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Toll-Free Tel: (877) TAMRISK Web: http://farmassistance.tamu.edu Photographs by David P. Ernstes. Layout and design by David P. Ernstes. October 2006 Edited by Candice Foster. April 2009



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 financial 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 2009: 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 1,280 strategic farm and ranch analyses for Texas producers. Program participants represent nearly 2.3 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 industry 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 in this annual report includes 176 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 grain crops seem to fare better than cotton producers. A final note regarding 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 a FARM Assistance specialist near you:

Amarillo DeDe Jones 806-677-5667 Patrick Warminski 806-677-5600

College Station Steven Klose Greg Kaase Nicole Gueck Toll free 1-877-TAMRISK Corpus Christi Mac Young 361-265-9203 San Angelo Wade Polk 325-653-4576

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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.

Texas Agriculture 2009: The Road to Success

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

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.



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.



The FARM Assistance Team



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 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

"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

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 Associate with the Texas AgriLife Extension Service based in College Station, Texas. 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

n 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

xtension 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. During 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



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 more 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 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

he 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:

- 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 1,283 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 twelve 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. 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 3,000 alternative scenarios and their associated risks have been analyzed for individual producers statewide - representing almost 2.3 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 \$23,200 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 \$232,000 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 multiyear 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 1,280 analyses, this report only includes the most current and upto-date projections for any analysis or data series. For the 2009 Road to Success, 176 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.

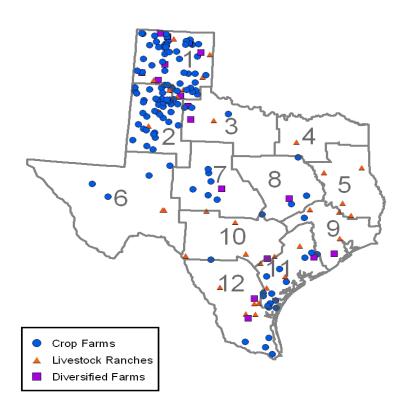
The 176 farms are identified in Figure 1. The regions identified in the Texas map are the 12 Texas AgriLife Extension Service districts. As the map indicates, our participant database is made up of individuals from all areas of Texas. Participation patterns follow the major commercial crop producing regions in the state, with significant representation in the Northern and Southern High Plains as well as the Coastal Bend Regions.

In total, the 176 operations summarized in this report represent 401,578 acres of productive farm and ranch land. Of that total, 92,870 acres are in irrigated production and a little over one quarter (27%) is native pasture land. Livestock production in the group amounts to almost 5,800 head of mother cows and almost 2,500 head of stocker calves. The value of all assets held by the participants totals \$240 million, and a total net worth of \$172.8 million is claimed by the 176 farm and ranch owner/operators. The information provided in this report is primarily for the year 2009, 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.

The first step in the process of analyzing 176 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

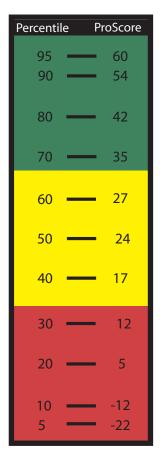
Figure 1. FARM Assistance Participants.



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

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 – ¹/₄ 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 ($4.5 + 6 - \frac{1}{4} \times 25$).

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 176 farms and ranches is 20.63. 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 42 corresponds to the 80th percentile in the FARM Assistance database. That means if you have a ProScore of 42 or better, your outlook is better than 80 percent of the producers in the database. On the other hand, if your ProScore is -12, 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 176 producers was split into three categories of projected 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 "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

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 20.63, the 59 most successful producers were rated at 32 or higher with a 48.24 average. The stable category represents the 59 producers with a ProScore ranging from 13 to 32 and averaging 22.34. The financially stressed category's ProScore averages -9.19, and consists of the 58 producers that fell below a 13 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 2,108 acres, averaged \$186,700 more in receipts than the average of all farms and ranches. Conversely, stressed producers earned \$263,400 less in receipts than the average of all farms and ranches while having the smallest average sized operations (2,061 acres). Stable producers had the largest size farms in terms of land, with 390 more acres and \$72,200 more in total receipts than the average of all farms and ranches. A closer look at more specific production data indicates that the stable and 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 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. Financially stressed producers had the highest proportion of cash leased acres.

Across all producers, the average total receipts in 2008 were \$587,000. Of that total, approximately 77% came from crop sales (Figure 3), 12% from crop insurance indemnities and croprelated government payments, and 9% from livestock receipts. The 'Other Receipts' category represents 2% 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.

Table 1. Average Production Characteristics by Success Level.

	All Farms & Ranches	Successful	Stable	Stressed
Number	176	59	59	58
ProScore Rating	20.63	48.24	22.34	-9.19
2009 Total Receipts (\$1,000)	587.0	773.8	659.2	323.6
Total Acres	2282	2108	2672	2061
Total Cash Lease Acres	753	611	870	778
Share Acres	763	1025	760	495
Total Owned Acres	789	498	1063	806
Corn Acres	195	318	226	37
Cotton Acres	338	480	209	324
Sorghum Acres	284	202	368	282
Wheat Acres	362	410	540	132
Improved Pasture Acres	57	20	110	41
Native Pasture Acres	623	275	580	1020
Cows (# head)	33	17	38	44
Stockers (# head)	14	9	25	7



"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).

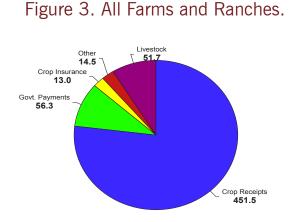
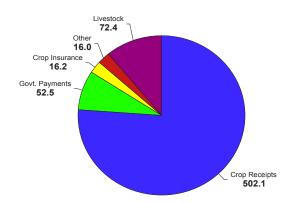


Figure 5. Stable Farms and Ranches.



The financially successful group of producers generates total receipts of \$774,000. 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 59 most successful operations have a higher proportion of receipts from crop activities (Figure 4). Crop sales alone make up 83% of receipts. When crop insurance and government payments are considered, crop related receipts make up 94% of the average total receipts. Livestock receipts and 'Other Receipts' make up the remainder of the total with a 5% and 1% share, respectively.

The financially stable group of

Figure 4. Successful Farms and Ranches.

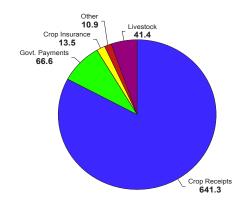
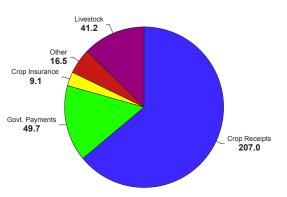


Figure 6. Stressed Farms and Ranches.



producers generates total receipts of \$659,000. The proportional mix of receipts from different sources almost mirrors that of the entire group of producers (Figure 5), with 86% coming from crops and 11% attributed to livestock.

Financially stressed producers have the lowest total receipts and the lowest percentage of crop receipts. "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

With an average of \$323,640 in total receipts, the stressed group has approximately \$263,400 fewer receipts than the overall average. Stressed producers earn approximately 13% of their receipts from livestock production. Crops and related receipts account for 82% 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 reflects more than 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 \$439 invested in real estate assets per productive acre. The successful producers have a significantly lower real estate investment. At \$119 per acre, their investment is roughly one-quarter of the overall average. Stressed producers have the largest investment in real estate with \$819 per productive acre.

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 \$182 in equipment and machinery per acre. By comparison, both successful and stable producers have a slightly below-average level of machinery investment, while 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 \$129 per acre. Another way to look at this measure is that every productive acre in the operation is carrying \$129 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 59 financially successful producers have an average \$66 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. The most successful producers carry an average of \$81 in intermediateterm debt per acre, higher than the \$70 average overall, but similar to the \$78 per acre carried by stressed producers. 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 59 operations carried the highest debt level at 45.1% debt-to-asset ratio. In general, if an operation's percentage return on assets is

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

	All Farms	Successful	Stable	Stressed
Number	176	59	59	58
Real Estate Value Per Acre	439	119	386	817
Machinery Value Per Acre	182	166	161	218
Long Term Debt Per Acre	129	66	128	194
Intermediate Debt Per Acre	70	81	50	78
Debt To Assets %	38.4	45.1	30.9	39.2



"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

	All Farms & Ranches	Successful	Stable	Stressed
Number	176	59	59	58
Net Cash Farm Income per Acre	95.9	153.8	102.7	30.1
NCFI Standard Deviation	101.5	130.2	117.5	55.9
Expense to Receipts	0.65	0.62	0.58	0.77
Interest Expense to Receipts	0.09	0.06	0.07	0.14
Depreciation To Receipts	0.10	0.06	0.09	0.14
Family Living	33,421	27,922	33,755	39,095
Off Farm Income	14,977	14,968	14,233	15,744
Average Return On Assets %	10.4	18.2	11.2	1.4
Average Change in Real Net Worth %	12.5	21.7	13.1	2.5
Avg Prob Negative Working Capital %	25.3	15.5	16.3	44.3

Table 3. Average Financial Performance by Success Level.

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 (39.2% and 30.9%, 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 \$154, compared to \$103 and \$30 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 \$103 and a \$118 standard deviation. That means that just over two-thirds of the time he would expect to see a NCFI in the range between - \$15 per acre and \$221 per acre. A larger standard deviation means a wider, more risky range is possible with the same 70% probability. The stable and stressed groups face a much more significant risk of negative net cash farm income.

The expense to receipts ratio measures the efficiency of a producer's ability to generate receipts. The stable producers are the most efficient because they spend \$0.58 in operating expenses to generate \$1.00 in receipts. The relative portion of receipts that pay for interest expenses and depreciation expenses are roughly \$.07 and \$.09, respectively.

The successful producers spend

more in operating expenses (\$0.62 per \$1.00 in receipts), but less in interest and depreciation expense. The relative portion of receipts that pay for interest expenses and depreciation expenses are roughly \$.06 each.

The stressed producers, however, are much less efficient. They spend \$0.77 for operating expenses and \$0.14 in interest for every dollar of receipts. That only leaves \$0.09 of every dollar to pay for depreciation, principal payments, family living, taxes, and capital purchases. Depreciation expense for the group also totals \$0.14 per dollar of receipts, meaning most of the group is in a negative overall profit position.

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. "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

Successful producers spend, on average, \$27,922 per year while the stressed producers spend an average of \$39,095 on family living expenses which is higher than the overall average. It is not 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 \$15,744 annually from off-farm sources. Stable producers generate the least off-farm income with \$14,233; meanwhile, the successful producers earn \$14,968.

The final three performance measures and characteristics are the factors included in the FARM Assistance ProScore rating. All farms and ranches average a 10.4% Return on Assets (ROA). Relative to the ROA usually quoted for agriculture, an ROA of more than 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 18.2% ROA, while the stable and stressed producers have an outlook of 11.2% and 1.4% 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 stressed group, that for every dollar in receipts, \$0.77 is committed to operating expenses, \$0.14 is committed to interest expense, and \$0.09 is drained through depreciation. Add family living





"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

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 (2.5%) annual growth in real net worth, likely due to increasing asset values. The successful producers' operations however, are forecasting a 21.7% 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 approximately 16% probability of negative working capital, the financially stressed face an average 44% chance of a shortage of cash and other liquid assets relative to short-term cash obligations.

Comparisons Considering Financial Success

All 176 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 176 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 42% of the FARM Assistance participants showing a successful financial outlook. Thirty (30) percent of the region is considered stable and only 28% are financially stressed. The arid region of South Central and West Texas (Districts 6, 7, and 10) follows with an equal proportion of financially successful producers (42%), while 21% are considered stable and 37% are financially stressed.

The Northern Panhandle (District 1) has a similar proportion of success (38%), but does well in that only 21% of the region is considered financially stressed.

The region of North and East Texas (districts 4, 5, and 8) is almost the reverse of District 1, with only 20% of its producers showing financial success and 40% being financially stressed. The remaining 40% represent financially stable producers.

The Coastal Bend and South Texas region (Districts 9, 11, and 12) are in the worst shape. At 55%, the proportion of stressed producers is the highest of all regions. Only 14% of the producers in the region show signs of financial success and the remaining 30% are considered stable.

Analysis by Producer Type

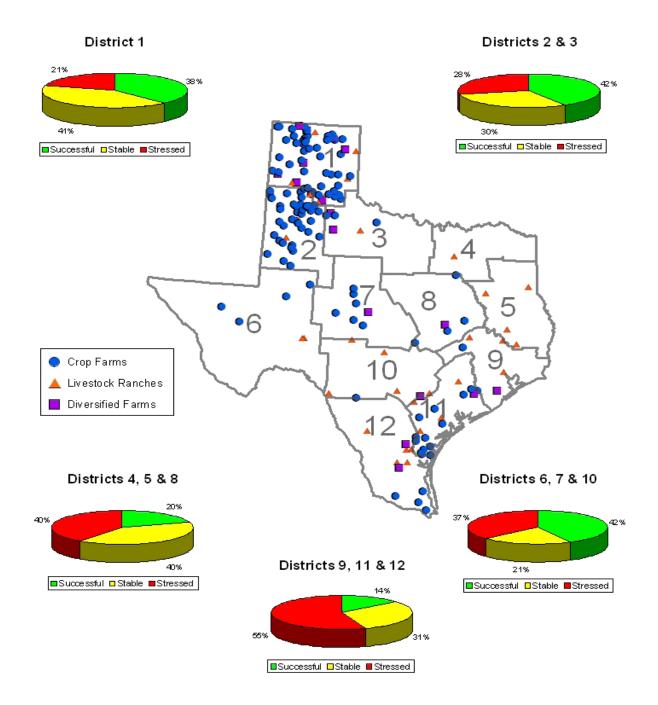
In the following section, we explore the differences that exist among agricultural operations of different types. We have defined three general types of producers: Crop Farms, Livestock Ranches, and Diversified Farms. Each of the 176 operations was categorized

Texas Agriculture 2009: The Road to Success

"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

as one of the three 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 176 operations participating, 125 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 41% of producers showing financially success, 33% financial stability and 26% financial stress. Diversified farms have a higher proportion of financially stressed producers (35%); most of the diversified producers are financially stable (41%) while only 24% show signs of financially success. Livestock ranches have a very high proportion of financially stressed producers (56%) and only 12% are financially successful producers.

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 176 operations was 20.63, the crop farms had a more favorable 23.99 average ProScore. The 17 diversified producers had a ProScore of 18.41. The 34 livestock ranches had the lowest average of all the participating farms and ranches, with an average ProScore of 9.38.

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 2,463 acres on average, which is approximately 182 acres greater than the overall average. Regardless of the fact that they have

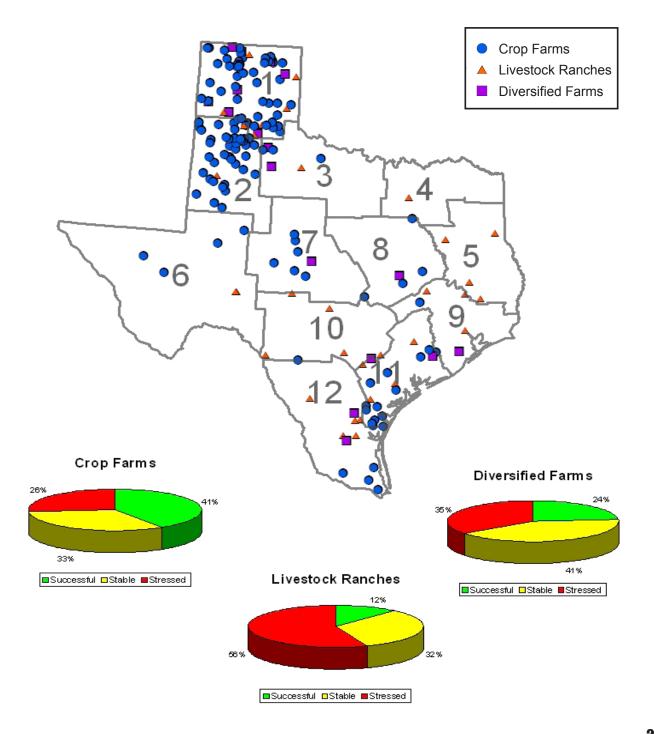
	All Farms & Ranches	Сгор	Diversified	Livestock
Number	176	125	17	34
ProScore Rating	20.63	23.99	18.41	9.38
2009 Total Receipts (\$1,000)	587.0	745.0	367.6	116.1
Total Acres	2282	2249	2161	2463
Total Cash Lease Acres	753	503	1153	1471
Share Acres	763	1012	204	41
Total Owned Acres	789	741	803	956
Corn Acres	195	271	23	0
Cotton Acres	338	474	0	6
Sorghum Acres	284	390	63	4
Wheat Acres	362	458	306	37
Improved Pasture Acres	57	24	288	65
Native Pasture Acres	623	188	762	2152
Cows (# head)	33	8	94	92
Stockers (# head)	14	9	63	6

Table 4. Average Production Characteristics by Producer Type.

"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

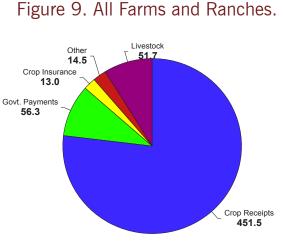
Figure 8. Comparison of FARM Assistance Participants' Success by Producer Type.

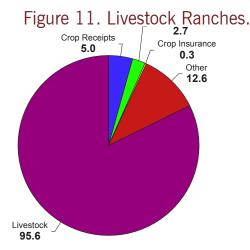




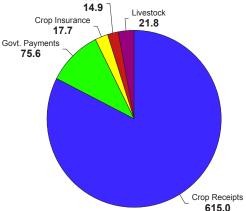
"FARM Assistance has been a valuable tool in evaluating the upcoming decisions I will need to make in the future to keep my farming operation viable." - John Gaulding, Jefferson County Producer

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





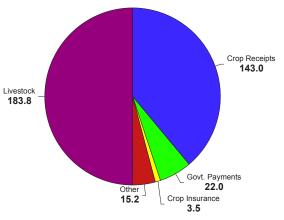
Crop Insurance 21.8 17.7



Othe

Figure 10. Crop Farms.

Figure 12. Diversified Operations.



more acreage, livestock ranches produced the lowest average of total receipts. The crop farms had the greatest average of total receipts with \$745,000; while diversified farms had \$367,600 and livestock farms had only \$116,100 in total receipts. Both the crop and diversified farms operated on roughly 2,200 total acres which is on par with the overall average.

At almost 60% of their total acreage, livestock ranches cash lease the most acres. The remaining balance of their land is owned with virtually no incidence of share lease arrangements. On the other hand, crop farmers utilize share agreements on 45% of their total acres, own 33% of their land, and only cash lease 22%. Diversified

farms also have a very high percentage of cash leased acres (53%), share lease only 9%, and own the remainder.

The mix of different crop and livestock enterprises mostly follows what you would expect from the three types of operations. The crop farms have the most crop acres and livestock ranches have the most

"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

	All Farms & Ranches	Сгор	Diversified	Livestock
Number	176	125	17	34
Real Estate Value Per Acre	439	298	813	769
Machinery Value Per Acre	182	201	175	114
Long Term Debt Per Acre	129	82	311	208
Intermediate Debt Per Acre	70	71	62	70
Debt To Assets %	38.4	36.7	45.6	40.9

Table 5. Average Asset and Debt Structure by Producer Type. have an average of \$769 per acre

native pasture acres. The crop farms have minimal livestock production; cotton, sorghum and wheat 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 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 125 crop producers, the average non-crop related revenues were approximately 5% of total receipts. The bulk of the average receipts are generated from

crop sales (83%), crop related government payments (10%), and crop insurance (2%). In contrast, the livestock producers received approximately 6% of their receipts from crop activities and another 11% from other non-livestock revenue sources. The diversified category generated slightly less revenue from crop related activities (46%) than from livestock production, which generated 50% 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 \$298 per productive acre. Livestock ranches own the highest proportion of their acres, and they have an average of \$769 per acre invested in land. The diversified farms have \$813 invested per acre. Investment in machinery is similar for the crop farms and diversified operations at between \$175 and \$200 per acre and is lowest for livestock ranches at \$114 per acre.

Crop operations have the lowest debt-to-asset ratio at 37%. Crop farms have a lower level of long term and similar level of intermediate debt per acre as compared to livestock ranches, but also hold much less in real estate assets per acre. Diversified farms have the highest debt-to-asset ratio of 46%, but have the lowest intermediate debt of \$62 per acre. They have the highest long-term debt per acre of the three groups with \$311 per productive acre, which is primarily attributed to their level of investment in real estate.

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,

Table 6. Average Financial Performance by Producer Type.

	All Farms	Crop	Diversified	Livestock
Number	176	125	17	34
Net Cash Farm Income per Acre	95.9	129.3	35.9	3.0
NCFI Standard Deviation	101.5	132.6	52.5	11.5
Expense to Receipts	0.65	0.63	0.65	0.76
Interest Expense to Receipts	0.09	0.06	0.15	0.19
Depreciation to Receipts	0.10	0.07	0.08	0.21
Family Living	33,421	36,760	27,719	20,879
Off Farm Income	14,977	13,847	18,798	17,221
Average Return on Assets %	10.4	12.1	9.0	4.7
Average Change in Real Net Worth %	12.5	12.2	15.4	12.2
Avg Prob Negative Working Capital %	25.3	21.5	25.3	39.2



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

- Kent Nix, Dawson County Producer

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 \$129 in NCFI per acre and had an average efficiency with a 0.63 expense-to-receipts ratio. The diversified ranches had a modest level of profitability with \$36 NCFI per acre with an expense -to-receipt ratio of 0.65. The livestock producers had the lowest level of profitability with \$3 NCFI per acre and the worst efficiency level at 0.76 expense-to-receipts ratio.

The debt load, in terms of the relative amount of earnings spent on interest expense was lowest for crop farms at \$0.06 per dollar of receipts, followed by diversified

farms with \$0.15 and \$0.19 for livestock farms. The relative depreciation expense however, indicated similar levels for crop and diversified farms, with \$0.07 and \$0.08 respectively. 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 \$0.21 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 almost \$37,000 for crop farms. The lowest family living expenses were found among the livestock producers, with less than \$21,000 per year. The diversified producers had the highest level of off-farm income of nearly \$19,000 per year, while the livestock producers had just over \$17,000, and crop producers generated just almost \$14,000.

The financial indicators that define the ProScore rating measure the relative profitability, equity growth, and liquidity risk of an individual's operation. It is not surprising that the livestock operations have the lowest rate of return on assets at 4.7%, as compared with 12% and 9% for crop and diversified farms, respectively. Livestock farms also have the highest chance of negative working capital (40%); crop farms only have a 21% chance of negative working capital. Livestock and crop operations have similar levels of real net worth growth (12%, respectively), while diversified farms show an average change in real net



Commodity Analysis

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.





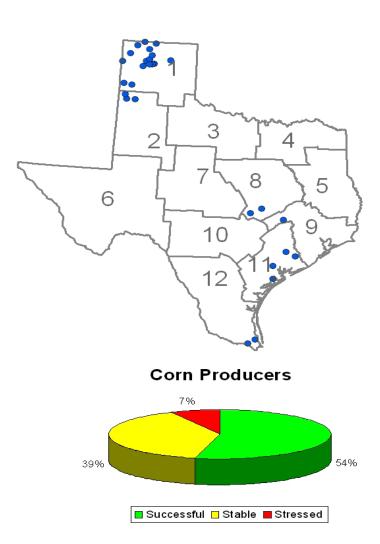
Commodity Analysis: Corn Production

igure 13 represents the 28 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. Fifty-four percent (54%) of the participants were listed as successful, 39% stable, and only 7% were considered financially stressed.

There are only seven FARM Assistance participants categorized as dryland corn producers. Due to the small number of participants in this group, and in order to preserve the confidentiality of the producers involved, data comparing yields and cost of production is not provided for individual success level groups. Figure 14 illustrates the average dryland yield of roughly 105 bushels and the average costs of production. The dryland corn producers faired well with an average 33.4 ProScore rating.

Figure 15 provides the anticipated yields and costs of production for the 23 FARM Assistance participants that produce irrigated corn. Of the 12 producers falling

Figure 13. Location and Success of Corn Participants.



into the financially successful category, the average ProScore rating was 49.4, with an average budgeted yield of 186.5 bu/acre, the highest of all three groups. The 10 participants in the stable group had a similar budgeted yield of 183 bu/ac, but the highest variable production costs of the group. The average ProScore of the stable group was 24.1, significantly lower than the average 36.7 ProScore for the entire group.

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

-- Patricia Devin, Swisher County Producer

Figure 14. Yield and Cost Comparisons for Dryland Corn.

104.56	

Yield Bushels/acre

	All	Successful	Stable	Stressed
Number of Producers	7	N/A	N/A	N/A
ProScore Rating	33.4			8.0
Yield (bu/acre)	99.37		95.28	100.00
Seed (\$/acre)	34.07		33.86	25.55
Fertilizer (\$/acre)	65.31		68.87	66.23
Herbicide (\$/acre)	16.95		20.32	20.92
Insecticide (\$/acre)	2.98		0.00	7.30
Irrigation Costs (\$/acre)	0.00		0.00	0.00
Harvest Costs / Yield Unit	0.25		0.00	0.39
Harvest Costs / Acre	4.61		0.00	0.00

Figure 15. Yield and Cost Comparisons for Irrigated Corn.

	180.53	186.53	183.09	
Mindal				
Yield				
Bushels/acre				
	All	Successful	Stable	Stressed
Number of Producers	23	12	10	N/A
ProScore Rating	36.7	49.4	24.1	
Yield (bu/acre)	180.53	186.53	183.09	
Seed (\$/acre)	53.47	55.08	52.37	
Fertilizer (\$/acre)	118.53	117.29	128.88	
Herbicide (\$/acre)	28.04	26.58	31.08	
Insecticide (\$/acre)	11.02	12.83	9.94	
Irrigation Costs (\$/acre)	155.73	155.12	167.83	
Harvest Costs / Yield Unit	0.11	0.10	0.12	
Harvest Costs / Acre	9.46	10.46	9.20	



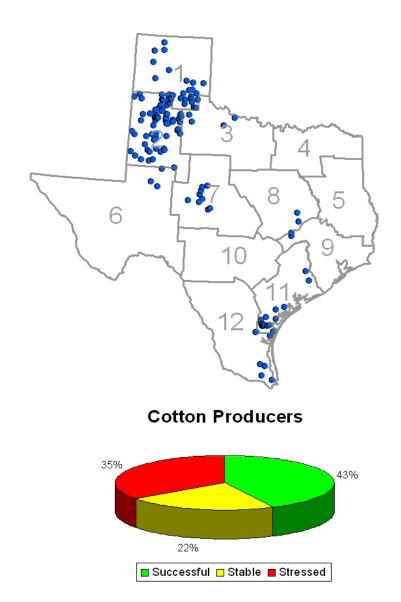
Commodity Analysis: Cotton Production

The map in Figure 16 shows the 77 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. Forty-three percent (43%) of the participants were listed as successful, 22% stable, and 35% were considered financially stressed.

Figure 17 provides a comparison of the 55 participants that produce dryland cotton. Of the 21 producers falling into the financially stressed category, the average ProScore rating was -13.9, with an average budgeted yield of 468.5 lbs per acre, the highest of all three groups. The stressed producers also had the highest total input costs. The successful group had the lowest per acre budgeted yield (371 lbs), but variable production costs were also lower than those of the stable or stressed producers. The average ProScore of the successful group was 47.7, significantly higher than the average 19.8 ProScore for all dryland cotton producers.

Figure 18 presents a comparison of 48 irrigated cotton producers. The financially successful producers

Figure 16. Location and Success of Cotton Participants.



had an above average yield per acre (974 lbs), and an extremely high ProScore rating of 50.9. Stressed producers had an average yield of 874 lbs, and an average ProScore of -14.1. The most interesting thing to note is that both the successful

and the stressed producers spent the same amount on input costs at approximately \$230/acre. "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

Figure 17. Yield and Cost Comparisons for Dryland Cotton.

	423.59		463.98	468.51	
		371.31			
Yield					
Pounds/acre					
	All	Successful	Stable	Stressed	
Number of Producers	55	25	9	21	
ProScore Rating	19.8	47.7	20.9	-13.9	

Number of Producers	55	25	9	21
ProScore Rating	19.8	47.7	20.9	-13.9
Yield (lbs/acre)	423.59	371.31	463.98	468.51
Seed (\$/acre)	30.77	28.05	28.12	35.14
Fertilizer (\$/acre)	21.28	14.55	20.73	29.53
Herbicide (\$/acre)	19.50	20.67	17.41	19.01
Insecticide (\$/acre)	7.16	5.01	9.44	8.75
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	4.54	4.38	4.12	4.91

Figure 18. Yield and Cost Comparisons for Irrigated Cotton.

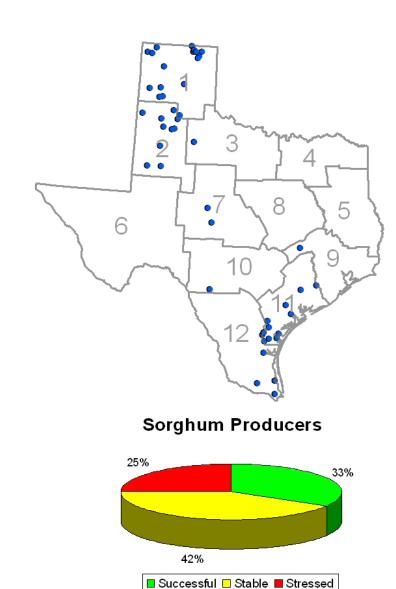
		070.76			
					873.76
Yield					
Pounds/acre					
		All	Successful	Stable	Stressed
Number of Producers	5	48	24	11	13
ProScore Rating		26.5	50.9	21.1	-14.1
Yield (lbs/acre)		932.31	974.35	909.78	873.76
Seed (\$/acre)		46.72	47.08	45.21	47.31
Fertilizer (\$/acre)		44.56	41.42	44.53	50.37
Herbicide (\$/acre)		35.26	41.69	20.99	35.49
Insecticide (\$/acre)		10.61	9.25	6.55	16.56
Irrigation Costs (\$/ac	re)	78.27	82.44	69.43	78.06
Harvest Costs / Yield	Unit	0.10	0.09	0.10	0.10
Harvest Costs / Acre		7.21	7.86	10.31	3.38

Commodity Analysis: Grain Sorghum Production

The map in Figure 19 shows the location of the 48 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 (42%), 33% successful, and 25% financially stressed.

Figure 20 presents the yield and cost comparisons for the 43 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 -20.4 ProScore and a yield per acre slightly higher than the overall average (59 bu/ac vs. 51 bu/ac).

There were only 16 participants that grow irrigated grain sorghum The average ProScore for all irrigated grain sorghum producers is 25.8 (Figure 21). The range of the average ProScore ratings is over 50 for the successful producers to -12.5 for the stressed producers. The successful producers have the highest projected yield and the highest input costs. The stable producers have the lowest yield per acre and the lowest input costs. As Figure 19. Location and Success of Grain Sorghum Participants.



was mentioned previously, one must be cautious not to read too much into the average numbers reported for such small groups. "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

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

		54.04		53.85	59.08
		51.31			
			42.31		
Yield					
Bushels/acre					
r		A 11	Oursesseful	Otabla	Otras a se al
		All	Successful	Stable	Stressed
Number of Producers	S	43	14	19	10
ProScore Rating		19.6	46.0	21.2	-20.4
Yield (bu/acre)		51.31	42.31	53.85	59.08
Seed (\$/acre)		8.43	7.30	7.83	11.14
Fertilizer (\$/acre)		26.08	19.44	22.96	41.30
Herbicide (\$/acre)		14.15	10.65	16.35	14.86
Insecticide (\$/acre)		2.16	2.71	1.32	3.00
Irrigation Costs (\$/ac	re)	0.00	0.00	0.00	0.00
Harvest Costs / Yield	l Unit	0.12	0.10	0.06	0.25
Harvest Costs / Acre		4.80	3.46	4.65	6.97

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

		90.37	100.89	80.07	84.81
Yield Bushels/acre					
		All	Successful	Stable	Stressed
Number of Producers	S	16	7	5	4
ProScore Rating		25.8	50.7	21.7	-12.5
Yield (bu/acre)		90.37	100.89	80.07	84.81
Seed (\$/acre)		8.44	7.45	7.00	11.99
Fertilizer (\$/acre)		39.21	42.57	29.00	46.08
Herbicide (\$/acre)		17.00	17.13	19.00	14.25
Insecticide (\$/acre)		2.28	3.57	0.30	2.50
Irrigation Costs (\$/ac	re)	66.04	78.86	61.20	49.65
Harvest Costs / Yield	l Unit	0.11	0.08	0.06	0.22
Harvest Costs / Acre		7.25	5.86	10.00	6.25

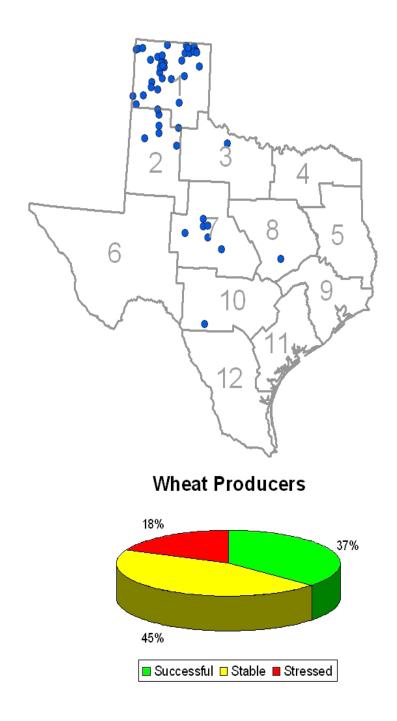
Commodity Analysis: Wheat Production

The map and pie chart in Figure 22 represents the 49 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. Successful producers comprise 37%, stable producers consist of 45%, and stressed producers represent 18%.

Figure 23 contains the yield and cost data for the 32 producers that grow dryland wheat. The average ProScore for the group is 29.8. The financially successful group has the lowest yield per acre at 22.14 and the lowest input costs per acre, but the highest ProScore rating of 53.8. The stressed producers have the highest yield and costs per acre and the lowest ProScore.

Yield and cost comparisons for 20 producers of irrigated wheat are found in Figure 24. The average ProScore for the group is 25.5. The successful producers have the highest ProScore (50.8) and highest average budgeted yield of 57.2 bu/ac was that of the financially stable group.

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

Figure 23. Yield and Cost Comparisons for Dryland Wheat.

		22.59 22.14 23.46		24.14	
, i			22.17		
Yield					
Bushels/acre					
	Ī	All	Successful	Stable	Stressed
Number of Producers		32	15	21	8
ProScore Rating		29.8	53.8	23.2	-8.8
Yield (bu/acre)		22.59	22.14	23.46	24.14
Seed (\$/acre)		4.34	4.49	6.73	8.20
Fertilizer (\$/acre)		6.73	7.82	8.81	13.81
Herbicide (\$/acre)		7.01	5.88	9.98	6.95
Insecticide (\$/acre)		0.67	0.87	0.60	1.32
Irrigation Costs (\$/acro	e)	0.00	0.00	0.00	0.00
Harvest Costs / Yield	Unit	0.04	0.00	0.03	0.21
Harvest Costs / Acre		9.72	7.33	8.57	10.08

Figure 24. Yield and Cost Comparisons for Irrigated Wheat.

	54.15	55	57.26	1
				49.6
Yield				
Bushels/acre				
	A II	Quesesset	Otabla	Otressed
	All	Successful	Stable	Stressed
Number of Producers	20	9	15	5
ProScore Rating	25.5	50.8	23.2	-10.3
Yield (bu/acre)	54.15	55.00	57.26	49.60
Seed (\$/acre)	7.09	10.56	11.46	12.86
Fertilizer (\$/acre)	27.98	44.56	41.13	35.00
Herbicide (\$/acre)	10.96	14.78	11.30	39.22
Insecticide (\$/acre)	1.12	1.22	1.97	1.28
Irrigation Costs (\$/acre)	61.58	84.44	74.47	54.80
Harvest Costs / Yield Unit	0.05	0.00	0.03	0.09
Harvest Costs / Acre	11.35	7.22	10.00	14.13



Commodity Analysis: Crop Production Comparison

It is also useful to look at what differences exist among crop producers. Recall that the average crop farming participant has an average of \$745,000 in total receipts. Corn is considered the highest valued crop, which is evident in the total receipts of the corn producers (Table 7). The 28 corn producers had average total receipts of \$1.6 million. Wheat came in second with an average of \$997,000 and sorghum ranked third with \$667,000. Cotton, which has not experienced the price increases that the grain commodities have, had the lowest average value of crop receipts with \$534,000. Cotton farms were 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 28 corn producers received 89% of their receipts from crop sales and collected another 6% from government payments and crop insurance indemnities. In contrast, wheat farms were the most diversified, earning 6% of their receipts from livestock sales (Figure 29). Government payments were the highest for the cotton producers at 17% and crop sales accounted for 76% of total receipts.

Given the differences, which group has the greatest projected financial success? Based on the FARM Assistance ProScore rating (Table 7), the 28 corn producers have the highest projected level of financial success. Among all crop farms, the average ProScore rating is 23.99, while corn producing participants have an average ProScore rating of 36.11. With a ProScore of 28.06, the wheat producing participants show favorable financial status as well. Cotton and sorghum producers both fall just below the average for all crop farms with respective ProScore ratings of 21.22 and 20.32, respectively.

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 corn or wheat tended to be significantly larger than the average. While the average crop farm is slightly larger than 2,200 acres, the average corn producer operates on almost 3,500 acres while wheat producers operate on almost 3,400 acres. Cotton producers tended to be the smallest producers both in terms of acreage and total receipts. Sorghum farms were similar to the average at 2,285 total acres.

Share renting is the most prominent land tenure arrangement for all crop farms, accounting for 45% of total acres for the average crop producer. Cash leases are least likely (22% of total acres), and the average crop farm owns 33% 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.

Table 7. Average Production Characteristics of Crop Farms.

	Crop	Corn	Cotton	Sorghum	Wheat
Number	125	28	77	48	49
ProScore Rating	23.99	36.11	21.22	20.32	28.06
2009 Total Receipts (\$1,000)	745.0	1607.1	533.9	666.8	996.9
Total Acres	2249	3466	1589	2285	3374
Total Cash Lease Acres	503	868	333	431	829
Share Acres	1012	1355	915	1146	1261
Total Owned Acres	741	1244	347	708	1293
Corn Acres	271	1110	89	128	428
Cotton Acres	474	248	730	451	247
Sorghum Acres	390	297	314	887	306
Wheat Acres	458	815	143	373	1194
Improved Pasture Acres	24	60	3	21	50
Native Pasture Acres	188	135	58	68	349
Cows (# head)	8	9	6	10	20
Stockers (# head)	9	16	5	11	25

"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.

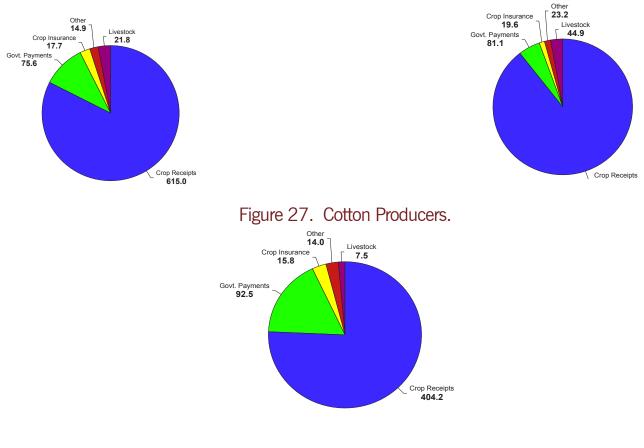


Figure 28. Grain Sorghum Producers.

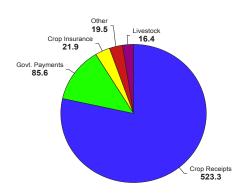
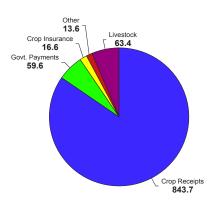


Figure 29. Wheat Producers.





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

- Edward Jungmann, Nueces County Producer

	Crop	Corn	Cotton	Sorghum	Wheat
Number	125	28	77	48	49
Real Estate Value Per Acre	298	458	229	364	270
Machinery Value Per Acre	201	216	210	208	188
Long Term Debt Per Acre	82	125	71	99	74
Intermediate Debt Per Acre	71	59	80	84	56
Debt To Assets %	36.7	24.1	43.6	33.1	32.3

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

The extent of cash lease agreements ranges from 19-25% depending on commodity specialization and is used mostly by corn and wheat producers. At 38% of their total land (almost 1,300 acres), wheat farms have the highest level of land ownership. Corn producers are second with approximately 36% land ownership, followed by 31% land ownership for grain sorghum producers and 21% 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, wheat farms tend to specialize more than corn, sorghum, or cotton producers. For the average wheat producer, actual wheat acres make up 34% of the total acres. Corn producers follow closely behind with 32% of total acres being planted to corn.

Table 8 contains the average debt structure and asset investment for the different crop farms. Recall from



"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

Table 7 that the wheat producers owned the largest percentage of their acreage. Even though they own almost 40% of their productive acres, the wheat group has a below average investment in real estate at \$270 per acre. The average investment in real estate per acre for all crop farms was \$298. Corn and grain sorghum both had higher overall levels of real estate investment per acre with \$458 and \$364, respectively. In terms of investment in machinery and equipment, corn producers have the most relative investment with \$216 per acre. followed closely by cotton and sorghum. The debt levels for the different types of crop farms contain striking differences. The average operation carries \$71 per acre in intermediate debt, which is usually used to secure machinery and equipment, as well as an average \$82 per acre in long term debt. Cotton and wheat producers have the lowest levels of long term debt per acre, while corn and wheat producers have the lowest levels of intermediate debt per acre. The overall debt level, measured relative to total assets, averages just under 37% for all crop farms. Cotton has the highest debt-to-asset ratio at 43.6% and corn the lowest with 24.1%.

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 \$202 per acre. Wheat and cotton production are the least profitable with \$111 in net cash income per acre. Variable operating 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 \$0.63 in cash expenses to generate one dollar in receipts, indicating 63% efficiency. At less than 60%, corn, grain sorghum and wheat producers are the most efficient while cotton producers are the least efficient at 68%. The interest expense-toreceipts ratio indicates the intensity of the expenses dedicated to debt service. Corn has the lowest interestto-expense ratio of 4%, while the remaining crops all operated at a ratio of 6%. While not a cash expense, depreciation is a drain on the farm's profit. The depreciationto-receipts ratio indicates the portion of total receipts necessary to cover depreciation expenses. The

depreciation-to-receipts ratios range from 4% for corn to 7% for wheat.

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 followed by wheat. Cotton and sorghum farms had slightly above average off-farm income. In terms of expenditures on family living which range from \$30,000 for wheat to \$39,000 for cotton and sorghum, there doesn't

Table 9. Average Financial Performance of Crop Farms.

	Crop	Corn	Cotton	Sorghum	Wheat
Number	125	28	77	48	49
Net Cash Farm Income per Acre	129.3	202.4	110.4	125.9	111.0
NCFI Standard Deviation	132.6	245.1	102.6	129.2	177.0
Crop Receipts Per Planted Acre	323.7	482.2	290.3	291.2	260.1
Expense to Receipts	0.63	0.58	0.68	0.58	0.57
Interest Expense to Receipts	0.06	0.04	0.06	0.06	0.06
Depreciation to Receipts	0.07	0.04	0.06	0.06	0.07
Family Living	36,760	32,611	39,299	39,912	30,619
Off Farm Income	13,847	6,092	16,997	15,342	9,167
Average Return on Assets %	12.1	17.8	10.6	12.2	15.0
Average Change in Real Net Worth %	12.2	15.5	11.5	10.1	12.9
Avg Prob Negative Working Capital %	21.5	5.0	28.0	18.3	16.3



"A must for anyone in the agriculture business." -- Candys Wiginton, Menard County Cow-Calf and Sheep Producer

appear to be a direct correlation that would allow one to conclude that family living expenses contribute to the varying levels of success for the commodity group.

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 \$3.20 per acre and \$262 per acre roughly 70% of the time. 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 21.5% 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 farms have an above average risk of negative working capital at 28%, while corn farms have the most stable cash and working capital position, only facing a 5% 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 12.1% for the average crop farm. With the exception of cotton farms, each group meets or exceeds



"This course has helped me in so many ways, I have been a manager for a farm for sixtyfive years. This course will be a great help to me. Thank You!" -- Mable Kirkpatrick, Lamb County Producer



the average 12.1% return on assets. Cotton farms, on average, fell just below at 10.6% 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 with 15.5% annually, followed by wheat farms (12.9%) and cotton farms (11.5%). In summary, financial stress and

success exist across all types of crop production. Although crop categories have some overlap of participants, tendencies suggest that with today's price outlook that groups with significant acres of corn and/ or wheat outperform groups with a large proportion of cotton 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.

