User Guide - Upland Loan Calculator Program

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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.

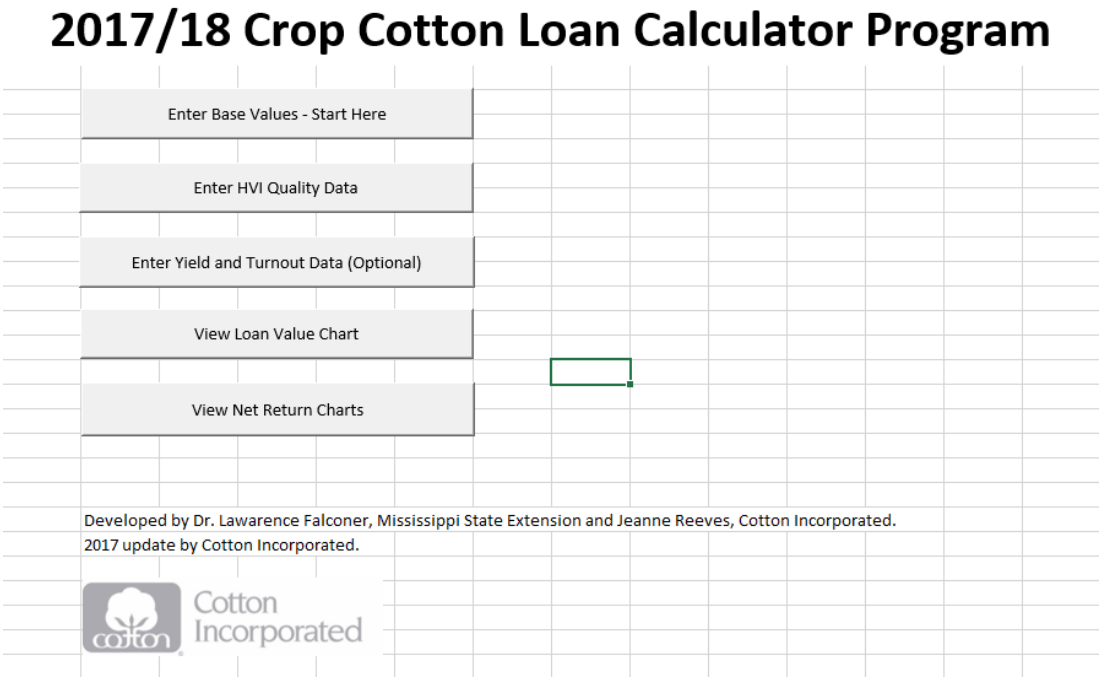
The program is distributed as a Microsoft© Excel spreadsheet. **For the program to perform properly, the user must enable Macros. It should be possible to enable macros by simply clicking allow content when you open the file. If that does not work, set macro security by clicking on File (top left corner of Excel), then select Trust Center, then click on Trust Center Settings. In the Trust Center menu, click on Enable all macros, then click Ok.**

In addition to the change to 2017 USDA loan values, the 2017 update of this program included a series of primarily cosmetic changes. Functionality, with respected to the ability to calculate loan values and estimate returns is the same.

Please note that certain cells are locked to prevent formulas from being changed. If you need to unlock any of the sheets, go to Review in the Excel ribbon at the top of the book, click Unprotect sheet, and enter "cottoninc" as the password. You can also right click on the sheet tab (at bottom, e.g., HVI Quality Data) and select unprotect sheet.

Questions, comments, and suggestions are welcome. Please send an email (cspmadmin@cottoninc.com), we are happy to help.

Figure 1. Program Main Menu



1. Enter Base Data

The user should start by selecting the **Enter Base Values** button on the Main Menu, shown in Figure 1.

To start a new analysis, the user should click on the **Clear Sample Values** button found on the **Enter Base Data** screen to clear the spreadsheet (Figure 2). The use should then enter values for each of the cells with blue text.

It should be noted that additional information regarding the use of the data in the program is available in comments for each of the cells with blue text. To view the comments, simply hover the cursor over these cells. Cells with comments are indicated by a tiny red triangle in the upper right corner of the cell (see Figure 2).

In cell B6, the user specifies the title that will be printed on reports and graphs for these data.

In cell B8, the user enters the base loan value in cents/lb.

In cell B18, check the box if the cotton is produced in TX, NM, OK or KS. There are bark discounts that can be applied to these regions.

Only cells B6, B8, and the checkbox in cell B18 are required to calculate loan values. If the user would like to generate estimates for returns, cells B10-B16 also require entries.

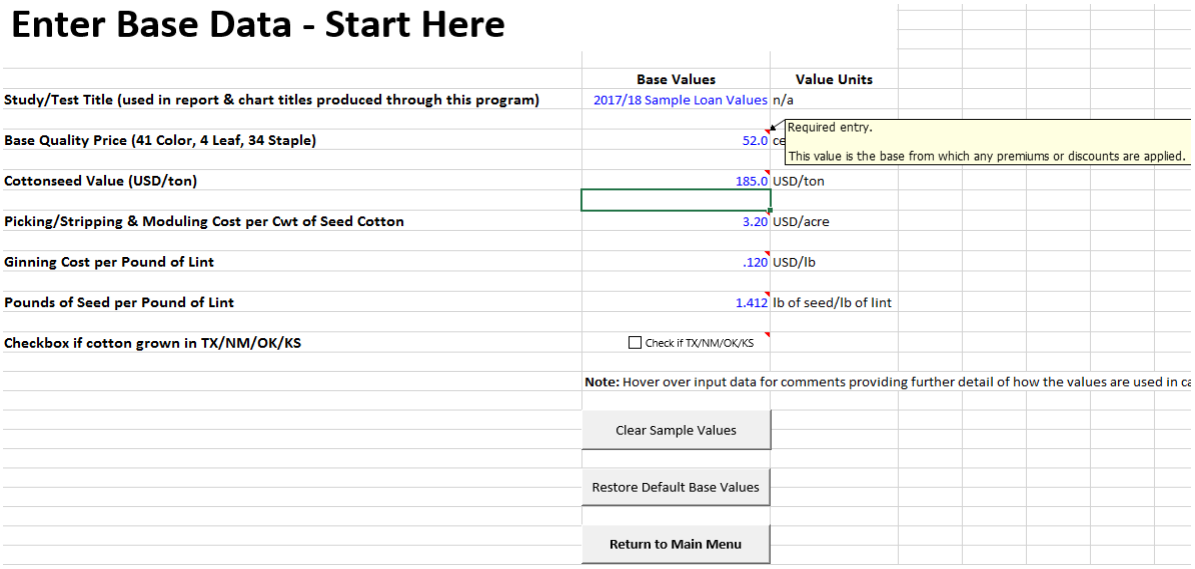
In cell B10, enter estimates of price per ton of cottonseed (USD/ton).

In cell B12, enter the cost of harvesting in terms of USD/acre.

In cell B14, enter the cost of ginning in terms of USD/lb.

In cell B16, enter the estimated amount of seed weight in pounds per pound of lint.

Figure 2. Base Data Sheet



2. Enter HVI Data

The user should go to the HVI Quality Data sheet 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.

Variety names can be changed in the Variety/Sample Name column.

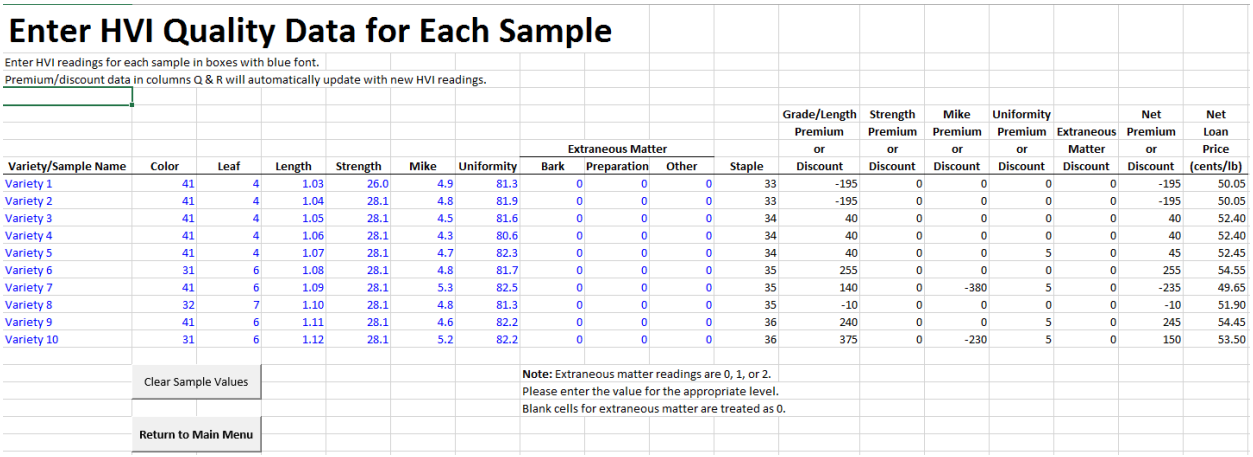
HVI data for color, leaf, length (in inches), strength, micronaire, length uniformity, and extraneous matter should be entered.

All of the cells with black text will update automatically with the entry of the HVI data.

Column Q gives the net change in the base loan rate due to quality differences.

Column R gives the net loan price in cents/lb (base rate plus net change due to quality differences).

Figure 3. HVI Quality Data



Enter HVI Quality Data for Each Sample

Enter HVI readings for each sample in boxes with blue font.
Premium/discount data in columns Q & R will automatically update with new HVI readings.

							Extraneous Matter				Grade/Length Premium or Discount	Strength Premium or Discount	Mike Premium or Discount	Uniformity Premium or Discount	Extraneous Matter Discount	Net Premium or Discount	Net Loan Price (cents/lb)
Variety/Sample Name	Color	Leaf	Length	Strength	Mike	Uniformity	Bark	Preparation	Other	Staple							
Variety 1	41	4	1.03	26.0	4.9	81.3	0	0	0	33	-195	0	0	0	0	-195	50.05
Variety 2	41	4	1.04	28.1	4.8	81.9	0	0	0	33	-195	0	0	0	0	-195	50.05
Variety 3	41	4	1.05	28.1	4.5	81.6	0	0	0	34	40	0	0	0	0	40	52.40
Variety 4	41	4	1.06	28.1	4.3	80.6	0	0	0	34	40	0	0	0	0	40	52.40
Variety 5	41	4	1.07	28.1	4.7	82.3	0	0	0	34	40	0	0	5	0	45	52.45
Variety 6	31	6	1.08	28.1	4.8	81.7	0	0	0	35	255	0	0	0	0	255	54.55
Variety 7	41	6	1.09	28.1	5.3	82.5	0	0	0	35	140	0	-380	5	0	-235	49.65
Variety 8	32	7	1.10	28.1	4.8	81.3	0	0	0	35	-10	0	0	0	0	-10	51.90
Variety 9	41	6	1.11	28.1	4.6	82.2	0	0	0	36	240	0	0	5	0	245	54.45
Variety 10	31	6	1.12	28.1	5.2	82.2	0	0	0	36	375	0	-230	5	0	150	53.50

Clear Sample Values

Return to Main Menu

Note: Extraneous matter readings are 0, 1, or 2.
Please enter the value for the appropriate level.
Blank cells for extraneous matter are treated as 0.

3. Yield and Turnout Data

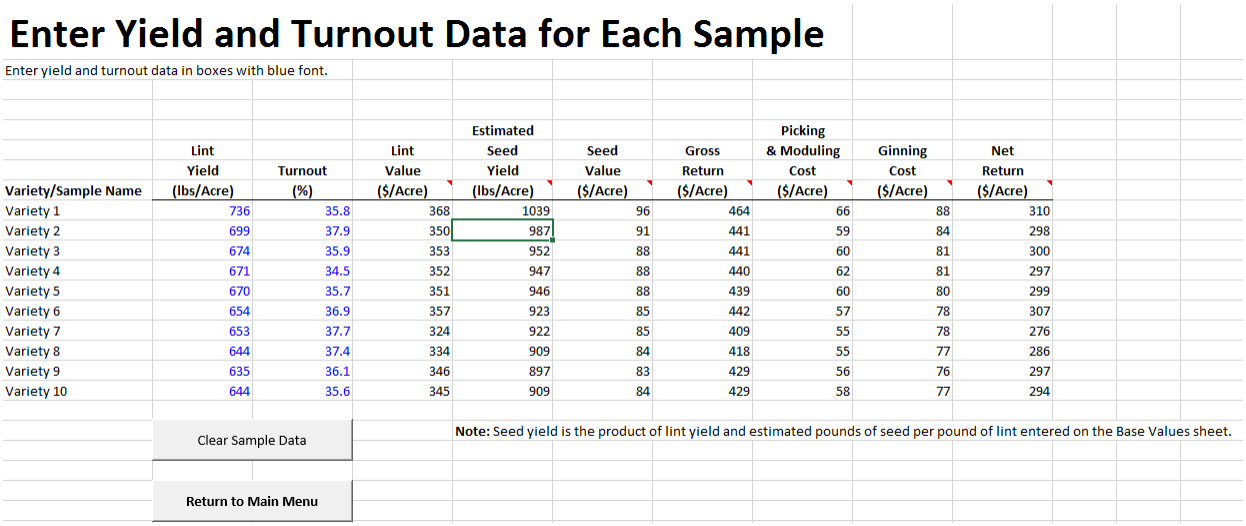
After entering the HVI data, the user can enter yield and turnout data in order to calculate estimates for net returns.

Lint Yield needs to be entered in column B.

Turnout needs to be entered in column C.

All of the derivations in columns D through J have comments explaining how the values were determined.

Figure 3. Yield and Turnout Data



Enter Yield and Turnout Data for Each Sample

Enter yield and turnout data in boxes with blue font.

Variety/Sample Name	Lint Yield (lbs/Acre)	Turnout (%)	Lint Value ($/Acre)	Estimated Seed Yield (lbs/Acre)	Seed Value ($/Acre)	Gross Return ($/Acre)	Picking & Moduling Cost ($/Acre)	Ginning Cost ($/Acre)	Net Return ($/Acre)
Variety 1	736	35.8	368	1039	96	464	66	88	310
Variety 2	699	37.9	350	987	91	441	59	84	298
Variety 3	674	35.9	353	952	88	441	60	81	300
Variety 4	671	34.5	352	947	88	440	62	81	297
Variety 5	670	35.7	351	946	88	439	60	80	299
Variety 6	654	36.9	357	923	85	442	57	78	307
Variety 7	653	37.7	324	922	85	409	55	78	276
Variety 8	644	37.4	334	909	84	418	55	77	286
Variety 9	635	36.1	346	897	83	429	56	76	297
Variety 10	644	35.6	345	909	84	429	58	77	294

Clear Sample Data

Return to Main Menu

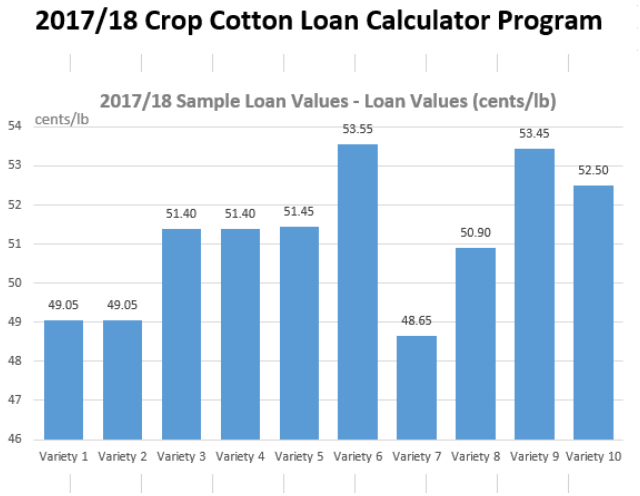
Note: Seed yield is the product of lint yield and estimated pounds of seed per pound of lint entered on the Base Values sheet.

4. Charts

There are two sheets with charts. All of the data in these charts update automatically when the data are entered on the other sheets (Base Values, HVI Quality Data, and Yield and Turnout).

The first chart sheet (Charts – Loan Value) contains only a chart of loan values.

Figure 4. Loan Value Chart



The second chart sheet (Charts – Net Return) contains loan values, lint yield, gross returns, and net returns.

Figure 5. Loan Value, Yield, Gross Return, and Net Return Charts