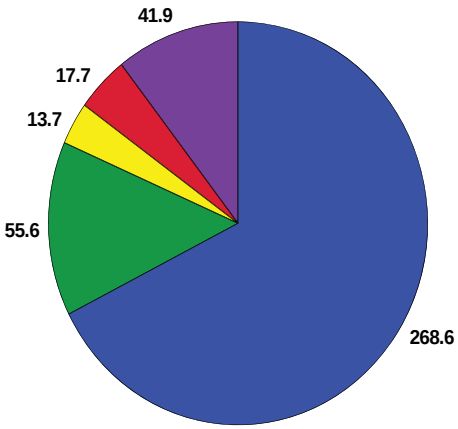


Figure 6. Stressed Farms and Ranches.



related government payments, and 9% from livestock receipts. The 'Other Receipts' category represents 3% of total receipts and consists of items that are not directly related to crop or livestock production activities. Rental payments, mineral royalties, and custom farm work are among the most common items contained in the 'Other Receipts' category.

As previously stated, there is a clear tendency of the financially successful classification to be more heavily weighted toward crop rather than livestock production. The 66 most successful operations have a higher proportion of receipts from crop activities (Figure 4). Crop sales alone make up 80% of receipts. When crop insurance and government payments are considered, crop related receipts make up 91% of the average total receipts. Livestock receipts and 'Other Receipts' make up the remainder of the total with a 7% and 2% share, respectively.

"The FARM Assistance program has put me on track to make my ranch the most productive it can be."

– R.M. "Dick" Shepherd, Montague County Producer

The financially stable group of producers generates total receipts slightly lower than the average for all producers. On average, the stable group has $571,100 in total receipts. The proportional mix of receipts from different sources almost mirrors that of the entire group of producers (Figure 5), with 71.5% coming from crops and 12% attributed to livestock.

Financially stressed producers have the lowest total receipts and the lowest percentage of crop receipts. With an average of $397,500 in total receipts, the stressed group has approximately $178,500 fewer receipts than the overall average. Stressed producers earn approximately 10% of their receipts from livestock production which is similar to all farms and ranches. However, with respect to the "other" receipts category, both successful and stable producers earn 1.94% and 2.86%, respectively, while the stressed producers earn a higher proportion of receipts at 4.5% (Figure 6). Crops account for 67.5% of total receipts.

Table 2 describes the average investment and debt structure of all farms and ranches and compares the structure of the three groups. Real estate value per acre describes the level of investment in long-term assets such as land, barns, and houses. The level of investment is measured by the dollar value of assets per productive acre, so it does not indicate the value of land per acre. For example, a low value could indicate the land itself has a low value, or it could mean the producer leases most of the productive land, or both. A producer that leased all land and had no real estate assets would have a zero real estate value per acre. On average, FARM Assistance participants have $399 invested in real estate assets per productive acre. The successful producers have a significantly lower real estate investment. At $110 per acre, their investment is less than one-third of the overall average and the stable producers, and one-sixth that of the stressed producers.

Similarly, the machinery value per acre measures the extent of an individual's investment in equipment per productive acre. Lower values are common for livestock producers as well as crop producers that hire custom work instead of owning the equipment. The average producer owns $181 in equipment and machinery per acre. By comparison, successful producers have a below-average level of machinery investment, while the stable producers have levels similar to the average, and the stressed producers have the most money tied up in equipment.

It is also convenient to compare the relative debt structure on a per productive acre basis. The long-term debt per acre for the average producer is $132 per acre. Another way to look at this measure is that every productive acre in the operation is carrying $132 in debt and associated debt payments. As a simple example, the annual payment for a $100 debt with 8% interest and 15 years remaining would be about $11.00 per year. As was the case for the long-term asset investment in real estate, the long-term debt per acre gets progressively lower as the level of success increases. The 66 financially successful producers have an average $77 in long-term debt for every productive acre in their operation. Intermediate-term debt most commonly includes three to seven year term debt for machinery, equipment, and breeding livestock.

Table 2. Average Asset and Debt Structure by Success Level.

	All Farms	Successful	Stable	Stressed
Number	199	66	66	67
Real Estate Value Per Acre	399	110	386	695
Machinery Value Per Acre	181	138	170	234
Long Term Debt Per Acre	132	77	148	172
Intermediate Debt Per Acre	76	92	60	76
Debt To Assets %	42.6	57.2	36.0	34.3

"FARM Assistance was a nice surprise. Not full of intellectual jargon, but an exceptional amount of useful information. This program cannot help but improve a rancher/farmer's bottom line."

– Cole Turner, Haskell County Producer

Table 3. Average Financial Performance by Success Level.

	All Farms & Ranches	Successful	Stable	Stressed
Number	199	66	66	67
Net Cash Farm Income per Acre	71.6	99.1	71.1	45.1
NCFI Standard Deviation	79.6	111.0	75.8	52.5
Expense to Receipts	0.70	0.69	0.65	0.77
Interest Expense to Receipts	0.08	0.05	0.08	0.10
Depreciation To Receipts	0.12	0.08	0.10	0.18
Family Living	35,027	30,778	34,303	39,451
Off Farm Income	14,363	8,180	15,723	19,114
Average Return On Assets %	9.8	18.0	8.7	2.8
Average Change in Real Net Worth %	11.4	19.5	11.2	3.5

The most successful producers carry an average of $92 in intermediate-term debt per acre, higher than the $76 average overall and over one and one-half times as much as the financially stable group. In fact, the successful group has more intermediate debt per acre than long-term debt per acre, a stark contrast to the stable and stressed groups whose intermediate-term debt is less than half of their respective long-term debt levels.

In terms of overall debt, the data suggests that debt is not necessarily a bad thing. The most successful 66 operations carried the highest debt level at 57.2% debt-to-asset ratio. In general, if an operation's percentage return on assets is larger than the interest cost of debt, then borrowing can be profitable. This appears to be the case with the successful FARM Assistance producers. In contrast, the financially stressed and financially stable operations' debt load (34.3% and 36.0%, respectively) is likely the result of compounding cash flow deficits over a 10-year projection. Table 3 provides details of the financial performance of all producers and compares the three groups by projected success. There is a clear distinction in profitability among the three groups. The most successful producers generate an average net cash farm income (NCFI) per acre of $99.10, compared to $71.10 and $45.10 for the stable and stressed producers, respectively. The standard deviation of NCFI measures the risk in profitability. In terms of probability, the standard deviation describes a range of potential NCFI that the producer will realize about 70% of the time. The lower end of the range is the average NCFI minus the standard deviation, and the upper end is average NCFI plus the standard deviation. For example, the average stable producer has a NCFI per acre of $71.10 and a $75.80 standard deviation. That means that just over two-thirds of the time he would expect to see a NCFI in the range between - $4.70 per acre and $146.90 per acre. A larger standard deviation means a wider, more risky range is possible with the same 70% probability. Each of the FARM Assistance groups faces the risk of negative net cash farm income.

The expense to receipts ratio measures the efficiency of a producer's ability to generate receipts. The successful producers are the most efficient because they spend $0.69 in operating expenses to generate $1.00 in receipts. The relative portion of receipts that pay for interest expenses and depreciation expenses are roughly $.05 each. The stressed producers, however, are much less efficient. They spend $0.77 for operating expenses and $0.10 in interest for every dollar of receipts. That only leaves $0.13 of every dollar to pay for depreciation, principal payments, family living, taxes, and capital purchases. Depreciation expense for the group totals $0.18 per dollar of receipts, meaning most of the group is in a negative overall profit position.

"FARM Assistance is very educational and has helped us to see where we need to make adjustments in our operation in order to be more profitable. We are so grateful to have learned about this service."

– H.P. Bradley, Wheeler County Producer

Average expenditures for family living expenses also show distinct differences depending on the success level of the producer. The amount spent on family living expenses progressively increases as the success level decreases. Successful producers spend, on average, $30,778 per year while the stressed producers spend an average of $39,451 on family living expenses which is higher than the overall average. It isn't clear how much can be read into the family living statistics. Members of the successful group may be financially successful because they spend less, save more, and therefore, retain more equity over time. It may also reflect the person's management style. More specifically, the person that is highly capable of managing expenses relative to generating profits is also likely to have a careful attitude regarding family household spending.

Another interesting characteristic of agricultural operations is their dependence on off-farm income. A legitimate question is whether the financially successful producers have achieved that status because they have substantial income from off-farm sources. Data from FARM Assistance participants does not necessarily suggest that financial success comes from income generated off the farm. The highest off-farm income is found among the financially stressed producers who, on average, receive $19,114 annually from off-farm sources. Successful producers generate the least off-farm income with $8,180; meanwhile, the stable producers earn $15,723.

The final three performance measures and characteristics are the factors included in the FARM Assistance ProScore rating. All farms and ranches average a 9.8% Return on Assets (ROA). Relative to the ROA usually quoted for agriculture, an ROA of almost 10% is extremely high. One difference is that the FARM Assistance measure of return includes the gains and losses in the market value of long-term real estate and investment assets. A change in market value of an asset can be described as an unrealized gain. Specifically, an increase in value is not realized or received until the asset is sold and converted to cash. Most measures of ROA would not include an unrealized gain because they tend to reflect a short time period where value changes are either insignificant or impossible to measure. However, in the case of the 10-year projection of FARM Assistance, it is reasonable to assume that over a long period of time, the change in market value is an important factor in the benefits or returns to holding a land or investment asset. By comparison, the most successful producers have a projected 18% ROA, while the stable and stressed producers have an outlook of 8.7% and 2.8% returns, respectively.

Equity growth, which is measured by the average annual growth in real net worth, directly reflects the severity of the outlook for the stressed group. Recall for the

"This program showed me on paper the things I was in doubt about. I will be able to make better choices."

-- Robert J. Lewis, Hood County Producer

stressed group, that for every dollar in receipts, $0.77 is committed to operating expenses, $0.10 is committed to interest expense, and $0.18 is drained through depreciation. Add family living expenses and principal payments, and a steady decline in farm equity would be expected. In fact, the farmers and ranchers classified as financially stressed face an outlook that suggests a slight, 3.5%, annual growth in real net worth, likely due to increasing asset values. The successful producers' operations, however, are forecasting almost a 20% gain in real net worth.

Cash flow risk also provides a clear distinction between the stressed producers and the other participants. While the successful and stable groups average a 16% probability of negative working capital, the financially stressed face an average 41% chance of a shortage of cash and other liquid assets relative to short-term cash obligations.

Comparisons Considering Financial Success

All 199 farms and ranches are divided equally into the successful, stable, and stressed categories, meaning the proportional make-up is described as one-third successful, one-third stable, and one-third stressed. The level of success in any sub-group of producers can be illustrated by the proportional make up of the members of the group. For example, if we found that there were 60 farmers that drove red trucks, we might be curious to know if this group was more or less successful than the total group of 199 producers. If further investigation found that of the 60, 20 had been labeled successful, 20 were stable, and 20 were stressed, we would conclude that driving a red truck has no impact on the success of the operation. If we found something other than a 20-20-20 split, we might be able to suggest that driving a certain color of truck is related to, or even has an impact on, financial success. Following that example, much of the rest of the database analysis is focused on segmenting the database into sub-groups of producers and identifying the differences that exist among the groups.

Analysis by Geographic Region

Figure 7 presents a regional breakdown of success across all FARM Assistance participants. The regional divisions represent the 12 districts of the Texas AgriLife Extension Service. For this analysis we have grouped the participants into five regions based on Extension districts or combinations of districts.

The cotton dominated region of Districts 2 and 3 is the most successful with 43% of the FARM Assistance participants showing a successful financial outlook. Thirty-one percent of the region is considered stable and only 26% are financially stressed. The Coastal Bend and South Texas region (Districts 9, 11, and 12) is almost the reverse. At 40%, the proportion of stressed producers is the highest of all regions.

The Northern Panhandle (District 1) and the arid region of South Central and West Texas (districts 6, 7, and 10) both have a relatively equal distribution of success levels. The stressed producers comprise 39% and 35%, respectively. The stable producers from each group comprise almost 30% and the rest are classified as successful.

The region of North and East Texas (districts 4, 5, and 8) is unique with no financially successful producers represented in this area. Financially stable producers comprise two-thirds of the region with the remaining one-third representing financially stressed operations.

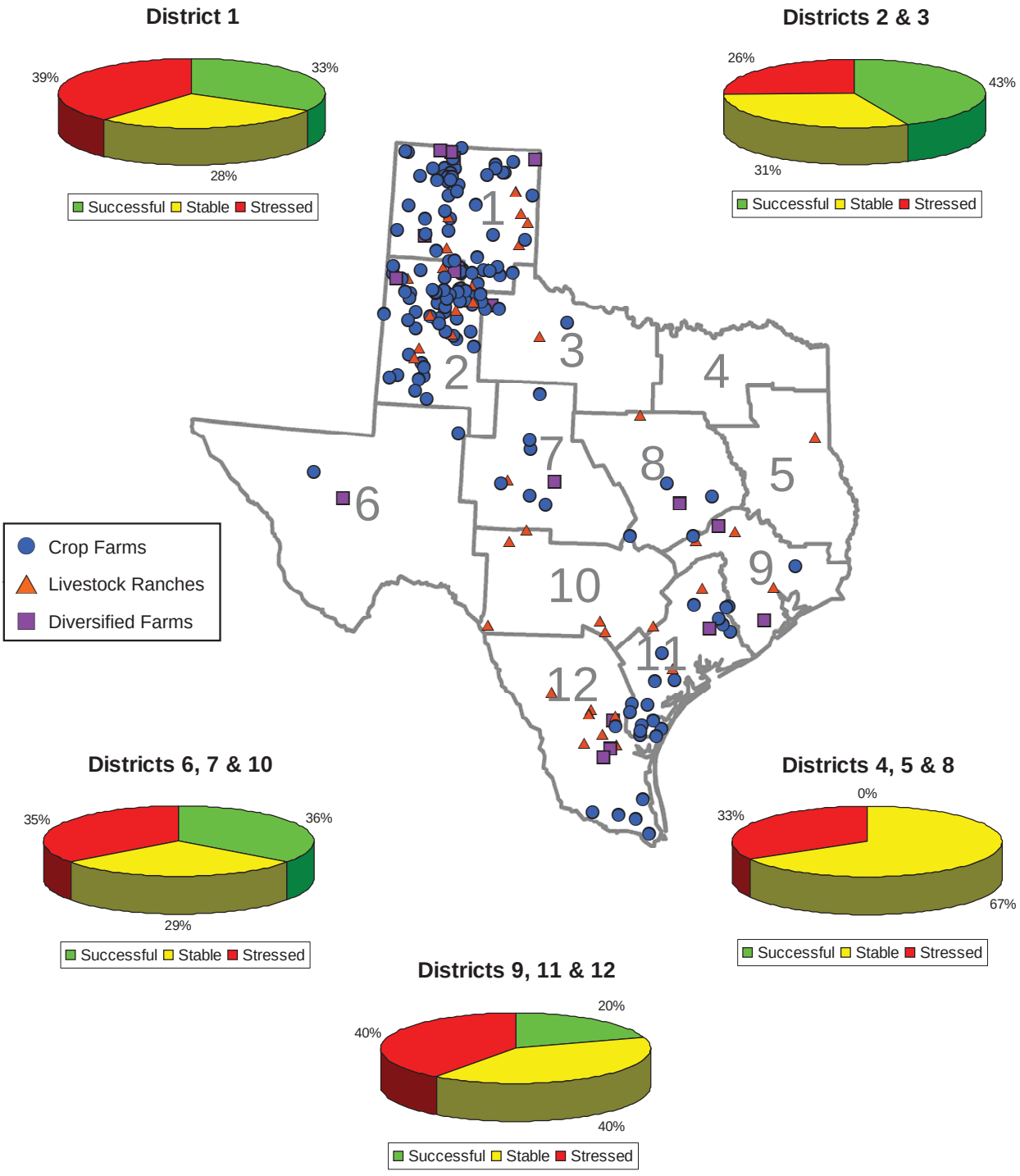
Analysis by Producer Type

In the following section, we explore the differences that exist among agricultural operations of different types. We have defined three general types of producers: Crop Farms, Livestock Ranches, and Diversified Farms. Each of the 199 operations was categorized as one of the three

"The FARM Assistance analysis conducted for our two farming entities provided very practical information in a number of areas for making both large and small decisions concerning the future operation of our farms."

-- Francis L. Montandon, IV, Floyd County Producer

Figure 7. Comparison of FARM Assistance Participants' Success by Region.



"This program has provided me the necessary information to make the best possible decisions on managing my farm business."

-- Ed Ermis, Refugio County Producer

types based on the percentage of their total receipts. A crop farm is defined as an operation whose crop enterprise(s) account for 75% or more of total receipts. Similarly a livestock operation would earn 75% or more of their total revenue from livestock activities. Farms that did not meet either of those thresholds were classified as diversified.
The first thing to point out in summarizing the different types of producers is the predominance of crop production among the FARM Assistance participants. While Texas agriculture, in general, is dominated by cattle production, of the 199 operations participating, 141 were classified as crop farms. No concrete evidence exists for why this is, but one could speculate that crop farms tend to engage in more management and financial planning than do livestock operations.

Figure 8 provides an illustration of where the different types of operations are located around the state. Crop farms are concentrated around Lubbock, Amarillo, and the Coastal Bend regions. Livestock ranches dominate Districts 10, 11, and 12, but also have considerable participation in the Northern Panhandle. Districts 1 and 2 have the most prolific participation, where we find significant participation by all three producer types.

In terms of financial success, the crop farms have a distinct edge in success ranking and ProScore rating. The pie charts within Figure 8 show the proportion of each group that is classified as financially successful, stable, or stressed. A profile different from the equal thirds found in the overall group can help identify the success level of the three operation types. Crop farms have similar success level proportions, while both diversified farms and livestock ranches have a higher proportion of financially stressed producers (over 40%). Stable producers comprise just fewer than 40%, and the successful producers are roughly 20%.

Table 4 provides the average production profile for operations in each of the three production-type groups compared to the overall averages for farm size, land tenure, and enterprise mix. While the average FARM Assistance ProScore for all 199 operations was 18.64, the crop farms had a more favorable 21.42 average ProScore. The 18 diversified producers had the lowest average index of success with a collective ProScore of 6.17. The 40 livestock ranches are only slightly below the average outlook of all the participating farms and ranches, with an average ProScore of 14.43.

While a producer's total acreage does not necessarily indicate their level of success, the data appears to indicate that size as measured by total receipts may be an important factor. The livestock ranches operate 3,310 acres on average, which is approximately 850 acres greater than the overall average. Regardless of this significant size difference, livestock ranches produced the lowest average of total receipts. The crop farms had the greatest average of total receipts with $695,900,

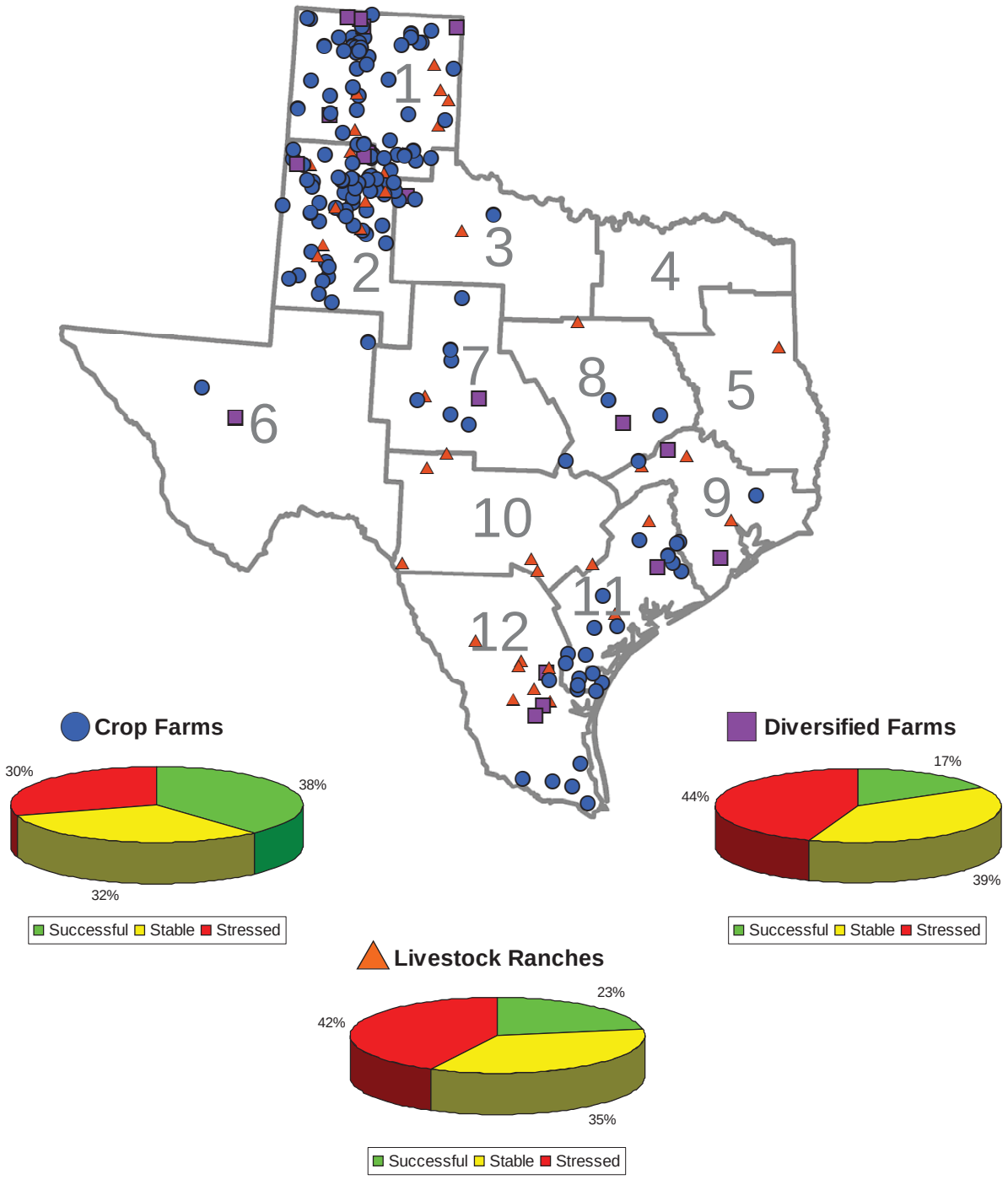
Table 4. Average Production Characteristics by Producer Type.

	All Farms & Ranches	Crop	Diversified	Livestock
Number	199	141	18	40
ProScore Rating	18.64	21.42	6.17	14.43
2007 Total Receipts ($1,000)	576.0	695.9	569.0	156.7
Total Acres	2475	2279	2150	3310
Total Cash Lease Acres	870	459	618	2433
Share Acres	759	977	360	68
Total Owned Acres	869	844	1172	820
Corn Acres	217	293	100	0
Cotton Acres	444	616	73	5
Sorghum Acres	214	290	90	3
Wheat Acres	337	397	481	57
Improved Pasture Acres	26	19	109	14
Native Pasture Acres	684	104	546	2793
Cows (# head)	30	7	48	101
Stockers (# head)	41	18	261	23

"The FARM Assistance analysis has greatly helped me and my banker compare the benefits of drip irrigation to furrow irrigation or dryland production. I will use this analysis on other farm economic decisions."

-- John W. Wilde, Tom Green County Producer

Figure 8. Comparison of FARM Assistance Participants' Success by Producer Type.



"FARM Assistance has been a valuable tool in evaluating the upcoming decisions I will need to make in the future to keep my farming operation viable."

– John Gaulding, Jefferson County Producer

Components of Total Receipts by Operation Type ($1,000).

Figure 9. All Farms and Ranches.

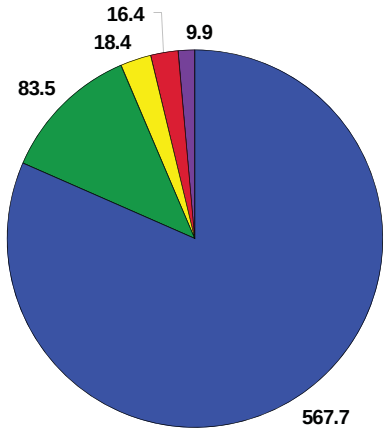


Figure 10. Crop Farms.

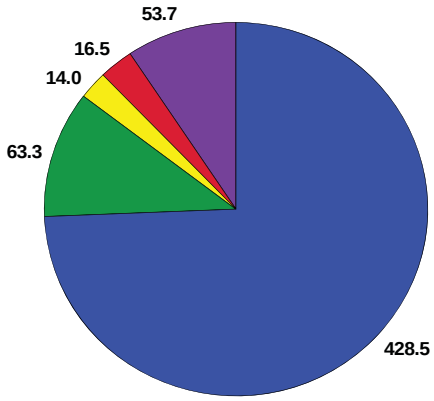


Figure 11. Livestock Ranches.

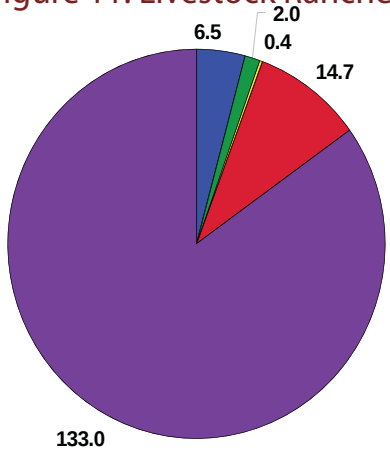
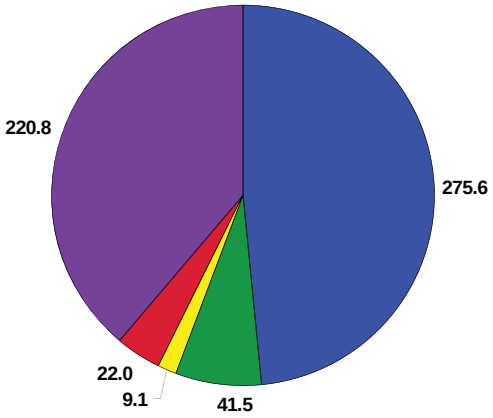


Figure 12. Diversified Operations.



which is more than $100,000 higher than both the diversified farms and the overall FARM Assistance participants' averages. Both the diversified and crop farms operated on roughly 2,200 total acres which is 200 acres below the overall average.

At over 70% of their total acreage, livestock ranches cash lease the most acres. The remaining balance of their land is owned with virtually no incidence share lease arrangements. On the other hand, crop farmers utilize share agreements on 43% of their total acres, own 37% of their land, and only cash lease 20%. Diversified farms own the highest percentage of their productive acres at almost 55% of their total acreage.

The mix of different crop and livestock enterprises mostly follows

"The information received in my report is invaluable. It will make future decisions easier to pencil out, and make me a better manager."

– Larry Romine, Martin County Producer

Table 5. Average Asset and Debt Structure by Producer Type.

	All Farms & Ranches	Crop	Diversified	Livestock
Number	199	141	18	40
Real Estate Value Per Acre	399	277	756	667
Machinery Value Per Acre	181	192	204	130
Long Term Debt Per Acre	132	101	268	181
Intermediate Debt Per Acre	76	67	86	101
Debt To Assets %	42.6	42.2	47.0	41.8

what you would expect from the three types of operations. The crop farms have the most crop acres and livestock ranches have the most native pasture acres. The crop farms have minimal livestock production; cotton acres dominated the average production mix of the crop group. While not specializing in either a specific crop or livestock, the diversified group has the highest average acreage of wheat production and improved pasture, and tends to be more involved in stocker production than livestock ranches. Cow-calf operations appear to be the focus of the livestock ranches with only a small amount of wheat, cotton and sorghum acres planted.

Figures 9, 10, 11 and 12 detail the sources of receipts for all participants and for the three types of producers. Because the type categories were defined by the proportion of receipts from various activities, the percent of receipts that come from crop and livestock sales are pre-determined by the classification.

For the 141 crop producers, the average non-crop related revenues were just less than 4% of total receipts. The bulk of the average receipts are generated from crop sales (82%), crop related government payments (12%), and crop insurance (3%). In contrast, the livestock producers received approximately 5% of their receipts from crop activities and another 9% from other non-livestock revenue sources. The diversified category generated more revenue from crop related activities (57%) than from livestock production, which generated 39% of total revenue.

Table 5 provides a comparison of the asset and debt levels for the different types of producer participants. The level of investment in real estate is lowest for crop farms, at $277 per productive acre. Livestock ranches own the lowest proportion of their acres; however, they have an average of $667 per acre invested in land. The diversified farms own the highest proportion of their productive acres (55%) and have $756 invested per acre. Investment in machinery is similar for the crop farms and diversified operations at close to $200 per acre and is lowest for livestock ranches at $130 per acre.

Crop and livestock operations have a similar 42% overall debt-to-asset ratio. Crop farms have a lower level of long term and intermediate debt per acre as compared to livestock ranches, but also hold much less in real estate assets per acre. Livestock ranches appear to be most highly leveraged on

Table 6. Average Financial Performance by Producer Type.

	All Farms	Crop	Diversified	Livestock
Number	199	141	18	40
Net Cash Farm Income per Acre	71.6	84.7	30.4	43.9
NCFI Standard Deviation	79.6	99.5	62.1	17.6
Expense to Receipts	0.70	0.70	0.76	0.68
Interest Expense to Receipts	0.08	0.06	0.13	0.13
Depreciation to Receipts	0.12	0.08	0.20	0.25
Family Living	35,027	37,653	31,036	26,685
Off Farm Income	14,363	11,287	13,509	25,590
Average Return on Assets %	9.8	11.8	7.4	3.9
Average Change in Real Net Worth %	11.4	11.9	6.0	12.0
Avg Prob Negative Working Capital %	24.5	23.9	31.7	23.6

"FARM Assistance generates the kind of financial data that is critical to survival in production agriculture today."

– Kent Nix, Dawson County Producer

intermediate term assets, but they also hold significant livestock assets against their $101 intermediated debt per acre. Diversified farms have the highest debt-to-asset ratio of 47%. Additionally, they have an intermediate debt of $86 per acre and a significantly above-average long term debt of $268 per acre.

Table 6 provides a comparison of the financial performance indicators for the three types of FARM Assistance producers. As suggested earlier by the overall ProScore rating, crop farms generally had the best financial outlook among all of the participants. The outlook for both the diversified and livestock groups indicates some future financial stress. Most of the indicators found in Table 6 follow the broad assessment of the ProScore ratings. In terms of profitability, crop farms produced $84.70 in NCFI per acre and had an average efficiency with a 0.70 expense-to-receipts ratio. The diversified producers had the lowest level of profitability with $30.40 NCFI per acre and the worst efficiency level at 0.76 expense-to-receipts ratio. The livestock ranches had a modest level of profitability with $43.90 NCFI per acre. In terms of efficiency, the livestock group had the lowest expence-to-reciepts ratio of 0.68.

The debt load, in terms of the relative amount of earnings spent on interest expense was lowest for crop farms ($0.06) and similar for diversified and livestock producer groups at $0.13. The relative depreciation expense; however, indicated a higher level of variation for the different types of producers. While not a cash expense, depreciation represents a significant drain on profitability and equity. Livestock producers typically do not have a large complement of depreciable equipment, but breeding livestock are depreciable. Relative to the receipts earned annually, the livestock ranch participants had the highest level of depreciation at $0.25 per $1.00 of receipts.

In addition to the highest levels of financial success, the crop farms had the highest draw from the business for family living expenses and the least off-farm income. Average family living expenses were more than $37,000 for crop farms. The lowest family living expenses were found among the livestock producers, with less than $27,000 per year. The livestock producers had the highest level of off-farm income of nearly $26,000 per year, while the diversified producers had nearly $14,000, and crop producers generated just over $11,000.

The financial indicators that define the ProScore rating measure the relative profitability, equity growth, and liquidity risk of an individual's operation. Because diversification tends to be considered a positive strategy, it is somewhat surprising that the diversified operations have the lowest level of equity gain (6.0%) and the highest chance of negative working capital (31.7%). The livestock and crop operations have similar levels of real net worth growth (11.9% and 12%, respectively) and both have almost 24% average chance of negative working capital. The return-on-assets category is where they are drastically different, 11.8 % for crop farms versus 3.9% for livestock operations.

Commodity Analysis

The following sections are devoted to the analysis of the production of four major crops grown across Texas. The primary purpose is to evaluate a segment of similar producers to find out how one group compares to another and how those in a commodity group compare to their peers.

Participants were labeled as being corn, cotton, sorghum, and/or wheat producers. The label determination was made based on the relative acreage dedicated to a specific commodity. It would be rare to find producers that were so specialized as to grow only one crop. Even highly specialized production will usually have secondary or rotation crops included in the whole-farm mix. Therefore, many individuals were identified as producers of more than one crop. The identification of a crop means that a producer had a significant percentage (more than 15%) of their total acres planted to a crop. With a 15% threshold, a single producer could actually fall into more than one category. For example, a crop farmer with an acreage mix of 40% cotton, 30% corn, 25% sorghum, and 5% wheat would be counted in the cotton, corn and sorghum commodity groups, but would not be included in the wheat group.

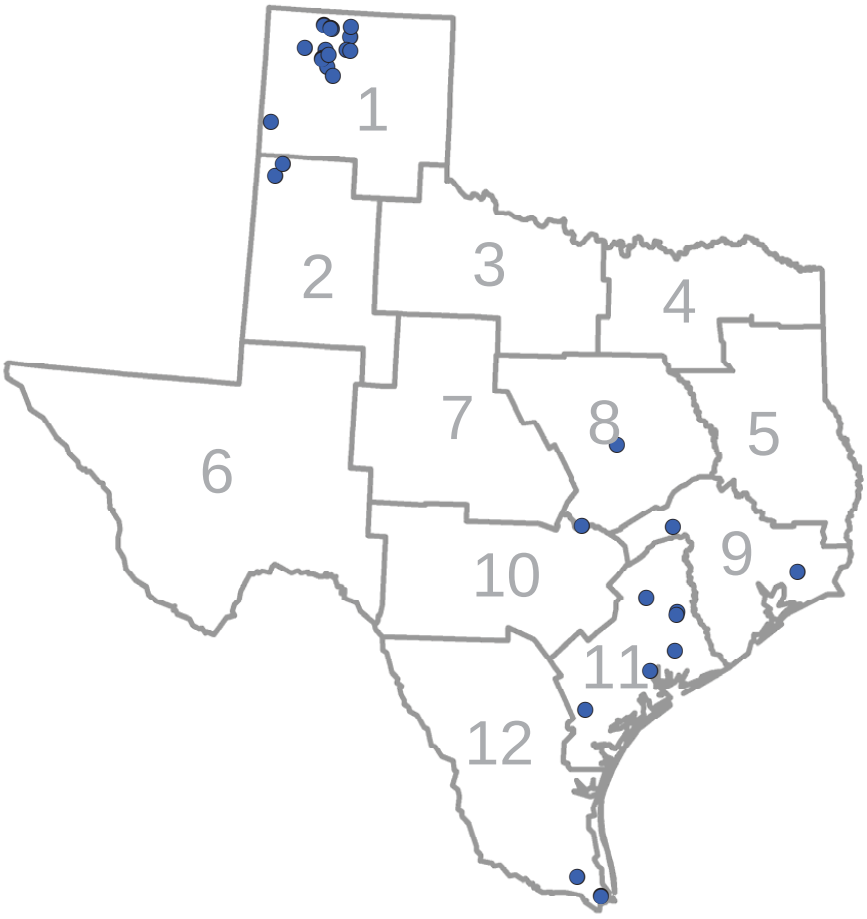
Commodity Analysis: Corn Production

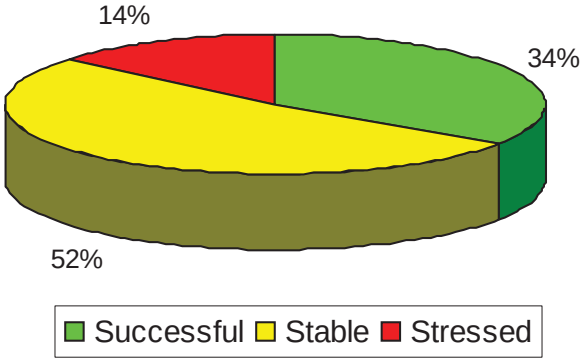
Figure 13 represents all the FARM Assistance participants with at least 15% of their acreage in corn. Following general production patterns in the state, these corn producers operate in the Northern Panhandle, Southern Plains, Central Texas, and throughout the Coastal Bend. The pie chart describes the general success level of those labeled as corn producers. In general, the financial outlook for corn producing participants was among the most favorable. Half of the group is identified as stable, 34% as successful, and only 14% are considered financially stressed.

Figure 14 illustrates and describes average yield and production costs for dryland corn production. The 10 FARM Assistance participants had an average ProScore rating of 24.2. Of these 10 dryland producers, two were considered successful, seven were financially stable and one producer was financially stressed. The average yield and cost data provide insight into the expense structure and production results for corn production as performed by producers of varying levels of success. In other words, can we learn something from the way successful producers grow dryland corn? Can we learn what not to do from those that are less successful?

The first notable item from Figure 14 is the limited number of producers in this group. The small number

Figure 13. Location and Success of Corn Participants.





"The FARM Assistance Program was the most worthwhile time I've ever spent in an educational program."

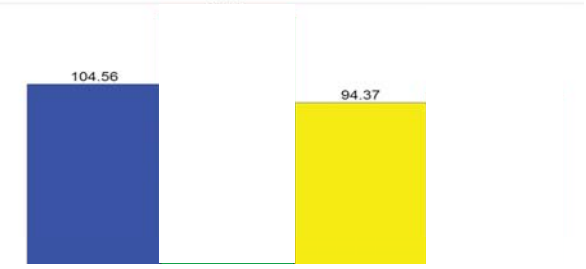
-- Patricia Devin, Swisher County Producer

suggests two things. First, one must be careful about reading too much into the average numbers reported for such small groups. For example, with only seven producers to evaluate, we can not be certain that the average accurately reflects dryland corn production by stable farmers across the state. Second, the limited producer data in the stressed and successful groups does not indicate that you would not find successful or financial stressed dryland corn producers throughout. In order to preserve the confidentiality of the producers involved, data is not provided for groups with too few producers. While the small numbers prevent drawing many conclusions about industry trends, there may be much to learn from the example of a few producers that meet a unique set of characteristics.

The average ProScore rating for all dryland corn production was 24.2. The stable group's collective ProScore averaged just below a 19.4 rating. The yield for all dryland corn production in the FARM Assistance program was 104.56 bushels per acre. The successful producers exceed the average by over 30 bushels per acre, while the stable and stressed producers both hover around the average. The main difference between these three groups is the variable production costs. The group of financially successful producers has higher seed, fertilizer, and herbicide costs per acre as compared to both the stable and stressed groups. On the other hand, insecticide and harvesting costs per bushel were both well above average for the stressed group.

Figure 15 provides the anticipated yields and costs of production for the 20 FARM Assistance participants that produce irrigated corn. The three financially stressed producers have a ProScore rating of 4.4, which is well below the average of 25.7. As is to be expected, the stressed producers have the lowest yield per acre with an average 157.67 as compared to 181.86 for the entire group of irrigated corn producers. Some of the variable production costs are also lower than the average. The successful and stable producers appear to have very similar production costs across the board. The successful group pays more for harvest costs per bushel but less for harvest costs per acre compared to the stable and stressed producers. As a result of the structure of the data collected by FARM Assistance, high variable harvesting costs are an indication of a producer paying for custom harvesting services. In some situations, the expense of custom harvesting can be less than the overhead costs associated with owning harvesting equipment.

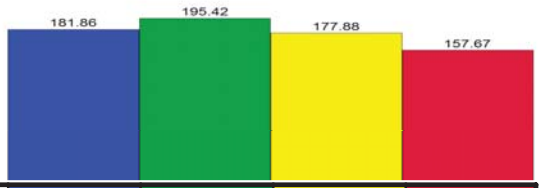
Figure 14. Yield and Cost Comparisons for Dryland Corn.



	All	Successful	Stable	Stressed
Number of Producers	10	NA	7	NA
ProScore Rating	24.2		19.4	
Yield (bu/acre)	104.56		94.37	
Seed ($/acre)	30.91		27.94	
Fertilizer ($/acre)	59.36		53.17	
Herbicide ($/acre)	19.88		15.54	
Insecticide ($/acre)	4.74		5.21	
Irrigation Costs ($/acre)	0.00		0.00	
Harvest Costs / Yield Unit	0.10		0.07	
Harvest Costs / Acre	5.70		3.53	

"The program was very helpful in understanding the financial side of our operations."
-- Dave Goodrich, Parker County Producer

Figure 15. Yield and Cost Comparisons for Irrigated Corn.



	All	Successful	Stable	Stressed
Number of Producers	20	8	9	3
ProScore Rating	25.7	37.9	22.0	4.4
Yield (bu/acre)	181.86	195.42	177.88	157.67
Seed ($/acre)	47.47	48.90	45.91	48.33
Fertilizer ($/acre)	79.65	83.37	83.45	58.33
Herbicide ($/acre)	27.41	27.70	28.40	23.67
Insecticide ($/acre)	8.80	9.50	9.11	6.00
Irrigation Costs ($/acre)	143.14	144.28	142.84	141.00
Harvest Costs / Yield Unit	0.07	0.11	0.04	0.05
Harvest Costs / Acre	12.33	8.81	14.89	14.00

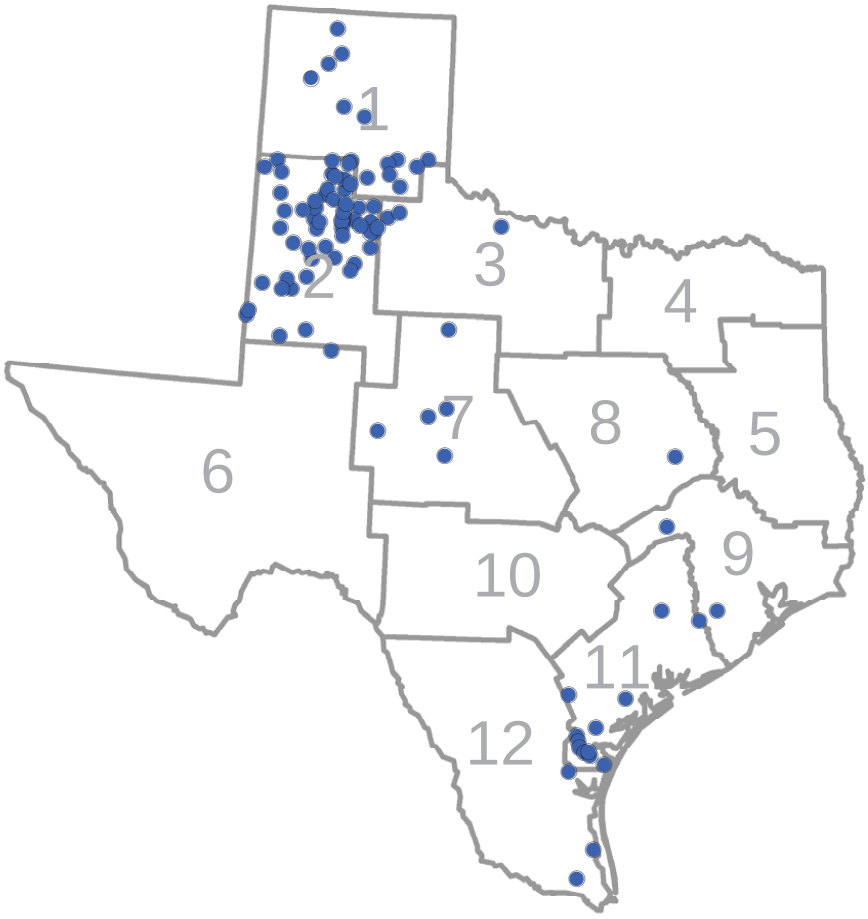
Commodity Analysis: Cotton Production

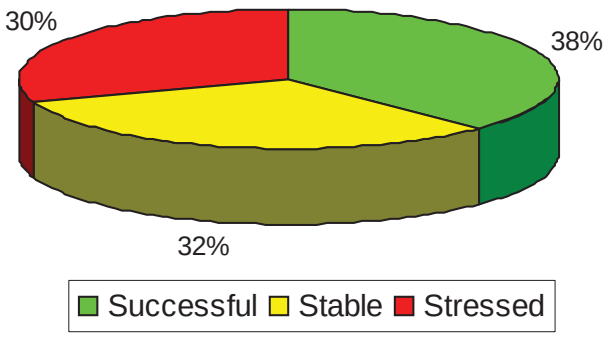
The map in Figure 16 shows the 96 FARM Assistance participants that have at least 15% of their acres in cotton production across the state. These cotton producers are scattered throughout the Northern Panhandle, Southern Plains, Central Texas, and the Coastal Bend. The pie chart indicates the general success level found among the cotton producers in the FARM Assistance system. The broad group of all farms and ranches were evenly divided among stressed, stable, and successful categories. The cotton producing group has a slightly higher proportion of successful producers.

Figure 17 provides a comparison of the 66 participants that produced dryland cotton. Of the 18 producers falling into the financially stressed category, the average ProScore rating was -7, with an average budgeted yield of 404 lbs per acre. The successful group had the lowest per acre budgeted yield (359 lbs), but variable production costs were also below average for every category. The stable group, while having the highest budgeted yield at 467 lbs per acre, generally also had the highest input costs for herbicide, insecticide and harvest costs per acre as compared to the other two groups.

Figure 18 presents a comparison of 68 irrigated cotton producers. The financially stressed producers

Figure 16. Location and Success of Cotton Participants.





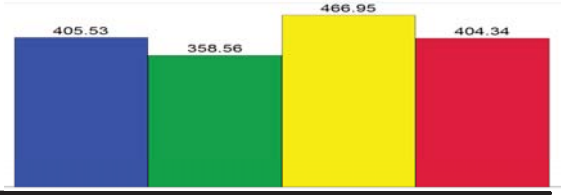
"I think this program is beneficial to the producer and the lender. It gave me more detailed specifics where I am at today and where I am going in the future."

– Myles Frische, Moore County Producer

had an above average yield per acre (839 lbs), but a -8.3 Proscore rating. The most interesting thing to note with this category is the higher than average cotton variable production costs on items such as seed, fertilizer, herbicide, insecticide, and harvest costs per pound. This cost differential suggests that these producers may be paying too much to achieve such yields. Yield per acre for the successful group was 850 lbs and 736 lbs for the stable group.

Another factor that could be contributing to the high yields for

Figure 17. Yield and Cost Comparisons for Dryland Cotton.



	All	Successful	Stable	Stressed
Number of Producers	66	27	21	18
ProScore Rating	22.0	45.8	16.1	-7.0
Yield (lbs/acre)	405.53	358.56	466.95	404.34
Seed ($/acre)	27.61	25.11	27.23	31.82
Fertilizer ($/acre)	18.00	16.31	18.24	20.26
Herbicide ($/acre)	20.43	20.00	23.21	17.84
Insecticide ($/acre)	7.93	5.09	12.34	7.04
Irrigation Costs ($/acre)	0.00	0.00	0.00	0.00
Harvest Costs / Yield Unit	0.11	0.10	0.11	0.11
Harvest Costs / Acre	4.42	4.33	6.00	2.70

"Everyone that is serious about staying in agriculture should not pass this program up."
– Ben Dieterich, McLennan County Producer

the least successful producers has to do with producer expectations. The FARM Assistance program is a long range planning tool; therefore, the comparisons drawn are based on planned or budgeted numbers rather than actual observations. Additionally, the FARM Assistance team members have observed that the least successful producers have the poorest understanding of their own operation. One explanation of the higher yields is that they reflect unrealistic yield expectations by poor managers.

Figure 18. Yield and Cost Comparisons for Irrigated Cotton.

	All	Successful	Stable	Stressed
Number of Producers	68	27	20	21
ProScore Rating	21.9	48.5	17.9	-8.3
Yield (lbs/acre)	813.26	850.31	736.04	839.17
Seed ($/acre)	38.14	38.69	31.87	43.39
Fertilizer ($/acre)	37.27	36.65	35.09	40.14
Herbicide ($/acre)	29.85	32.35	24.80	31.46
Insecticide ($/acre)	10.84	8.28	9.72	15.19
Irrigation Costs ($/acre)	64.22	70.04	57.25	63.36
Harvest Costs / Yield Unit	0.10	0.10	0.09	0.11
Harvest Costs / Acre	6.97	7.38	10.40	3.19

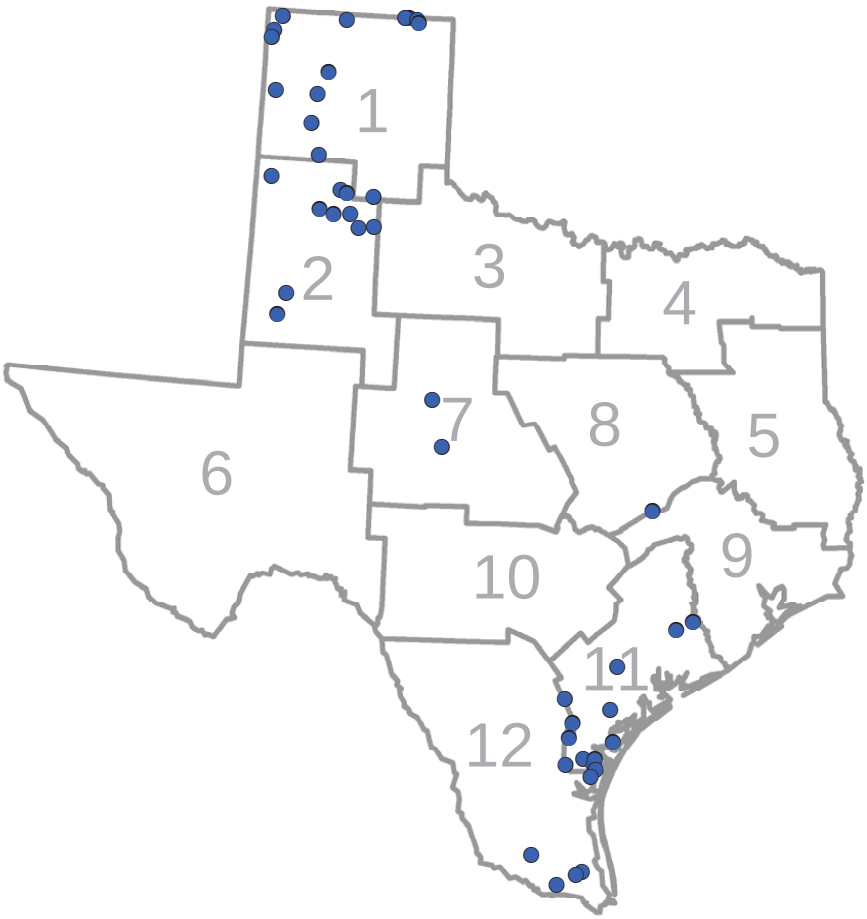
Commodity Analysis: Grain Sorghum Production

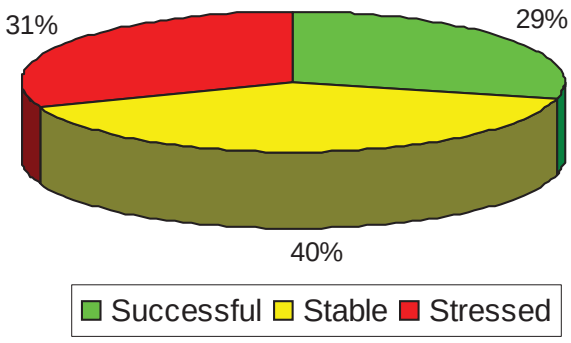
The map in Figure 19 shows the location of the 45 producers in the FARM Assistance program with more than 15% of their crop acres in grain sorghum. These farms are predominantly in the Northern Panhandle, Southern Plains, and Coastal Bend regions. The financial outlook for grain sorghum production is predominantly stable (40%), 29% successful, and 31% financially stressed.

Figure 20 presents the yield and cost comparisons for the 37 participants that grow dryland grain sorghum. Like other dryland crops, per acre crop costs are typically low. The most successful producers have the lowest yield per acre as compared to the stable and financially stressed producers, but also have the lowest overall variable costs. The financially stressed producers have a 1.6 ProScore, yield per acre similar to the overall average, and the highest fertilizer costs and harvest costs per acre. The other variable production costs were in line with the average variable costs of all the grain sorghum producers.

The average ProScore for all irrigated grain sorghum producers is 20.1 (Figure 21). The range of the average ProScore ratings is over 40 for the successful producers to just under 5 for the stressed producers. The successful producers have the second best projected yield with the

Figure 19. Location and Success of Grain Sorghum Participants.





"The analyst was very informative and gave us a look at our present and future outlooks and it was easy."

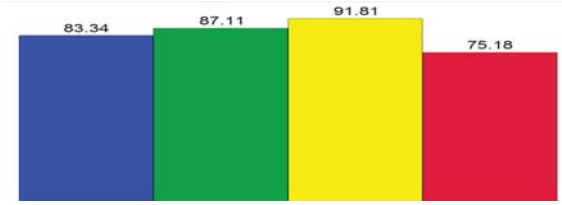
– Summer Wolf, Archer County Producer

highest level of fertilizer, herbicide, insecticide, and irrigation costs. The stressed producers have the lowest yield per acre with variable production costs which are in line with the overall average of the entire 14 producers. As was mentioned previously, one must be cautious not to read too much into the average numbers reported for such small groups.

Figure 20. Yield and Cost Comparisons for Dryland Grain Sorghum.

	All	Successful	Stable	Stressed
Number of Producers	37	10	16	11
ProScore Rating	18.9	39.1	18.3	1.6
Yield (bu/acre)	52.90	40.91	59.69	53.94
Seed ($/acre)	7.71	6.50	8.47	7.70
Fertilizer ($/acre)	21.55	10.17	24.79	27.17
Herbicide ($/acre)	10.61	7.36	10.73	13.40
Insecticide ($/acre)	1.95	1.10	3.21	0.91
Irrigation Costs ($/acre)	0.00	0.00	0.00	0.00
Harvest Costs / Yield Unit	0.09	0.09	0.10	0.09
Harvest Costs / Acre	4.63	2.15	2.70	9.70

Figure 21. Yield and Cost Comparisons for Irrigated Grain Sorghum.



	All	Successful	Stable	Stressed
Number of Producers	14	4	4	6
ProScore Rating	20.1	41.3	22.2	4.5
Yield (bu/acre)	83.34	87.11	91.81	75.18
Seed ($/acre)	8.50	6.13	7.41	10.80
Fertilizer ($/acre)	27.02	35.00	26.01	22.39
Herbicide ($/acre)	13.02	16.23	11.23	12.07
Insecticide ($/acre)	1.89	5.87	0.75	0.00
Irrigation Costs ($/acre)	55.44	69.85	63.50	40.45
Harvest Costs / Yield Unit	0.14	0.11	0.18	0.13
Harvest Costs / Acre	5.09	3.07	7.25	5.00

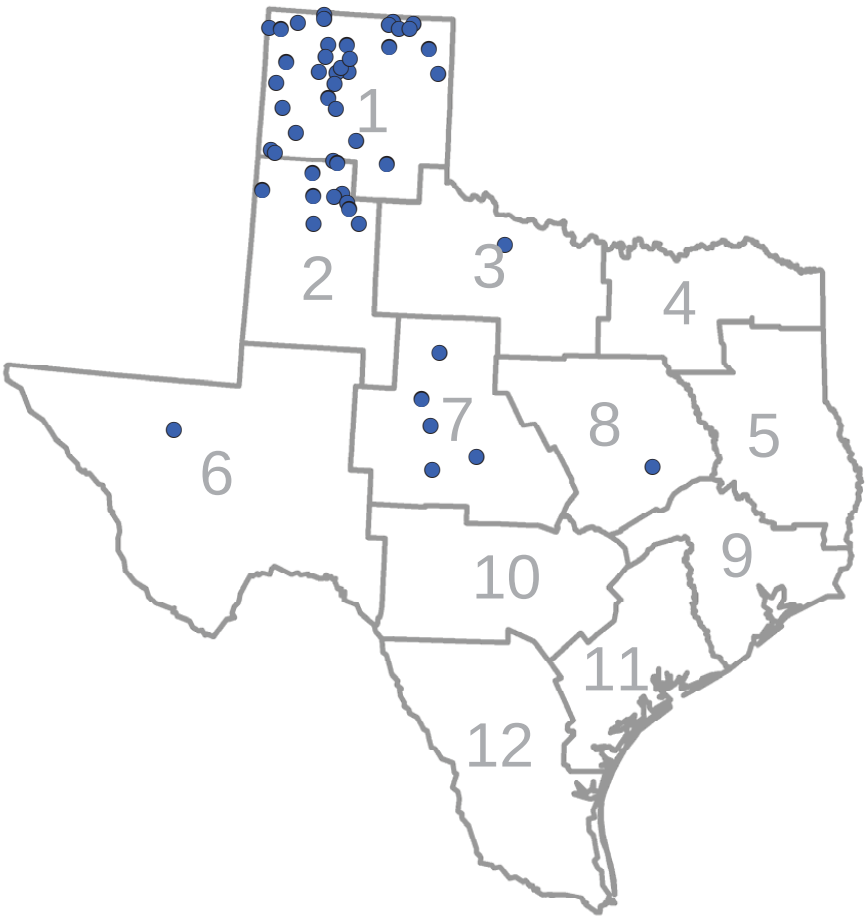
Commodity Analysis: Wheat Production

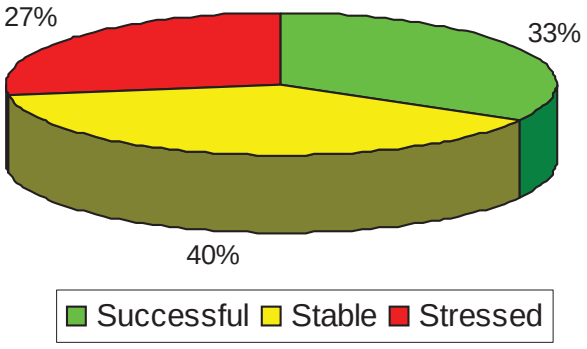
The map and pie chart in Figure 22 represents the 51 producers in the FARM Assistance program with more than 15% of their planted acres devoted to wheat production. These producers are found primarily in the Northern Panhandle and Southern Plains, with a few scattered in the Central and West Texas regions. Stable producers comprise 40%, successful producers consist of 33%, and stressed producers represent 27%.

Figure 23 contains the yield and cost data for the 44 producers that grow dryland wheat. The financially stressed group has the highest yield per acre at 25.41 and the lowest ProScore rating of -4.9. The average variable production costs of the stressed group are all near the average for dryland wheat producers; however, fertilizer and harvest costs per acre are well above average. The successful producers have a projected yield of approximately 22 bushels per acre, while the stable producers have the lowest budgeted yield (20 bushels per acre). The successful producers predominantly have lower variable costs. The stable group on the other hand, have slightly higher than average seed, herbicide, insecticide, and harvest costs.

Yield and cost comparisons for 30 producers of irrigated wheat are found in Figure 24. The irrigated

Figure 22. Location and Success of Wheat Participants.





"I recommend FARM Assistance to any producer that wants to get a better handle on their financial position. The information is practical and will lay a foundation for future financial decisions."

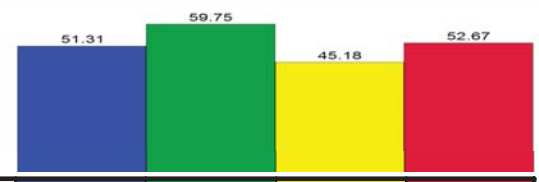
– Dee Vaughan, Moore County Producer

wheat production among FARM Assistance subscribers has an average yield of 51.31 bushels per acre. The wheat producers that were labeled financially successful had an average budgeted yield of almost 60 bushels per acre. However, the successful producers spend slightly more on fertilizer, insecticide and irrigation to achieve a higher yield. The 9 financially stressed producers had close to the average yield, generally lower fertilizer, herbicide, and irrigation costs, but higher harvest costs.

Figure 23. Yield and Cost Comparisons for Dryland Wheat.

	All	Successful	Stable	Stressed
Number of Producers	44	14	17	13
ProScore Rating	18.7	41.4	17.9	-4.8
Yield (bu/acre)	22.34	22.23	20.09	25.41
Seed ($/acre)	4.04	3.44	4.46	4.12
Fertilizer ($/acre)	5.61	4.95	2.82	9.96
Herbicide ($/acre)	5.75	5.93	6.16	5.02
Insecticide ($/acre)	0.61	0.75	0.65	0.42
Irrigation Costs ($/acre)	0.00	0.00	0.00	0.00
Harvest Costs / Yield Unit	0.05	0.01	0.07	0.07
Harvest Costs / Acre	8.39	5.86	7.70	12.03

Figure 24. Yield and Cost Comparisons for Irrigated Wheat.



	All	Successful	Stable	Stressed
Number of Producers	30	8	13	9
ProScore Rating	19.8	39.6	19.0	3.4
Yield (bu/acre)	51.31	59.75	45.18	52.67
Seed ($/acre)	6.98	6.75	5.72	9.00
Fertilizer ($/acre)	24.00	23.94	24.69	23.07
Herbicide ($/acre)	8.10	8.13	8.93	6.89
Insecticide ($/acre)	1.65	2.63	0.65	2.22
Irrigation Costs ($/acre)	55.55	61.88	56.43	48.67
Harvest Costs / Yield Unit	0.06	0.02	0.07	0.10
Harvest Costs / Acre	8.80	5.63	7.85	13.00

Commodity Analysis: Crop Production Comparison

It is also useful to look at what differences exist among crop producers. The average crop farming participant has an average of $695,900 in total receipts. Crop sales make up 82% of total receipts (Figure 25), government payments make up another 12%, and 3% comes from crop insurance indemnities. The remaining 3% comes from livestock sales and other receipts. Corn is considered one of the highest valued crops, which is evident in the total receipts of the corn producers (Table 7). The 29 corn producers had average total receipts of $1.54 million. Wheat came in second with an average of $828,900 and sorghum ranked third with $663,900. Cotton, which is typically thought of as a high valued crop, had the lowest average value of crop receipts with $551,200, but was also the smallest in average acreage among those participating.

When comparing the make up of farm receipts, corn producers receive the highest portion of their receipts from raw commodity sales (Figure 26). On average, the 26 corn producers received 90% of their receipts from crop sales and collected another 6% from government payments and crop insurance indemnities. Corn and cotton producers both had the same 2% in livestock receipts. In contrast, wheat farms were the most diversified, earning 6% of their receipts from livestock sales (Figure 29), while grain sorghum had 4%. Government payments were the highest for the cotton producers at 18% and crop sales accounted for 74% of total receipts.

Given the differences, which group has the greatest projected financial success? Based on the FARM Assistance ProScore rating (Table 7), the 29 corn producers have the highest projected level of financial success. Among all crop farms, the average ProScore rating is 21.42, while corn producing participants have an average ProScore rating of 25.29. With a ProScore of 21.25, the cotton producing participants compare favorably as well. Sorghum and wheat producers both fall just below the average for all crop farms with respective ProScore ratings of 19.69 and 20.13.

Table 7 also provides a snapshot of the average production characteristics such as size, land tenure, and the intensity of the various enterprises. In terms of total acres, the operations that planted at least 15% of their acres in wheat tended to be significantly larger than the average. This tendency is not surprising since that group has already been characterized as being the most diversified into livestock production. While the average crop farm is slightly larger than 2,200 acres, the average wheat producer operates on a little over 3,200 acres. Following the same logic, on average, wheat producers have the most activity in cow-calf and stocker enterprises. Cotton producers tended to be the smallest producers both in terms of acreage and total receipts. Corn farms were the largest in total acreage at just under 4,000 acres and sorghum farms were similar to the average at 2,258 total acres, respectively.

Table 7. Average Production Characteristics of Crop Farms.

	Crop	Corn	Cotton	Sorghum	Wheat
Number	141	29	96	45	51
ProScore Rating	21.42	25.29	21.25	19.69	20.13
2007 Total Receipts ($1,000)	695.9	1543.3	551.2	663.9	828.9
Total Acres	2279	3952	1689	2258	3239
Total Cash Lease Acres	459	970	329	448	651
Share Acres	977	1326	925	1130	1051
Total Owned Acres	844	1661	436	680	1538
Corn Acres	293	1353	98	125	368
Cotton Acres	616	232	881	580	277
Sorghum Acres	290	277	237	806	274
Wheat Acres	397	815	116	323	1190
Improved Pasture Acres	19	66	5	22	39
Native Pasture Acres	104	133	35	99	269
Cows (# head)	7	7	4	5	12
Stockers (# head)	18	28	11	37	89

"FARM Assistance is a valuable tool that is needed for making sound financial decisions. This program could make the difference for a farmer to succeed."

– Larry Beseda, Cochran County Producer

Components of Total Receipts by Commodity ($1,000).

Figure 25. Crop Farms.

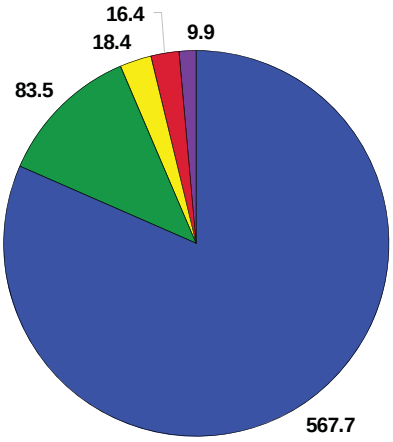
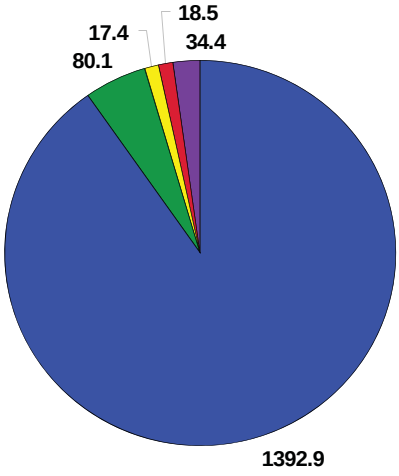


Figure 26. Corn Producers.



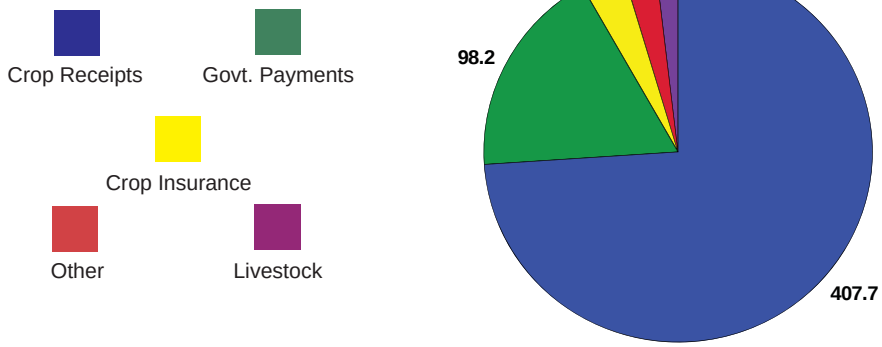


Figure 27. Cotton Producers.

Figure 28. Grain Sorghum Producers.

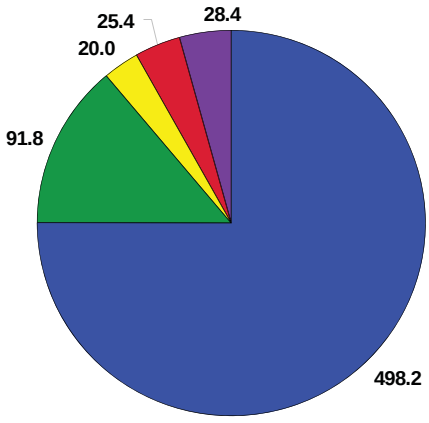
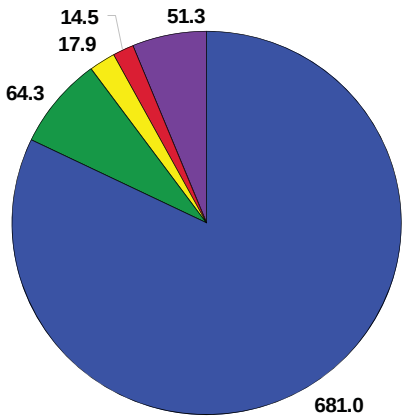


Figure 29. Wheat Producers.



"I was pleased with the program and suggest that everyone needs to look into using it."

– Edward Jungmann, Nueces County Producer

Table 8. Average Asset and Debt Structure for Crop Farms.

	Crop	Corn	Cotton	Sorghum	Wheat
Number	141	29	96	45	51
Real Estate Value Per Acre	277	362	240	280	261
Machinery Value Per Acre	192	222	192	204	162
Long Term Debt Per Acre	101	129	85	91	93
Intermediate Debt Per Acre	67	46	78	66	50
Debt To Assets %	42.2	34.2	44.9	36.1	43.6

Share renting is the most prominent land tenure arrangement for all crop farms, accounting for 43% of total acres for the average crop producer. Cash leases are least likely (20% of total acres), and the average crop farm owns 37% of its productive land. Each of the commodity groups operate over 900 acres of share rented land and share rents account for over half the acreage of cotton and sorghum producers. The extent of cash lease agreements ranges from 19-25% depending on commodity specialization and is used mostly by corn producers. At 47% of their total land (over 1,500 acres), wheat farms have the highest level of land ownership. Corn producers are second with approximately 42% land ownership, followed by 30% land ownership for grain sorghum producers and 26% for cotton producers.

When considering diversification, it has already been noted that wheat farms tend to diversify the most into livestock. Diversification among crops is also a consideration for reducing risk. The crop categories are defined by those producers that have at least 15% of their acreage dedicated to a crop. Given the level of acres devoted to a primary crop, cotton farms tend to specialize more than corn, sorghum, or wheat

"I wish this program would have been available in the 1970s when I first started farming and ranching. Potentially this analysis could have saved me a lot of 'experience.'"

– Dale Artho, Deaf Smith County Producer

producers. For the average cotton producer, actual cotton acres make up 52% of the total acres. Corn, sorghum and wheat producers plant approximately 35% of their acres to the primary crop.

Table 8 contains the average debt structure and asset investment for the different crop farms. Recall from Table 7 that the wheat producers owned the largest percentage of their acreage. Even though they own nearly half of their productive acres, the wheat group has the third largest investment in real estate at $261 per acre. Corn and grain sorghum both had higher overall levels of real estate investment per acre with $362 and $280, respectively. In terms of investment in machinery and equipment, corn producers have the most relative investment with $222 per acre. The debt levels for the different types of crop farms contain striking differences. The average operation carries $67 per acre in intermediate debt, which is usually used to secure machinery and equipment, as well as an average $101 per acre in long term debt. Cotton producers have the lowest level of long term debt per acre and the highest level of intermediate debt per acre. In addition, they have the least amount of long-term real assets. The overall debt level, measured relative to total assets, averages just under 42% for all crop farms. Cotton and wheat farms are at the upper end of the range, averaging 44.9% and 43.6%, respectively, while corn and sorghum producers have 34.2% and 36.1% of their assets secured with debt, respectively. The level of debt for corn and cotton farms highlights the fact that debt alone rarely tells the whole story of financial success. Corn farms have the lowest debt level, and cotton farms have one of the highest. However, the FARM Assistance ProScore indicates future success for both groups are similar.

Financial performance measures are found in Table 9. Farms that meet the minimum specialization in corn production have the highest average net cash farm income with $117.10 per acre. Wheat production is the least profitable with $76 in net cash income per acre and the lowest level of crop receipts per planted acre ($214.60). Total cash expenses divided by total receipts is an efficiency ratio that indicates the efficiency of a farm's revenue-generating capacity. The average crop farm will spend $0.70 in cash expenses to generate one dollar in receipts, indicating 70% efficiency. At less than 65%, the grain sorghum and wheat producers are the most efficient while cotton producers are the least efficient at 72%. The interest expense-to-receipts ratio indicates the intensity of the expenses dedicated to debt service. Corn has the lowest interest-to-expense ratio of 5%, cotton and sorghum producers have an interest-to-receipts ratio of 6%, and wheat has the highest at 7%. While not a cash expense, depreciation is a drain on the farm's profit. The depreciation-to-receipts ratio indicates the portion of total receipts necessary to cover depreciation expenses. All of the producers have a similar depreciation-to-receipts level of roughly 7% with the average of all crop farms at 8%.

Table 9. Average Financial Performance of Crop Farms.

	Crop	Corn	Cotton	Sorghum	Wheat
Number	141	29	96	45	51
Net Cash Farm Income per Acre	84.7	117.1	81.6	96.6	76.1
NCFI Standard Deviation	99.5	197.0	78.3	92.7	110.7
Crop Receipts Per Planted Acre	277.1	374.7	271.3	262.0	214.6
Expense to Receipts	0.70	0.67	0.72	0.64	0.63
Interest Expense to Receipts	0.06	0.05	0.06	0.06	0.07
Depreciation to Receipts	0.08	0.07	0.07	0.07	0.07
Family Living	37,653	38,449	40,126	41,482	37,214
Off Farm Income	11,287	6,492	12,123	15,177	13,082
Average Return on Assets %	11.8	13.2	11.5	12.1	12.0
Average Change in Real Net Worth %	11.9	12.3	12.0	10.6	11.2
Avg Prob Negative Working Capital %	23.9	12.6	25.4	21.1	25.5

"A must for anyone in the agriculture business."

-- Candys Wiginton, Menard County Cow-Calf and Sheep Producer

Non-farm related items may also play an important role in the financial success of a farm operation. Off-farm income and family living expenses can support or drain the operation's cash position and eventually the ability of the farm to maintain and grow equity over time. Logically, we might expect to find that the most successful operations have a significant advantage in off-farm income. This is not necessarily the case for the different commodity groups. The corn farms were the most successful in terms of the overall ProScore rating and had the lowest level of off farm income, but both the sorghum and wheat farm groups had higher average off-farm income. In terms of expenditures on family living, there doesn't appear to be enough of a difference among the types of crop farms to conclude that family living expenses contribute to the varying levels of success for the commodity groups.

The risk present among the different types of crop farms is very similar. The standard deviation of the net cash farm income (NCFI) is one measure of risk. The average NCFI plus and minus the standard deviation indicates a range of possible NCFI that would occur about 70% of the time. For example, the average crop farm would expect a net cash farm income between negative $14.80 per acre and $184.20 per acre roughly 70% of the time. A rough interpretation suggests that the average farm faces a 15% chance of NCFI below negative $14.80 per acre, along

"This course has helped me in so many ways, I have been a manager for a farm for sixty-five years. This course will be a great help to me. Thank You!"

-- Mable Kirkpatrick, Lamb County Producer

with a 70% chance of being in the range described by the average NCFI and the standard deviation, and finally another 15% chance of having NCFI above $184.20 per acre. Another picture of risk is the cash flow, or liquidity risk faced by each group. The average probability of negative working capital indicates the cash flow risk faced by each group. The average crop farm would expect a 24% chance of not having the short-term cash or other assets needed to meet short-term cash payments and other obligations in any given year. Cotton and wheat farms fall above the 24% average in working capital risk, while corn farms have the most stable cash and working capital position, only facing a 12.6% chance of a liquidity problem.

Other performance factors describing the financial outlook for the crop farms are the average return on assets and the annual growth in real net worth. Relative profit described by the percentage return per dollar of assets is 11.8% for the average crop farm. With the exception of cotton farms, each group meets or slightly exceeds the average 11.8% return on assets. Cotton farms, on average, fell just below at 11.5% annual projected return. The average change in real net worth provides the expected annual growth rate in the farm's equity position. The equity growth indicates a wider variety of financial performance among the commodity groups and follows the rankings described by the overall ProScore rating. Corn farms managed the highest equity growth

"FARM Assistance provided by [The Texas AgriLife Extension Service] will help me make the important financial projections so critical to the financial stability of my farm in the next ten years."

– David Block, Moore County Producer

with 12.3% annually, followed by cotton farms (12%) and wheat farms (11.2%). Again, sorghum fell just short of the other groups with a 10.6% annual expected growth in real net worth. In summary, financial stress and success exist across all types of crop production. Although crop categories have some overlap of participants, tendencies suggest that groups with significant acres of corn and cotton outperform groups with a large proportion of wheat and grain sorghum production.

A Final Comment

The FARM Assistance team extends its appreciation to everyone that makes our program possible. The continued support of the Texas AgriLife Extension Service, the State of Texas, the Agriculture Industry, and especially the program subscribers make possible the great privilege of serving the people of Texas Agriculture. We look forward to serving you in the future by helping all of Texas Agriculture address difficult and risky decisions with the power of information.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