# Cotton Loan Valuation Program Developed by:

Larry Falconer, Texas Cooperative Extension and Dr. Jeanne Reeves, Cotton, Incorporated Sponsored by: Cotton, Incorporated–Dr. Jeanne Reeves, Project Supervisor

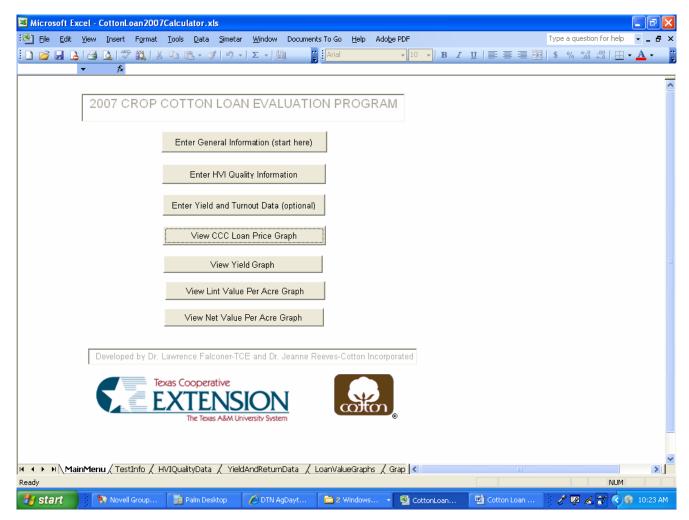


Figure 1. Cotton Loan Price Calculator Main Menu.

#### Introduction

The Cotton Loan Valuation Program is designed to facilitate calculation of Commodity Credit Corporation (CCC) cotton loan premium and discount values given high-volume instrument (HVI) classing information. If desired, this program has the capability to calculate net returns over harvest cost on a per acre basis. Results can be presented in both report and graphical formats. This program is primarily used for variety test evaluations, but it can be used without modification for other applications involving calculation of cotton loan values. This program is distributed as a MicroSoft© Excel spreadsheet. This spreadsheet is menu driven. For the program to perform properly, the user must have the Excel macro security set to medium or low level. To set macro security, select Tools from the Main Menu, Macro from the Tools menu then Security which will invoke the Security Level dialog box. You will have to exit Excel for these changes to take effect.

#### **Enter General Information**

The user should start by selecting the **Enter General Information** button on the Main Menu, show in Figure 1. To start a new analysis, the user should click on the **Clear All Existing Data** button found on the **Enter General Information** 

screen to clear the spreadsheet (Figure 2). The user may then proceed to specify the title that will be printed on reports and graphs for these data. The user next enters the 2007-Upland Cotton Warehouse Loan Rate that is applicable to the area that the cotton was raised. This value serves as the base from which any premiums or discounts are applied. The user may click on the hyperlink to the right of the warehouse loan rate cell to access the USDA web-site that contains loan rate information for certified warehouses. The user should note that information related to input on any cell can be obtained by moving the cursor over the particular cells marked with a red note marker in the upper right corner of that input cell. (See Figure 2) If the user desires to calculate a return above harvest costs, the user needs to enter a value in the cell directly to the right of the label Seed Value (\$/ton). An example entry would be 90.00 for ninety dollars per ton of seed. This value is used along with the estimated seed yield per acre to calculate an estimated value of seed per acre. The seed value is not a required entry if the user only wants to calculate the loan value of the cotton lint. If the user desires to calculate a return above harvest costs, the user needs to enter a value in the cell directly to the right of the label Picking/Stripping and Moduling Cost per Cwt of Seed Cotton. An example entry would be 3.20 for a cost of three dollars and twenty cents per hundred pounds of seed cotton. This value is used along with the turnout percentage for that variety (or treatment) to calculate an estimated harvest cost per acre. The picking/stripping and moduling cost is not a required entry if the user only wants to calculate the loan value of the cotton lint. If the user desires to calculate a return above harvest cost, then a value must be entered in the cell directly to the right of the label Ginning Cost per Pound of Cotton Lint. An example entry would be 0.10 for a cost of ten cents per pound of cotton lint. This value is used along with the lint yield for that variety or treatment to calculate a ginning cost per acre. The ginning cost is not a required entry if the user only wants to calculate the loan value of the cotton lint. When finished with entering the required and optional general information, the user should return to the main menu by clicking the **Return to Main Menu** button.

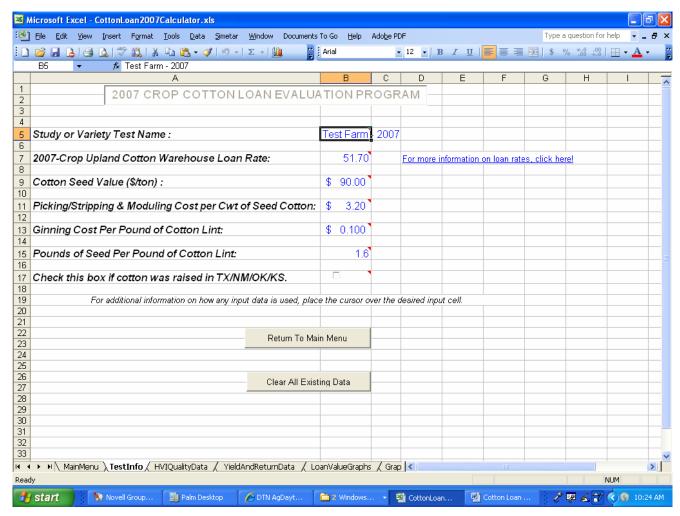


Figure 2. General Information Data Entry Screen.

## **Enter HVI Quality Information**

The user should click the Enter HVI Quality Information button on the Main Menu to access the section of the program that allows the user to enter all the require information to calculate the CCC loan premium and discounts for upland cotton. Figure 3, shown below, displays an example of all the input data required for the calculation of net loan prices. As shown above, an **entry needs to be made in the cell of the Variety column for any calculation to take place**. The remaining information is related to HVI classing results. In the example shown below, the HVI results for the first variety indicated that this cotton was 41-4 (color and leaf), micronaire of 5.0, length of 1.08 inches, strength of 28.2 grams per tex and a uniformity index of 83.3. The color grade and leaf are split into two columns, as shown below. There was no Extraneous Matter (Bark) entry for this sample. The eight columns beginning with the **Variety** column and ending with the **Uniformity** column are the only cells in which data should be entered. When the user has completed entry of the desired HVI data, clicking the printer icon on the toolbar can print a report. The user should then return to the **Main Menu** by clicking on the **Return to Main Menu** button located in the upper left hand corner of the spreadsheet.

File Edit Yiew	Insert	Forma	at <u>T</u> ool	s <u>D</u> ata	Simetar	<u>W</u> indow	Documents	To Go <u>H</u> e	elp Ado <u>b</u> e PDF				Type a questio	n for help 🕞	_
) 📂 🖫 💪 l 🎒	AB9		X 🗈	<u>r</u> - ⊲	3 4 -	Σ - [	ûı 🖺	Arial	<b>-</b> 10	• B I	ш   ≣ ≣	= =	\$ % 500	.00 ▼	A -
COMPANY -			ille 559												
D-1 T- W-1 - W-1				Test	Farm -	2007	7 HVI Da	ta and	Quality Inf	ormatio	n				
Return To Main Menu				7 000	, aiiii	2007	110100	ita ana	Quality IIII	Ommation	,				
	F								Grade & Length	Strength	Mike		Uniformity	Net	
									Premium	Premium	Premium		Premium	Loan	
						EM			or	or	or	EM	or	Price	
ariety	Color	Leaf	Mike	Length	Strength	Level	Uniformity	Staple	Discount	Discount	Discount	Discount	Discount	(cents/lb)	
oneville 5599BR	41	4	5.0	1.08	28.2		83.3	35	140		-260		25	50.75	
ayer 800BR	41	4	4.5	1.18	33.2		84.0	38	205	45			35	54.55	
ÁMCOT 96WD22	41	4	4.3	1.12	28.1		81.9	36	205					53.75	
⊇ 491	41	4	4.9	1.15	31.8		83.9	37	205	45			35	54.55	
ouglass King 212	41	4	5.3	1.06	30.1		82.2	34		25	-355			48.40	
&PL 449BG/RR	41	4	4.9	1.07	31.5		82.5	34		45			25	52.40	
ayer 958B	41	4	4.7	1.05	31.7		82.3	34		45				52.15	
ayer 991BR	41	4	4.9	1.09	32.3		83.5	35	140	45			35	53.90	
ayer 960BR	41	4	4.9	1.07	31.5		83.6	34		45			35	52.50	
ayer 989BR	41	4	4.9	1.10	31.2		84.4	35	140	45			35	53.90	
OG 245	41	4	4.4	1.16	34.7		83.6	37	205	45			35	54.55	
RPL 555BG/RR	41	4	4.7	1.08	30.5		82.4	35	140	45				53.55	
&PL 451B/RR	41	4	5.4	1.09	27.2		83.6	35	140		-355		35	49.90	
toneville 5303R	41	4	5.0	1.06	31.6		84.2	34		45	-260		35	49.90	
&PL Delta Pearl	41	4	4.9	1.09	30.7		82.5	35	140	45			25	53.80	
CG 28R	41	4	5.5	1.07	26.5		83.0	34			-355		25	48.40	
&PL 444BG/RR	41	4	4.5	1.13	29.7		83.8	36	205	25			35	54.35	
CG 24R	41	4	4.9	1.08	28.3		84.2	35	140				35	53.45	
ayer 832	41	4	4.3	1.23	37.4		84.2	39	205	45			35	54.55	
CG 30R	41	4	4.7	1.12	29.5		83.2	36	205	25			25	54.25	
ouglass King 310	41	4	4.9	1.11	31.5		83.9	36	205	45			35	54.55	
ayer 832	41	4	4.3	1.23	37.4		84.2	39	205	45			35	54.55	
ayer 819	41	4	4.8	1.12	29.5		85.8	36	205	25			55	54.55	
CG 295	41	4	4.7	1.13	30.1		83.0	36	205	25			25	54.25	
◆ ▶ ▶	/ Test	tInfo \	HVIQu	alityDat	a / YieldAi	ndReturr	nData / Lo	anValueGr	aphs / Grap						
ady			•											NUM	

Figure 3. HVI Data and Quality Information.

After entering the HVI data and returning to the **Main Menu**, the user can generate a graph that compares the CCC loan values for each variety by clicking on the **View CCC Loan Price Graph** button. The graph generated for this example is shown below in Figure 4. The user may then print the graph by selecting (left clicking on the graph) and clicking on the print icon on the toolbar, or selecting the print option from the pull-down menu File option. To return to the main menu, the user should click on the **Return to Main Menu** button.

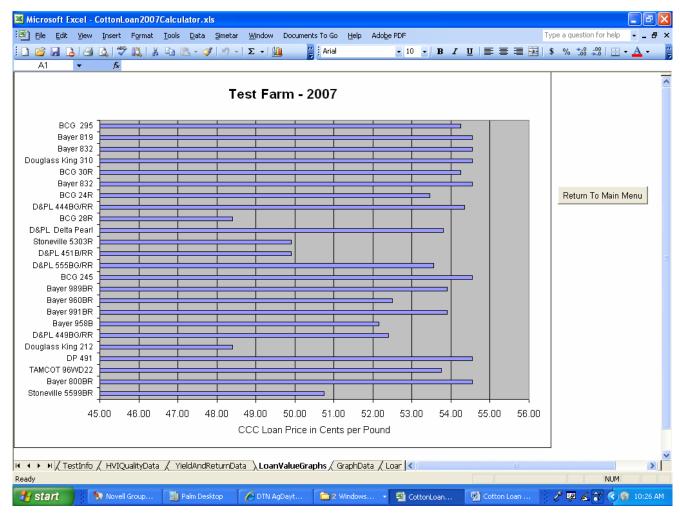


Figure 4. CCC Loan Price Graph.

# **Enter Yield and Turnout Data (Optional)**

As mentioned in the introduction, the user has the option to calculate estimated total loan and cottonseed returns above harvest and ginning costs per acre and to view and print this information in both graphical and tabular format. This process starts with the user selecting the **Enter Yield and Turnout Data** button from the Main Menu. The user would then proceed to enter **Lint yield** in pounds per acre and **Turnout percentage** for each variety. The turnout percentage is used to calculate the total amount of seed cotton yield per acre. This estimate is then used as a basis for the harvest cost per acre calculations. Ginning costs are based on lint yield specified for the variety and ginning cost per lint pound that was entered in the general information screen. The user should select the Return to Main Menu button to get back to the main menu after entering, viewing or printing the yield and per acre return information.

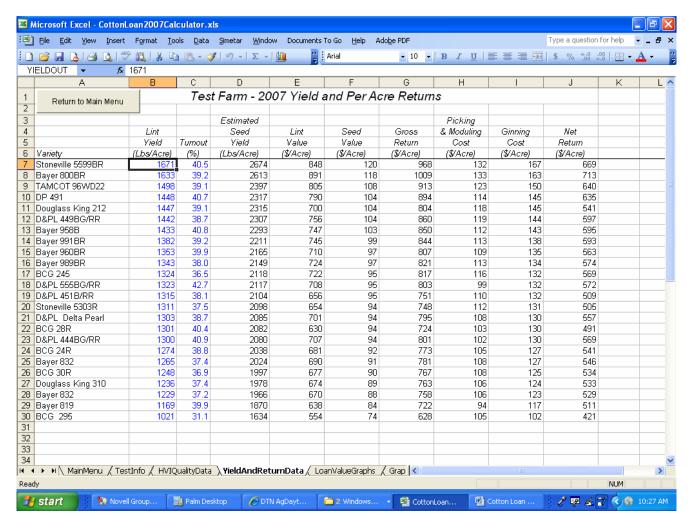


Figure 5. Yield and Turnout Entry and Net Return per Acre Calculation.

## **Saving Data Files**

To properly save a data file: First, select the **File** command from the Main Menu, then **Save As** from the File menu. The dialog box as shown in **Figure 6** should appear. The user should then enter a file name in the **File name** text box, and then click on the **Save** button. After saving the new file the first time, any updates to that data file can be saved by selecting the Save icon from the toolbar or the **Save** option from the File pull-down menu.

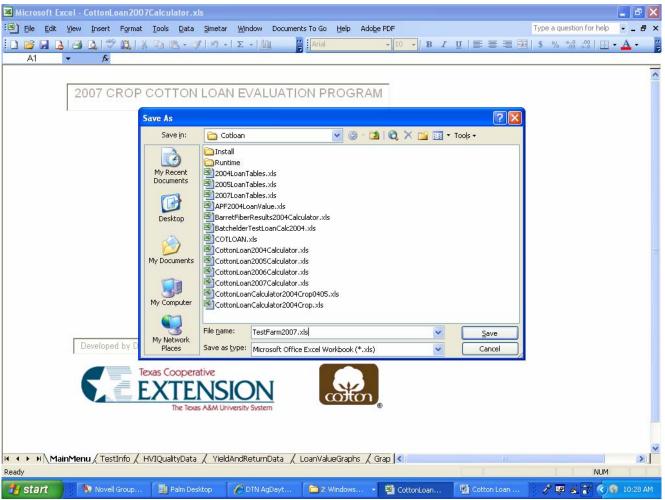


Figure 6. File Save Dialog Box.

# **Exiting the Program**

To exit the program, the user can close the Excel window or select the Exit option from the File pull-down menu.