## Cotton Loan Valuation Program Developed by: Larry Falconer, Texas AgriLife Extension Service 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, shown 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 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 values in the cells directly to the right of the label Cotton Seed Value (\$/ton), Picking/Stripping and Moduling Cost per Cwt of Seed Cotton, and Ginning Cost per Pound of Cotton Lint. These are not required entries if the user only wants to calculate the loan value of the cotton lint. However, the user needs to check the box to indicate if the cotton was raised in Texas, New Mexico, Oklahoma or Kansas as the discounts related to extraneous material cannot be properly calculated without that information. 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.

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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 4.9, length of 1.06 inches, strength of 24.5 grams per tex and a uniformity index of 81.3. The color grade and leaf are split into two columns, as shown below. There are no Extraneous Matter (Bark, Preparation or Other) entries for this sample. The 10 columns beginning with the **Variety** column and ending with the **Other** column are the only cells in which data should be entered, if applicable. The loan premiums and discounts will be calculated and shown in the **Net Loan Price** column. 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.

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8	Variety 2			41	4	4.8	1.03	25.8	81.9				33	-195					50.05	- 11
9	Variety 3			41	4	4.5	1.02	25.0	81.6				33	-195	-135				48.70	-11
10	Variety 4			41	4	4.3	1.09	25.4	80.6				35	85	-135				51.50	- 11
11	Variety 5			41	4	4.7	1.10	29.4	82.3				35	85					52.85	- 11
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### 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.

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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.



# **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.