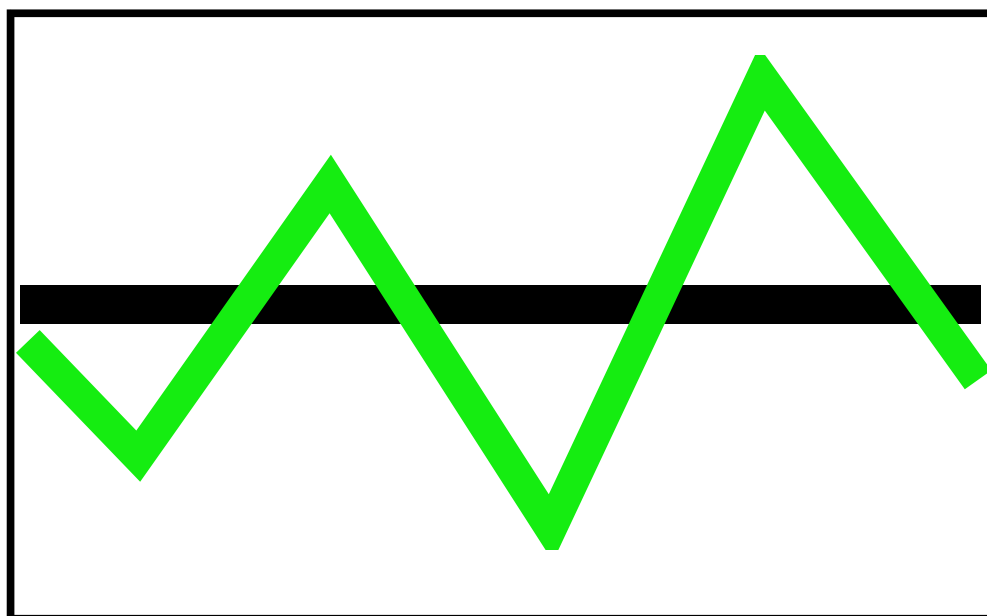


# Buy/Sell Margins Calculator

## Version 2.1

### User's Guide



Tammy McKinley  
Extension Assistant  
Agricultural Extension Service  
Agricultural Economics

Kevin Ferguson  
Area Specialist  
Agricultural Extension Service  
Farm Management

Emmit Rawls  
Professor  
Agricultural Extension Service  
Agricultural Economics

# Getting started with Buy/Sell Margins Calculator

## System Requirements

To use Buy/Sell Margins (BSM) Calculator, you should have the following:

- IBM or IBM compatible personal computer
- Hard disk with 1035 KB free disk space
- Windows 95 or 98
- A mouse that works in Windows

## Installing BSM Calculator

You must run SETUP from the installation disk to install BSM Calculator. To install BSM Calculator on your hard disk,

1. Select **S**tart **R**un.
2. Insert the BSM Calculator Setup disk into your 3.5" disk drive.
3. Type **a:setup** (or **b:setup**), then choose **OK**.

The setup program will look for a minimum of 1035 KB space on your hard disk before installing BSM Calculator. BSM Calculator will be installed into the **C:\BSM21** directory. After installing all needed files, the setup program will create a new group and install the BSM Calculator program icon.

## Starting the program

Select Start, Programs, BSM 2.1 to start the program

## Introduction

The buy/sell margin (the difference between a feeder calf or yearling purchase price and a sale price at some later date) is a critical component in the profitability of beef cattle backgrounding and finishing systems. In fact, the margin can make or break a producer in a single year.

Buy/sell margins are calculated as follows:

$$\text{cattle sale price} - \text{cattle purchase price} = \text{buy/sell margin.}$$

This program allows you to look at historical buy/sell margins for buy-sell periods that you select for heifers and steers. These historical buy/sell margins can give you some feel for the price risk exposure on purchased cattle as well as calves from a cow/calf program. The absolute buy/sell margins in dollars per hundredweight are one measure of price risk. The buy/sell margin is usually negative due to increase in weight, but it can be steady to positive depending on the time period being considered or whether cattle upgrade during the growing-finishing process.

As a beef producer, backgrounder, or feeder you must look at these margins relative to your estimated cost of gain. The negative buy/sell margin that you can tolerate and still break even is primarily a function of the relationship between the purchase price and the cost of gain. There are a few points you will want to keep in mind when looking at the margins calculated in the

Buy/Sell Margins (BSM) Calculator and comparing these to your estimated cost of gain. First, remember that if the cost of gain exceeds the purchase price, a positive buy/sell margin will be required to realize a profit. The second is that a cost of gain below the purchase price will permit a negative buy/sell margin. And finally, if the cost of gain is the same as the purchase price, the break-even price will also be equal to the purchase price.

Prices used in this program to calculate the historical buy/sell margins are the monthly averages from livestock auctions in Tennessee and Georgia and feedlots in Western Kansas, Oklahoma, and Texas (Southern Plains). The prices from Southern Plains were compiled by Livestock Marketing Information Center from Federal and State Market News data. The use of these averages does limit the program, because averages smooth out the actual highs and lows in the daily/weekly prices at these markets. You can however, see the overall general trend in prices using the monthly averages, and seasonal tendencies can be used to determine the “best” months for buying and selling cattle.

The BSM Calculator will calculate the minimum (worst), average, and maximum (best) buy/sell margins for the past 10 years (5 years for Holstein steers) based on your selections of both buying and selling months, state, sex, weight ranges, and grades.

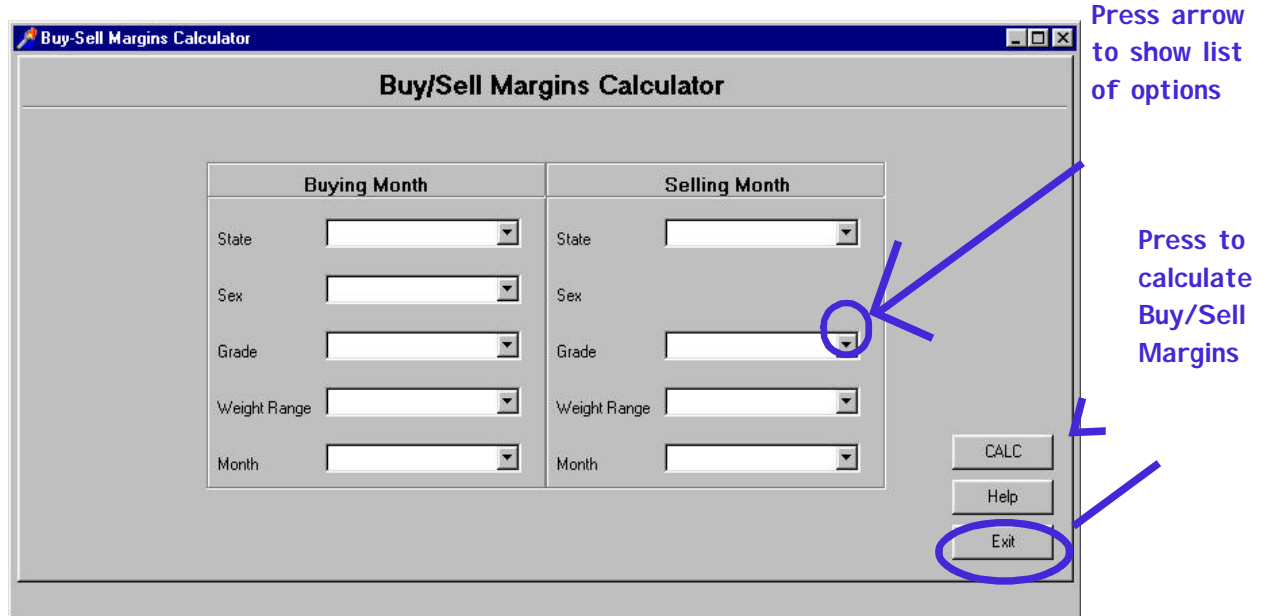
## Entering Information

The input screen of the BSM Calculator presents two boxes which include information for the buying and selling months needed to calculate the minimum, average, and maximum buy/sell margins.

To make your selection for each item, press the down arrow on the right side of the box shown for each item (see Figure 1). This will show a list of options from which you can make your selection. Highlight your choice and continue this process until you have completed all the items for both months.

To calculate the minimum, average, and maximum buy/sell margins for the past ten years based on your selections, press the CALC button in the lower right corner of the screen (see Figure 1). These calculated margins are intended to make you aware of the average and extreme margins over the past ten years. Remember that historical price patterns are not a guarantee of future prices, but provide a picture of how prices have typically behaved.

Figure 1  
Input screen



### *Special Options*

There are several special cases considered in the BSM Calculator, the first of which is the buying and selling of Holstein steers for a backgrounding program. The historical margins calculated for Holstein steers are only for the last 5 years due to lack of complete price data. The grade used for the Holstein steers is Large Frame No. 2. This is the only grade available for Holstein steers. This option is available for Tennessee only.

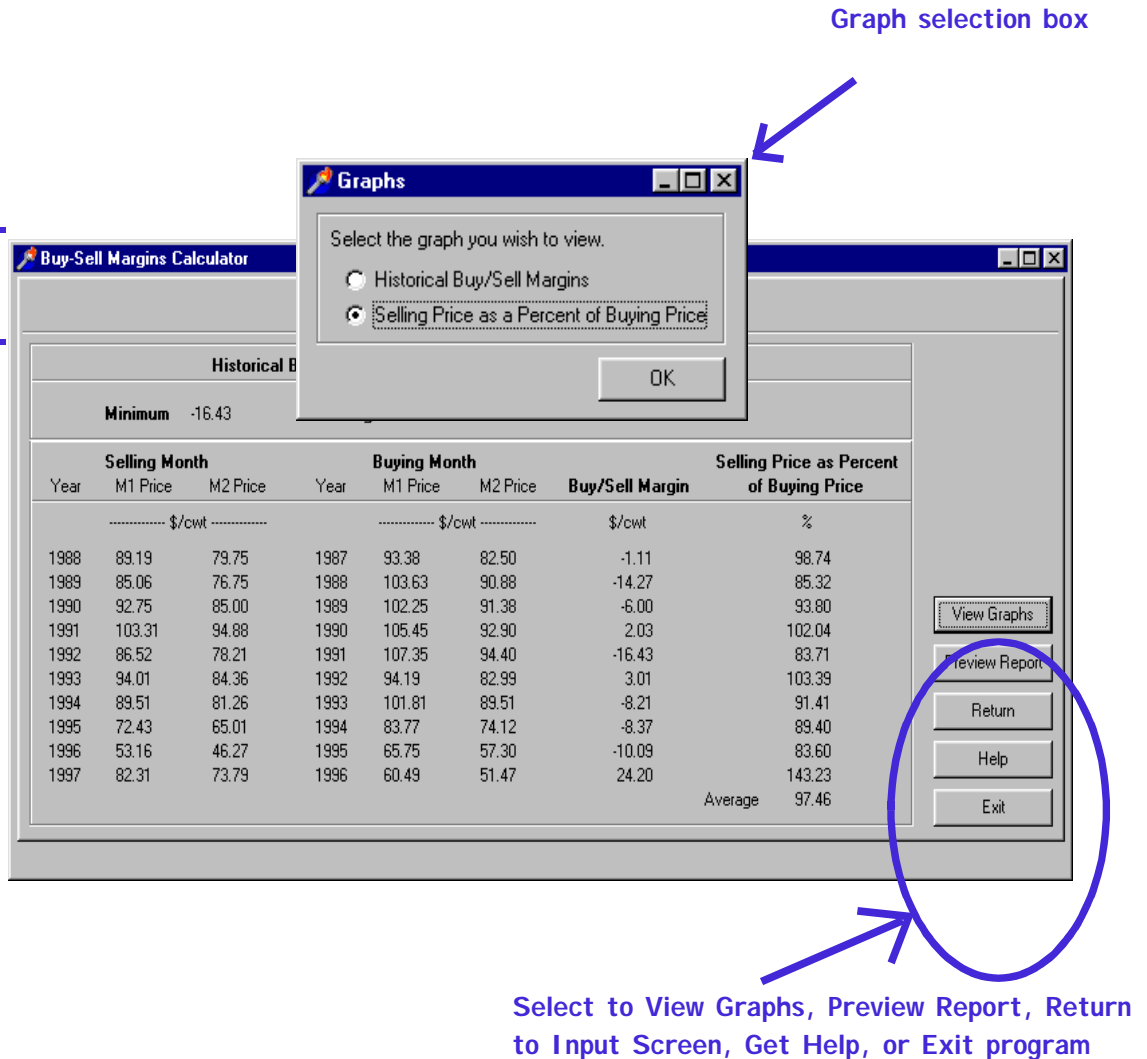
The next special case considered in the BSM Calculator is that of buying and/or selling a mix of Medium Frame No. 1 and Medium Frame No. 2 cattle. Some producers may choose to purchase either all Medium Frame No. 2 or a mix of Medium Frame No. 2 and Medium Frame No. 1 cattle, planning on some of them upgrading to No. 1 at a heavier weight. The program allows the user to select the percent of cattle that are expected to be purchased or sold as Medium Frame No. 1. This percentage is then used to calculate weighted average buy/sell margins for the past ten years for either buying or selling Medium Frame No. 1 and Medium Frame No. 2 cattle at the selected weight range and in the selected months. The minimum, average, and maximum buy/sell margins reported are based on the weighted average buy/sell margins. This option is available for Tennessee only.

The final special case considered in the BSM Calculator is that of selling finished cattle from a Southern Plains feedlot. This option is available by choosing Southern Plains as the selling state. A grade of Medium Frame No. 1 and weight range of 1100-1300 pounds is used for all finished cattle sold from Southern Plains states. Southern Plains feedlot prices are from Western Kansas, Oklahoma, and Texas for Choice finished cattle. The same market prices are used for finished heifers and steers. When considering the buy/sell margins for a finishing system, a freight charge of \$3-\$4 per cwt should be deducted from the margin.

## Results Screen

The results screen of the Buy/Sell Margins Calculator is shown in Figure 2. It presents the historical buying and selling prices, historical buy/sell margins, the minimum, average, and maximum buy/sell margins over the last ten years and the selling prices as a percent of the buying prices over the last ten years. See the Summary Report section to learn how to print this information.

Figure 2  
Results Screen



### *Selling Price as a Percent of Buying Price*

The selling price as a percent of buying price is another way of using the buy/sell margins which can make you aware of the percentage of the buying price you can expect to receive as a selling price at a later date. You may also use the average percentage to predict your selling price from an actual buying price. The projected price assumes the future percentage would be the same as the past, on average. Again, these percentages are based on the selections you made on the input screen.

## Viewing Graphs

In the BSM Calculator there are two graphs you can view and/or print which are based on your selections. To view a graph press the View Graphs button in the lower right corner of the results screen (see Figure 2). A selection box will appear for you choose the graph you wish to view by highlighting its title and pressing OK. From this graph view page you may print the graph by pressing the Print button in the lower right corner of the screen. A preview page will be presented from which you can then change printer and page settings as needed and print the graph.

### *Historical Buy/Sell Margins*

The first graph you can view is the Historical Buy/Sell Margins graph. This graph presents the buy/sell margins for the last ten years based on the selections you made on the Input Screen. Also shown in this graph is a line which represents the average buy/sell margin for those ten years. If you chose the "Mix of No.1 and No. 2" buying or selling grade option, the graph presents the historical weighted average buy/sell margins along with the average of these margins for the past ten years, based on the percentages of Medium Frame No. 1 cattle you expect to be bought or sold.

### *Selling Price as a Percent of Buying Price*

The second graph you can view is the Selling Price as a Percent of Buying Price graph. This graph presents the selling prices as a percentage of the buying prices for the ten years and a line representing the average percentage over the period. If you chose the "Mix of No. 1 and No. 2" buying or selling grade option, the percentage represented will be the weighted average selling price as a percent of the weighted average buying price along with the average of these percentages.

## Summary Report

You can view and/or print a summary report which includes the buying and selling month selections you made, the minimum, average, and maximum buy/sell margins which were calculated, the historical buying and selling prices and buy/sell margins, and the historical and average selling price as a percent of buying price percentages. To preview the report press the Preview Report button in the lower right corner of the results screen (see Figure 2). If you wish to print the report you can set the printer and page layout options to better fit your printer by using the button bar at the top of the preview screen.

## Getting Help

Help is provided online with the BSM Calculator. To get help with a certain object, click on the object with the left mouse button and then press the F1 key. You can also select the HELP button in the lower right corner of the input or results screens to receive help.

## Exiting the program

To exit the program you can press the EXIT button in the lower right corner of the input or results screen.

## Buy/Sell Margin Options

Item	Options
State	TN GA Southern Plains*
Sex	Heifer Steer Holstein Steer**
Grade	Medium Frame No.1 Medium Frame No. 2 Mix of No. 1 and No. 2*** Large Frame No. 2**
Weight Range	300-400 lbs 400-500 lbs 500-600 lbs 600-700 lbs 700-800 lbs (Steers ONLY) 1100-1300 lbs*
Month	JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

\* Southern Plains feedlot prices are from Western Kansas, Oklahoma, and Texas for Choice finished cattle. The same market prices are used for finished heifers and steers. In budgeting a finishing system, a freight charge of \$3-\$4 per cwt should be added to transport cattle to a custom feedlot. A grade of Medium Frame No. 1 and a weight range of 1100-1300 pounds is used for all finished cattle.

\*\* Buy/Sell Margins calculated for Holstein steers are for the past five years. A grade of Large Frame No. 2 is used for Holstein steers for the buying and selling months. This option is available for only Tennessee.

\*\*\* This option is available for only Tennessee.

This software was developed cooperatively by  
The University of Tennessee Agricultural Extension Service  
and University of Georgia Cooperative Extension Service  
with support from The United States Department of Agriculture  
Fund For Rural America program.

E12-2015-00-032-99



*A State Partner in the Cooperative Extension System*

The Agricultural Extension Service offers its programs to all eligible persons  
regardless of race, color, age, national origin, sex or disability and is an Equal Opportunity Employer.

**COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS**

The University of Tennessee Institute of Agriculture, U.S. Department of Agriculture,  
and county governments cooperating in furtherance of Acts of May 8 and June 30, 1914.

Agricultural Extension Service

Billy G. Hicks, Dean