FACULTY PAPER SERIES

Grain Land Tenure
Evaluation Software
Users' Guide

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Lotus 1-2-3 release 5.0
Windows 3.1/Windows 95 Version

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Preface

This Users' Guide supports the use of the **GRNLEASE** Lotus 1-2-3 release 5.0 template on either conventional Windows 3.1 or Windows 95 microcomputer operating systems. This program was designed to support analysis of any of the grain crops that are included in the government program. A menu in the program allows the user to select the type of grain that is to be used in the analysis. The five types of grains that are included in the FAIR Act are: wheat, corn, grain sorghum, barley, and oats. Further explanation of how to change between alternative grain types is contained later in the Users' Guide. This program was developed in conjunction with a similar program for rice, RICELEAS; there is also a COTLEASE template for cotton, which is also subject to the FAIR Act of 1996. A paper entitled "Landowner/Tenant Issues in the Texas Rice Industry," Agricultural and Food Policy Center Policy Issues Paper 96-3, has been written to address some tenant landowner issues in the Texas Rice industry. Although that paper does not speak of grain or cotton, it provides useful information about the FAIR Act of 1996, and its effects on agriculture. Similar sets of software have also been developed to deal with the landlord tenant issue in the cotton and rice industries. Copies of the software, Users' Guide, and the noted paper may be obtained either through your local county agent, Larry Falconer at Corpus Christi (512/265-9203), or Joe Outlaw in College Station (409/845-3062).

The development of this software was funded by the Texas Agricultural Experiment Station (project H-3914), Texas Agricultural Extension Service, Texas Rice Research Foundation, and Rice Belt Warehouse, Inc**.**

Installation Instructions

The Grain Land Tenure Evaluation software is a Lotus template. This means that the program must be run using Lotus 1-2-3. This program is designed to run with either Windows 95 or Windows 3.1 or higher operating systems, and Lotus 1-2-3 release 5. A computer with 8mb of RAM and a 486 processor is also recommended, but not required. Since the program is a Lotus template, Lotus 1-2-3 r 5 must be running before you can load the program.
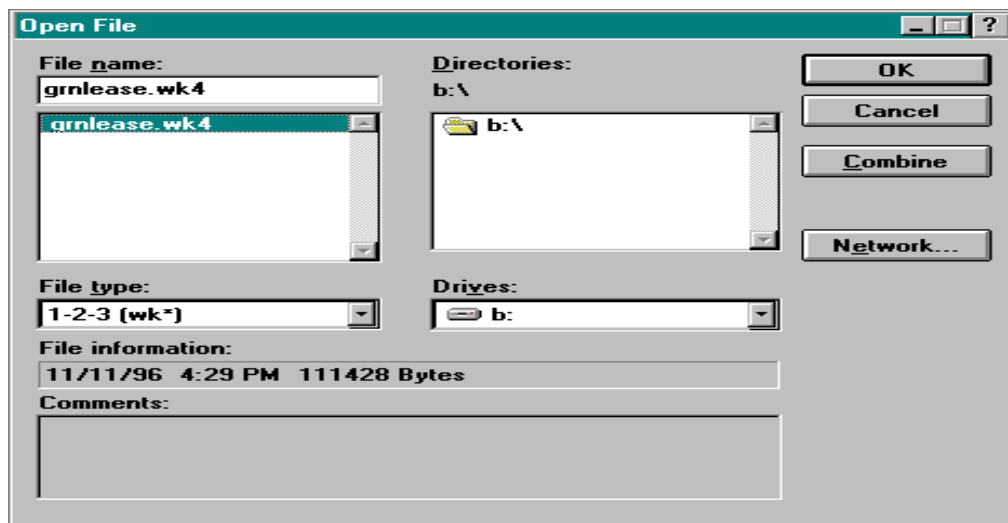
Once inside Lotus, you must open a file. At the top of the Lotus program you will notice a menu bar with several menu options on it. In the top left corner is the "File" menu item. To open a file, pull down the "File" menu and click the "Open" option. Upon selecting the open option, the Open File dialog box will appear, as shown on the previous page.

Under the "Drives" section, select the letter of the 3.5 inch drive on your computer. Then select the file entitled GRNLEASE.WK4 from the list of files appearing along the left side. Click the OK button, and Lotus 1-2-3 r 5 will bring up the Grain Land Tenure Evaluation program. You will note there are several sheets comprising this spreadsheet file; the customized menu features incorporated into the GRNLEASE.WK4 file facilitate moving from one area of the spreadsheet to another as necessary.

After the program has loaded up the first thing you should see is the opening screen below:

Grain Land Tenure Evaluation Worksheet

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Texas Agricultural Extension Service
Texas Agricultural Experiment Station
Texas A&M University System

Version 1.01   **January 24, 1997**

If you do not see the opening screen above, something is not working properly. Try and reload the file, going back through the steps outlined above. If problems persist, call Joe Outlaw in College Station (409/845-3062).

Overview

What the Grain Land Tenure Evaluation Program is designed to do: This Lotus template takes enterprise budget information for grain farm operations and evaluates the expected returns to producers and landowners under various lease scenarios. The landowners' results from renting their land for grain farming are compared with their receiving 100% of the returns from market transition payments plus the user-specified net returns from an alternative enterprise, thus calculating the net advantage to landowners for renting their land for grain production under the budgeted scenario over the life of the FAIR Act.

The Grain Land Tenure Evaluation Program allows the user to evaluate any desired share arrangement, but for ease of use, it contains ten default lease share options that the user may select from, and then modify if desired.

The user can print any one of six programmed reports by using the Print option on the menu. These reports include: 1) the base data on program yields, expected prices, and market transition payments; 2) land tenure arrangements (landowners' percentage of different cost items being shared); 3) enterprise budget information; 4) sensitivity table analyses for both the tenant and landowner for the current operating period; 5) sensitivity table analyses for the tenant over the life of the FAIR Act; and 6) sensitivity table analyses for the landowner over the life of the FAIR Act. The user may also print all six reports at once. An example of each of these reports appears toward the end of this Users' Guide.

Limitations: This program was designed with a very specific purpose in mind, that being to identify expected returns to landowners for two basic alternatives: (a) continuing to engage their land in grain production, considering alternative tenure arrangements, expected production costs, and ranges of expected yields, and prices; and (b) ceasing use of their land in grain production, and engaging it instead in an alternative use, whereby they realize 100% of the market transition payments and the user-specified net returns for the alternative enterprise. Therefore, it is limited in its analytical capabilities. The Grain Land Tenure Evaluation **is not** designed to:

- ► Be prescriptive, i.e, indicate what one should do -- it simply evaluates alternatives based on user-supplied data.

- ► Evaluate leasing options for alternative enterprises -- this program only evaluates grain leases.

- ► Account fully for risk management -- it does not incorporate users' subjective probabilities for expected yields and prices, the option of crop insurance, or the effects of marketing contracts, among other possible considerations.

- ► Allow for direct, side-by-side comparisons of tenure arrangements for the grain enterprise as well as for other cropping alternatives.

A more comprehensive software program designed to address the above stated issues will be available during the Summer of 1997.

Please Note:

The user may enter data in the cells that appear in <u>blue</u> text; <u>blue</u> text is "unprotected," allowing for users to change it, replacing it with their own values. All other cells are programmed as formulas, and should not be changed by the user. Doing so will corrupt the integrity of the program and result in the output being inaccurate. To protect against such accidental changes of formula cells, users are encouraged to maintain one or more original versions of the program in a secure location. **Note: in this Users' Guide, the unprotected cells appear in a light shade of grey.**

Moving around the program : To move from one section to the next, simply access the pull-down menus located at the top of the screen. Inside the "move to" pull-down menu is a list of all the places that you can go to inside the program. To move around within any of the data entry or analysis sections, use the mouse in conjunction with the horizontal and vertical scroll bars at the right hand side and bottom of the display. The arrow keys may also be used to move within a page.

Required Data

The data required to generate results are entered into the (a) Base Data, (b) Land Tenure, and (c) Budget sections. These data include:

Base Data Section:

Analysis Description: This label is the information that will be printed in the heading of all the pre-programmed reports. It provides the user with the capability of labeling different analyses.

Farm Payment Yield: The established yield for a particular Farm Service Agency (FSA) farm unit; this yield is used by the FSA for determination of market transition payments. Be sure to adjust this figure to the appropriate level for the farm unit being analyzed.

Grain Yield: Expected grain yield (bu/ac, or cwt/ac) for the farm unit being evaluated.

Grain Price: Expected harvest time price ($/bu, or $/cwt) for grain crop during the budgeted period.

+/- Increments for What If: The price and yield increments in $/cwt, or $/bu and cwt/ac, or bu/ac that are used to define alternative price and yield levels for the tenant and landowner sensitivity analysis tables. This program calculates returns under various yield and price scenarios. The yield and price specified, along with the +/- increments, define the different yield and price levels used to calculate the returns. The sensitivity calculations are presented both for +/- one and +/- two increments about the specified yield and price levels, i.e., a total of twenty-five different yield and price combinations are evaluated.

Alternative Return: These values represent net cash flows from the next best alternative enterprise that will accrue to the landowner if the land is not rented to a tenant for grain production. These values are used to calculate the net advantage to the landowner for allowing the land to remain in grain production, and be farmed by a tenant producer.

Annual discount rate: This value is used in net present value calculations to adjust the tenant's and landowners' cash flows to evaluate the net returns per acre over the 1997-2002 period. A desired rate of return for the land in the analysis could be used (e.g., 5-7%) or, alternatively, users may choose to use their opportunity cost of capital for borrowed funds (e.g., 7-12%). Returns for the 1996 crop year are not included in the net present value calculations since this crop year is in the past, and as such, does not affect future decisions. Note: once the 1997 crop year has occurred, 1997 consequences should be excluded from the NPV calculations; call Joe Outlaw (409/845-3062) or Ed Rister (409/845-3801) for information on how to make these revisions.

Land Tenure Section:

Analyze : This column of values is the current tenure arrangement being evaluated. These data may be selected from a set of default options from the menu bar using the Analyze menu. The user has the option of customizing these scenarios by entering alternative values, or he/she may enter an entirely new alternative directly into the worksheet. The user may also alter the percentages that are shown in the ten customized tenure arrangements, even though the text is black. These cells are not formulas and changing them will not affect the operation of the program. Any tenure specific allocation changes that the user wishes to keep for subsequent analytical sessions need to be saved prior to exiting the program. Then, the next time the program is opened, the customized tenure arrangements will be available, including any saved changes; be advised, however, that the original tenure arrangements that were altered will no longer be available for that lease, users are advised to keep an original version of this template in a secure location.

Enterprise Budget Section:

The following three data items are required to determine the wet weight of grain being handled and dried so that accurate costs can be calculated. The grain yield data is to be entered in dry weight terms.

Harvest Moisture Percentage: The amount of grain moisture when harvested, e.g., 16-18%.

Dry Moisture Percentage: The base moisture percentage for the grain to be marketed, or a target moisture level for dry grain, e.g., 14% for milo, 15.5% for corn.

Handling Shrink: Percentage reduction occurring as yields are transformed to dry yields, due primarily to handling losses, e.g., 0-1%.

Variable Production Input Levels and Costs: All of the data entry regarding costs and inputs are done in the Enterprise Budget Section. These data are mainly usage rates of variable inputs with corresponding costs. Fixed costs may be entered on a per acre basis near the bottom of the enterprise budget (while these fixed costs will appear in the printed enterprise budget report, they are not considered in other aspects of the analysis (e.g., the sensitivity tables) as the fixed costs are considered irrelevant to the "grow grain" vs "pursue an alternative enterprise" decision -- that is, the fixed costs will occur regardless of the enterprises grown on the land). The areas that require data entry are colored with blue text, to symbolize a data entry cell. **Do not enter data** in cells that do not have blue text -- this will cause a formula to be erased, and the program to function improperly (refer to the Please Note item at the top of p. 4).

Menu Options

File menu:

The **File** Menu can be accessed by clicking on the File section of the menu. The File Menu contains options for opening, closing, and saving files.

Open : the **Open** command allows the user to open a new file inside the Lotus program. If you open a new file, you will be leaving the Grain Land Tenure Evaluation program and opening another Lotus spreadsheet file.

Close : the **Close** command allows the user to close a file inside the Lotus program. If you choose the **Close** option, then you will be closing the Grain Land Tenure Evaluation program. It is recommended that the user save the current file by using the **Save As** option and entering an analysis-specific file name before closing.

Save As? : the **Save As?** command allows the user to save the current file. You may save the file under the current name, or change the name of the file and preserve the data under a analysis-specific file name. It is recommended to periodically save the file as you progress through the worksheet. This helps to prevent data loss due to an accidental data entry, or unforeseen program shutdown by the computer system.

Exit : the **Exit** command allows the user to exit the Grain Land Tenure Evaluation program and the Lotus 1-2-3 program. It is recommended the the user save the data as discussed above before exiting.

Print menu:

The **Print** menu is a customized menu that allows the user to print a variety of reports. The option exists to print either one report at a time, all reports at once, or a user-specified combination of the six reports. The user can access the print menu by clicking the Print option on the customized main menu bar. After clicking on the Print menu, the user is presented with the Print dialog box shown on the following page.

Inside the dialog box, the user can select any combination of six pre-defined reports, and a cover page. To select the items to be printed, click on the box next to the title of the report(s) to be printed and click OK. Be sure your printer is on and loaded with paper before executing this print command.
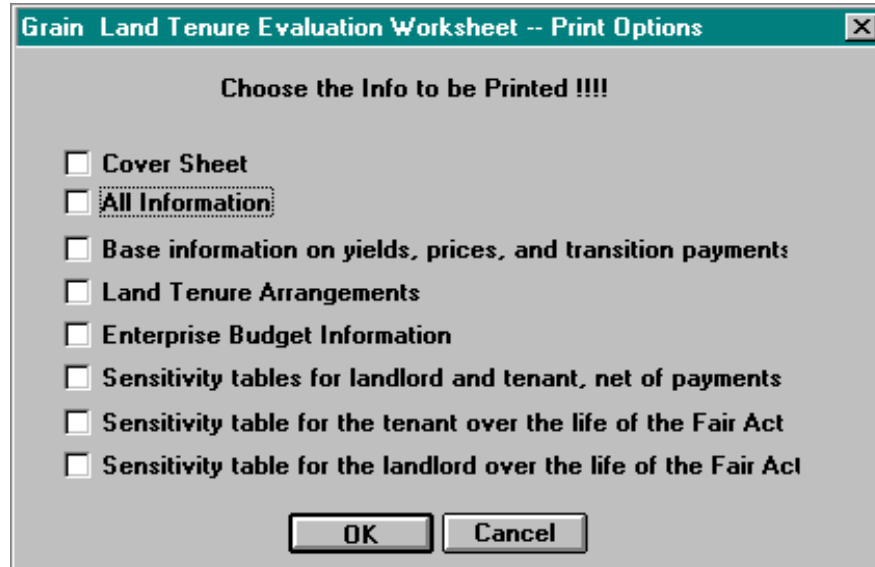
The available reports include:

Base Information on Yields, Prices, and Transition Payments: this report contains the base information on FSA program yield, expected yields, expected price, annual $/ac cash flows for an alternative enterprise over the remaining life of the FAIR Act, and the discount rate used in the analysis for net present value calculations.

Land Tenure Arrangements: the specific land tenure arrangement (percentage of crop returns and different cost items being shared) that is being analyzed for the particular scenario, along with the rest of the available alternatives.

Enterprise Budget Information: the enterprise budget information that represents the cost structure for the specific grain production scenario that is being analyzed.

Sensitivity table for landowner and tenant, net of payments: the sensitivity table analyses for both the tenant and landowner for only the current operating period, net of (ignoring) any transition payments.

Sensitivity table for tenant over the life of the FAIR Act: the sensitivity table analyses for the tenant over the life of the FAIR Act (1996 -2002), including tenant's designated share of transition payments. Positive values indicate returns exceed all variable costs while negative values indicate the opposite.

Sensitivity table for the landowner over the life of the FAIR Act: the left side represents the sensitivity table analyses for the landowner continuing to rent his/her land to a tenant producer for grain farming over the life of the FAIR Act (1996-2002), including landowners' designated

share of transition payments. Positive values indicate landowners' share of returns exceed landowners' share of variable costs while negative values indicate the opposite. The middle column of values represents the respective annual net returns realized by landowners who discontinue their grain lease and engage their land in its next best use, while also receiving 100% of the market transition payments. The right side of this output represents the net advantage to the landowner for continuing use of his/her land in grain production <u>compared</u> to using it in the specified next best use and receiving 100% of the market transition payments. A positive value indicates returns are highest if grain production is continued with a tenant while a negative value signals the landowners' pursuit of the next best alternative accompanied by their receipt of 100% of the market transition payments is more profitable.

The user may also print all six reports at once by selecting the **All Information** option from the dialog box.

Analyze menu:

The **Analyze** menu allows the user to select any of ten pre-defined land tenure arrangements. A user can select the option they would like to analyze by clicking on the desired selection with the mouse, or by using the arrow and enter keys. The program then over-writes the contents of the Analyze column in the Budget page, and immediately updates all calculations to reflect the desired tenure arrangement. **If the user changes any component of the tenure or budget data, the REFRESH menu item needs to be executed as described below before the results are valid.**

Move To menu:

The **Move To** menu allows the user to move around throughout the worksheet. By selecting one of the seven options, the user can move to the sections specified by that option.

Misc. menu:

The **Misc.** menu allows you to either (a) switch to the Lotus 1-2-3 menu or (b) refresh the data and calculations inside the worksheet.

Reset to 1-2-3 menu: this command allows the user to toggle to the standard Lotus 1-2-3 menu system. If you do toggle to the standard menu, after completing the intended Lotus tasks, you may then return to the Grain Land Tenure Evaluation program's customized menus by selecting the **Menu** option that has been added on the far right side of the standard Lotus 1-2-3 menu bar.

IMPORTANT

Refresh: allows a user who has changed data within the land tenure section or the enterprise budget section to recalculate the sensitivity tables using the new data values. For example, if you select the 1/4a share arrangement from the Analyze menu, then the program automatically computes the sensitivity tables using that data. However, if you go to the land tenure section and adjust the percentages after having selected a tenure alternative, the program will not automatically update the tables. Similarly, if you make an adjustment in the Enterprise Budget section or elsewhere, such changes <u>are not</u> automatically reflected in the results sections. The user must move to the Misc menu and choose the Refresh option. The program then takes the data that has just been changed and re-calculates the sensitivity tables.

Crops menu:

The **Crops** menu allows the user to select the type of grain to be analyzed. The types of grains that are available for analysis are: wheat, grain sorghum, corn, barley, and oats. To choose one of the five types of grains, simply click on the Crops menu. A dialog box will appear asking you to select the grain to be analyzed. The program then applies the data from the type of grain that was chosen to the worksheet, and allows you to continue with the analysis. In order for the data in the current worksheet to be kept, it must be saved prior to selecting another crop from the Crops menu. This can be done by selecting the Save As option under the File menu, as described above. When a different crop is selected for analysis, the current data in the worksheet is immediately replaced with data for the new grain type.

Help Menu: The **Help** menu allows you to access the Lotus 1-2-3 help screens.

Reports

Each of the following six pages is an example presentation of the six respective reports that may be generated using this program. The values used in this example are for a case farm situation in District 11, identified in December of 1996.

Grain Land Tenure Evaluation Worksheet
Ed Rister, Joe Outlaw, Ed Smith, Larry Falconer, & Brandon Benton
January 24, 1997

Base Assumptions   Corn

Analysis Description   Texas Coastal Bend (District 11)

Farm Payment Yield	bu/ac	70.00
% of acres paid on	%	85.00%
Grain Yield	bu/ac	70.00
+/- yield increments	bu	5.00
Grain Price	$/bu	$3.08
+/- price increment	$/bu	$0.15

		Annual Payment Rates		Alternative return
1996	$/bu	$0.2508	$/ac	($12.00)
1997	$/bu	$0.4807	$/ac	($12.00)
1998	$/bu	$0.3762	$/ac	($12.00)
1999	$/bu	$0.3657	$/ac	($12.00)
2000	$/but	$0.3344	$/ac	($12.00)
2001	$/bu	$0.2717	$/ac	($12.00)
2002	$/bu	$0.2612	$/ac	($12.00)

Annual discount rate   %   10.00%

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Land Tenure Arrangements

Landowner's Share of Crop and Expenses for Alternative Tenure Arrangements

Corn

	Analyze	1/3a #1	1/3b #2	1/4a #3	1/4b #4	30%a #5	30%b #6	C25 #7	C35 #8	C50 #9	C0 #10
REVENUES											
Grain Sales	33.33%	33.33%	33.33%	25.00%	25.00%	30.00%	30.00%	0.00%	0.00%	0.00%	0.00%
OTHER	33.33%	33.33%	33.33%	25.00%	25.00%	30.00%	30.00%	0.00%	0.00%	0.00%	0.00%
CASH RENT	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%	0.00%	$25.00	$35.00	$50.00	$0.00
OTHER	33.33%	33.33%	33.33%	25.00%	25.00%	30.00%	30.00%	0.00%	0.00%	0.00%	0.00%
OTHER	33.33%	33.33%	33.33%	25.00%	25.00%	30.00%	30.00%	0.00%	0.00%	0.00%	0.00%
GROSS RECEIPTS											
================											
VARIABLE COSTS											
SEED	33.33%	33.33%	0.00%	25.00%	0.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%
HERBICIDE	33.33%	33.33%	0.00%	25.00%	0.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%
INSECTICIDES	33.33%	33.33%	0.00%	25.00%	0.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%
FERTILIZER	33.33%	33.33%	0.00%	25.00%	0.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%
LABOR	$0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
FUEL	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
REPAIRS	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
APPLICATIONS-AERIAL	0.00%	0.00%	0.00%	0.00%	$0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
APPLICATIONS-GROUND	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
IRRIGATION	$0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
HARVESTING (wet weight)	33.33%	33.33%	0.00%	25.00%	0.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%
HAULING (Wet weight)	33.33%	33.33%	0.00%	25.00%	0.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%
DRYING	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
OTHER	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
OTHER	$0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
INTEREST (weighted int rate)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
================											
FIXED COSTS											
DEPRECIATION	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
INSURANCE	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
REPAIRS	$0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TAXES (property)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
INTEREST ON CAPITAL INVESTMENT	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
OTHER FC	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
OTHER FC	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Share of Transition Payment	33.33%	33.33%	33.33%	25.00%	25.00%	30.00%	30.00%	0.00%	0.00%	0.00%	0.00%
Tenure Arrangement Label	1/3a	1/3a	1/3b	1/4a	1/4b	30%a	30%b	C25	C35	C50	C0

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			Harvest Moisture	16.00%		
			Dry Moisture	14.00%		
			Handling shrink	0.50%		

GRAIN PRODUCTION ENTERPRISE BUDGET			Texas Coastal Bend (District 11)			**Corn**
WET/DRY WEIGHT INDEX	1.0179					
**						**********
	UNITS/AC	$/UNIT	Owner/Operator $/AC	Tenant $/AC	Landowner $/AC	LAND RENTAL TERMS 1/3a
REVENUES						
Grain Sales	70.0	$3.08	$215.60	$143.73	$71.87	33.33%
OTHER	0.0	0.00	0.00	0.00	$0.00	33.33%
CASH RENT($/ac)			0.00	0.00	0.00	$0.00
OTHER	0.00	0.00	0.00	0.00	0.00	33.33%
OTHER	0.00	0.00	0.00	0.00	0.00	33.33%
GROSS RECEIPTS			$215.60	$143.73	$71.87	n/a
VARIABLE COSTS						
SEED	1	20.00	20.00	13.33	6.67	33.33%
HERBICIDE	1	3.43	3.43	2.29	1.14	33.33%
INSECTICIDES	1	11.87	11.87	7.91	3.96	33.33%
FERTILIZER	1	26.40	26.40	17.60	8.80	33.33%
LABOR	1	12.59	12.59	12.59	0.00	0.00%
FUEL	1	10.57	10.57	10.57	0.00	0.00%
REPAIRS	1	3.39	3.39	3.39	0.00	0.00%
APPLICATIONS -- AERIAL	1	0.00	0.00	0.00	0.00	0.00%
APPLICATIONS -- GROUND	1	0.00	0.00	0.00	0.00	0.00%
IRRIGATION	1	0.00	0.00	0.00	0.00	0.00%
HARVESTING (wet weight)	39.90	0.70	27.93	18.62	9.31	33.33%
HAULING (wet weight)	39.90	0.00	0.00	0.00	0.00	33.33%
DRYING (wet weight)	39.90	0.00	0.00	0.00	0.00	0.00%
OTHER	0	0.00	0.00	0.00	0.00	0.00%
OTHER	1	0.00	0.00	0.00	0.00	0.00%
INTEREST (weighted int rate)	116.18	0.0461	5.36	5.36	0.00	0.00%
Variable Costs sub-total			$121.54	$91.66	$29.88	n/a
Returns Above Variable Costs			94.06	52.07	41.99	
FIXED COSTS						
DEPRECIATION	1	42.16	$42.16	42.16	0.00	0.00%
INSURANCE	1	0.00	$0.00	0.00	0.00	0.00%
REPAIRS	1	0.00	$0.00	0.00	0.00	0.00%
TAXES (property)	1	0.00	$0.00	0.00	0.00	0.00%
INTEREST ON CAPITAL INVESTMENT	1	0.00	$0.00	0.00	0.00	0.00%
OTHER FC	1	0.00	$0.00	0.00	0.00	0.00%
OTHER FC	1	0.00	$0.00	0.00	0.00	0.00%
Fixed Costs sub-total			$42.16	42.16	0.00	
TOTAL COSTS/ACRE			$163.70	$133.82	$29.88	
TOTAL NET/ACRE --Return to Land and Profit			$51.90	$9.91	$41.99	
Break-even Price, All Production Costs le	$/bu		$2.339	$1.912	$0.427	
Break-even Price, All Production Costs	$/bu		$2.339	$1.912	$0.427	
Break-even Price, Variable Costs	$/bu		$1.736	$1.309	$0.427	
Break-even Price, Fixed Costs	$/bu		$0.602	$0.602	$0.000	

Texas Coastal Bend (District 11)   Corn

Net of Transition Payments
What If Table for Tenant (Returns Above Variable Costs)

	Price	$/bu		1/3a	
+TENRAVC	$2.78	$2.93	$3.08	$3.23	$3.38
Yield 60.00	22.38	28.38	34.38	40.38	46.38
bu/ac 65.00	30.23	36.73	43.23	49.73	56.23
70.00	38.07	45.07	52.07	59.07	66.07
75.00	45.92	53.42	60.92	68.42	75.92
80.00	53.76	61.76	69.76	77.76	85.76

What If Table for Landowner (Returns Above Variable Costs)

	Price	$/bu		1/3a	
+LANDRAV	$2.78	$2.93	$3.08	$3.23	$3.38
Yield 60.00	27.05	30.05	33.05	36.05	39.05
bu/ac 65.00	31.02	34.27	37.52	40.77	44.02
70.00	34.99	38.49	41.99	45.49	48.99
75.00	38.96	42.71	46.46	50.21	53.96
80.00	42.93	46.93	50.93	54.93	58.93

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Annual and NPV of Returns Table for Tenant (RAVC)
Texas Coastal Bend (District 11)   Corn

Base w/o transition payments

Yield bu/ac	Price	$/bu			1/3a	
		$2.78	$2.93	$3.08	$3.23	$3.38
+TENRAVC						
60.00		22.38	28.38	34.38	40.38	46.38
65.00		30.23	36.73	43.23	49.73	56.23
70.00		38.07	45.07	52.07	59.07	66.07
75.00		45.92	53.42	60.92	68.42	75.92
80.00		53.76	61.76	69.76	77.76	85.76

Annual, considering transition payments

	$2.78	$2.93	$3.08	$3.23	$3.38
1996					
60.00	32	38	44	50	56
65.00	40	47	53	60	66
70.00	48	55	62	69	76
75.00	56	63	71	78	86
80.00	64	72	80	88	96
1997					
60.00	41	47	53	59	65
65.00	49	56	62	69	75
70.00	57	64	71	78	85
75.00	65	72	80	87	95
80.00	73	81	89	97	105
1998					
60.00	37	43	49	55	61
65.00	45	52	58	65	71
70.00	53	60	67	74	81
75.00	61	68	76	83	91
80.00	69	77	85	93	101
1999					
60.00	37	43	49	55	61
65.00	45	51	58	64	71
70.00	53	60	67	74	81
75.00	60	68	75	83	90
80.00	68	76	84	92	100
2000					
60.00	36	42	48	54	60
65.00	43	50	56	63	69
70.00	51	58	65	72	79
75.00	59	67	74	82	89
80.00	67	75	83	91	99
2001					
60.00	33	39	45	51	57
65.00	41	48	54	61	67
70.00	49	56	63	70	77
75.00	57	64	72	79	87
80.00	65	73	81	89	97
2002					
60.00	33	39	45	51	57
65.00	41	47	54	60	67
70.00	48	55	62	69	76
75.00	56	64	71	79	86
80.00	64	72	80	88	96
NPV*					
60.00	160	186	212	238	264
65.00	194	222	250	279	307
70.00	228	258	289	319	350
75.00	262	295	327	360	393
80.00	296	331	366	401	436

*NPV is for 1997-2002, discounted into 1997 $s.

Annual and NPV of Returns Table for Landowner (RAVC)
Texas Coastal Bend (District 11)

Corn

	Grain is grown		No Grain	Advantage to growing Grain	
	Base w/o transition payments			Base w/o transition payments	

Base w/o transition payments

Grain is grown

Yield bu/ac	Price	\$/bu			1/3a	No Grain
+LANDRAV	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38	
60.00	27.05	30.05	33.05	36.05	39.05	
65.00	31.02	34.27	37.52	40.77	44.02	(\$12.00)
70.00	34.99	38.49	41.99	45.49	48.99	
75.00	38.96	42.71	46.46	50.21	53.96	
80.00	42.93	46.93	50.93	54.93	58.93	

Advantage to growing Grain

Yield bu/ac	Price	\$/bu			1/3a
+LANDRAV	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38
60.00	39.05	42.05	45.05	48.05	51.05
65.00	43.02	46.27	49.52	52.77	56.02
70.00	46.99	50.49	53.99	57.49	60.99
75.00	50.96	54.71	58.46	62.21	65.96
80.00	54.93	58.93	62.93	66.93	70.93

Annual, considering transition payments

Grain is grown

1996	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38	No Grain
60.00	32	35	38	41	44	
65.00	36	39	42	46	49	
70.00	40	43	47	50	54	\$2.92
75.00	44	48	51	55	59	
80.00	48	52	56	60	64	
1997	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38	
60.00	37	40	43	46	49	
65.00	41	44	47	50	54	
70.00	45	48	52	55	59	\$16.60
75.00	48	52	56	60	63	
80.00	52	56	60	64	68	
1998	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38	
60.00	35	38	41	44	47	
65.00	38	42	45	48	51	
70.00	42	46	49	53	56	\$10.38
75.00	46	50	54	58	61	
80.00	50	54	58	62	66	
1999	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38	
60.00	34	37	40	43	46	
65.00	38	42	45	48	51	
70.00	42	46	49	53	56	\$9.76
75.00	46	50	54	57	61	
80.00	50	54	58	62	66	
2000	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38	
60.00	34	37	40	43	46	
65.00	38	41	44	47	51	
70.00	42	45	49	52	56	\$7.90
75.00	46	49	53	57	61	
80.00	50	54	58	62	66	
2001	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38	
60.00	32	35	38	41	44	
65.00	36	40	43	46	49	
70.00	40	44	47	51	54	\$4.17
75.00	44	48	52	56	59	
80.00	48	52	56	60	64	
2002	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38	
60.00	32	35	38	41	44	
65.00	36	39	43	46	49	
70.00	40	44	47	51	54	\$3.54
75.00	44	48	52	55	59	
80.00	48	52	56	60	64	
NPV*	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38	
60.00	149	162	175	188	201	
65.00	166	180	194	209	223	
70.00	183	199	214	229	244	\$40.99
75.00	201	217	233	250	266	
80.00	218	235	253	270	288	

*NPV is for 1997-2002, discounted into 1997 \$s.

Advantage to growing Grain

1996	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38
60.00	29	32	35	38	41
65.00	33	36	40	43	46
70.00	37	41	44	48	51
75.00	41	45	49	52	56
80.00	45	49	53	57	61
1997	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38
60.00	20	23	26	29	32
65.00	24	27	30	34	37
70.00	28	31	35	38	42
75.00	32	36	39	43	47
80.00	36	40	44	48	52
1998	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38
60.00	24	27	30	33	36
65.00	28	31	35	38	41
70.00	32	36	39	43	46
75.00	36	40	44	47	51
80.00	40	44	48	52	56
1999	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38
60.00	25	28	31	34	37
65.00	29	32	35	38	42
70.00	32	36	39	43	46
75.00	36	40	44	48	51
80.00	40	44	48	52	56
2000	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38
60.00	26	29	32	35	38
65.00	30	33	36	40	43
70.00	34	37	41	44	48
75.00	38	41	45	49	53
80.00	42	46	50	54	58
2001	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38
60.00	28	31	34	37	40
65.00	32	35	39	42	45
70.00	36	40	43	47	50
75.00	40	44	48	51	55
80.00	44	48	52	56	60
2002	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38
60.00	29	32	35	38	41
65.00	33	36	39	42	46
70.00	37	40	44	47	51
75.00	41	44	48	52	56
80.00	45	49	53	57	61
NPV*	\$2.78	\$2.93	\$3.08	\$3.23	\$3.38
60.00	108	121	134	147	160
65.00	125	139	154	168	182
70.00	142	158	173	188	203
75.00	160	176	192	209	225
80.00	177	194	212	229	247

*NPV is for 1997-2002, discounted into 1997 \$s

Landowner takes all payment and alternative returns for 1997-2002.

	Payment	Altern	Total
1996	14.92	-12.00	2.92
1997	28.60	-12.00	16.60
1998	22.38	-12.00	10.38
1999	21.76	-12.00	9.76
2000	19.90	-12.00	7.90
2001	16.17	-12.00	4.17
2002	15.54	-12.00	3.54
NPV97-02	93.25	-52.26	40.99